

**MD 2023 SB 516 Columbia Gas Testimony Final.pdf**

Uploaded by: Carville Collins

Position: FAV

**SUPPORT – Senate Bill 516  
Cannabis Reform Act of 2023  
Senate Finance Committee**

Columbia Gas of Maryland, Inc., a natural gas utility providing energy to more than 33,000 customers in Maryland’s western counties of Allegany, Garrett and Washington, supports Senate Bill 516, as currently written. Senate Bill 516 creates the licensing and regulatory framework for the sale of cannabis in Maryland on and after July 1, 2023. Columbia Gas understands the citizens of Maryland approved the adult use of cannabis in 2022, however, among the company’s most vital concerns are the safety, health and well being of its employees and customers in Maryland.

Our employees and customers have the right to work and interact with persons free from the effects of drugs. Drug use by utility employees can adversely affect their health, impair their ability to safely and effectively perform their jobs, and jeopardize the safety of other employees and customers in our service territory. Because Columbia Gas is subject to federal Department of Transportation rules and regulations, its employees are expected to report for work with no illegal drugs in their bodies including cannabis. Compliance with this requirement is considered an essential qualification for all job assignments.

Subtitle 13 of Senate Bill 516, as currently written on page 72 of the bill, provides for employer protections to deny employment and allow discipline of an employee or contractor who tests positive for cannabis in accordance with the employer’s established drug testing policy - Section 36-1301(F). Columbia Gas strongly supports this provision and believes it is critically needed legislative language in the bill. Without these safety related employer protections, Columbia Gas would be unable to support the legislation.

Columbia Gas is concerned the House Economic Matters Committee struck Subtitle 13 of their version of the Cannabis Reform Act, HB 556, during its consideration of the legislation. Should HB 556 be passed by the full House of Delegates and sent to the Senate for consideration, we strongly urge the Senate keep the vitally important employer protections of Subtitle 13 as part of any final legislation that may be sent to the Governor.

Columbia Gas believes the requirements of Senate Bill 516 are appropriately and reasonably crafted policies on the adult use of cannabis and supports the legislation as currently written.

March 9, 2023

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# **David-Borden-Maryland-Senate-Finance-Committee-tes**

Uploaded by: David Borden

Position: FAV

Testimony by David Borden, Executive Director of StoptheDrugWar.org  
Maryland Senate Finance Committee, hearing on SB 516 Cannabis Reform bill  
March 9, 2023, Annapolis

Thank you, committee members, for advancing this legislation. I am the founder and executive director since 1993 of StoptheDrugWar.org. We support SB 516, but urge adding language to Subtitle 15 to make it extra clear that payment processor transactions for purchasing cannabis are protected and welcome in Maryland. Our advisors in cannabis law believe the general terms used in current language, "service providers" and "financial services," are too broad.

Our concern here is worker safety. In December we published a report analyzing a surge of armed robberies of cannabis stores that took place in Washington State between November 2021 and April of last year. This time period saw nearly 100 documented armed robberies affect roughly 80 cannabis stores, and ended with three people dead.

Our analysis found that cash from purchase transactions was the primary target of these robberies. We also found that robberies targeting the back of a store, which in all but a few cases were done to obtain cash from a safe, exhibited greater average aggression levels than robberies targeting only the front.

Note that Washington has a stable depository system for the cannabis sector, through the state's credit unions. This is critically important, but as these tragic events show, is not enough.

Maryland regulators may fully accept cannabis payment processing. But if top-level transaction processors like Visa and Mastercard don't respond in kind, it will limit the availability, affordability, and in some cases legal viability of payment systems in the sector. Those top processors in turn have the least need to take on even unlikely risks, due to their sheer scale.

Hence our suggestion of making the relevant language extra clear. As an example I note Pennsylvania's SAFE Banking Act of 2022, SB 1167. We also urge direct engagement with credit unions, or state-chartered banks generally, to ensure success with depository services.

We commend the inclusion of financial services protections in SB 516, and hope our suggestions may be of use. Thank you.

**mwc\_sb516\_testimony.docx.pdf**

Uploaded by: Dyana Forester

Position: FAV



# Metro Washington Labor Council, AFL-CIO

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*An AFL-CIO "Union City"*

09 March 2023

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Senator Melony Griffith  
Senate Finance Committee

3 East  
Miller Office Building  
Annapolis Maryland, 21401

Madam Chair, Madam Vice Chair, and members of the Senate Finance Committee:

On behalf of the Metropolitan Washington Council, AFL-CIO, and the 150,000 members we serve throughout the Metro Washington area, I am testifying favorably with amendments to **Senate Bill 516 - The Cannabis Reform**.

When Maryland started addressing the use of Cannabis, I was the Political Director for UFCW Local 400. Since that time, this state has legalized the use of Cannabis for both medicinal and recreational purposes.

The Maryland General Assembly has taken thoughtful steps when researching and crafting legislation to close the divide between communities of color and the industry. As the daughter, mother, aunt, and grandmother of black children, especially men, I am happy to see legislation that undoubtedly creates a pathway for people of color (POC) to access the wealth many of us have too long been denied.

However, we know that via this legislation that licensing is limited. In addition, to limited licensing rollout, the general assembly must address the express barriers for people of color to own and have access to capital. Federal and state legislation needs to be changed for POCs to access business start-up loans. Until we remove these barriers of entry to an industry that relies on cash that only traditionally white entrepreneurs have immediate access to, we still come up short.

Furthermore, we all understand that there will be entrepreneurs and workers in a free market. If the state plans to invest in ownership, we need to make sure the companies have the same commitment to train, pay and create wealth opportunities for their workers.

***Bringing Labor Together Since 1896***

***[www.dclabor.org](http://www.dclabor.org)***

Cannabis is a multi-billion dollar industry that creates jobs in several sectors, such as security, agriculture, retail, and beyond. With LPAs, we, as Marylanders, can allow workers to be represented and discuss cases of egregious worker exploitation due to organizing.

We know that when this body ensured Labor Neutrality in Gaming legislation, workers were guaranteed quality wages, benefits of a union, job training, and other fringe benefits that continue to help grow America's middle class and not shrink it.

Now we have that same chance to provide workers in the Cannabis industry with the same benefits. The government, the business community, and labor have formed great partnerships in the past to create a better Maryland. So, We should do so again by including Labor Peace in **Senate Bill 516**

I look forward to working with this committee and other stakeholders to pass this legislation with amendments. Thank you for your time and consideration.

In Solidarity

Dyana Forester

President

# **SB 516 - Cannabis Reform GBCOC Statement.pdf**

Uploaded by: Ellen Coren

Position: FAV



**TESTIMONY IN SUPPORT OF SB 516—CANNABIS REFORM**

**BY THE GREATER BETHESDA CHAMBER OF COMMERCE**

**SENATE FINANCE COMMITTEE**

**MARCH 9, 2023**

The Greater Bethesda Chamber of Commerce (GBCC) was founded in 1926. Since then, the organization has grown to more than 550 businesses located throughout the Greater Bethesda area and beyond. On behalf of these members, we appreciate the opportunity to provide written comments on Senate Bill 516—Cannabis Reform.

The cannabis industry is one of the country's fastest growing industries. Nationally, an estimated 428,000 people now work in the legal cannabis industry, and that number will only continue to increase. The Greater Bethesda Chamber of Commerce supports this industry as it is an important part of Maryland's economy, now and moving forward.

We support what many surrounding states have already done, which is to legalize cannabis for adult use. However, we are agnostic on the regulatory approach the state takes, including the licensing structure, and would simply hope that whatever tax structure the committees deem appropriate would allow the State to compete with the illicit market and prevent diversion of legally produced cannabis into the illicit market.

In addition, we do support the employer protections included in the bill on page 72, lines 16-22. Language like this is important, especially in those industries that are safety-sensitive.

For these reasons, we respectfully request a favorable vote on Senate Bill 516.

# **SB516 Cannabis Reform 1199 SEIU.pdf**

Uploaded by: Loraine Arikat

Position: FAV





Testimony in Support of SB516  
Cannabis Reform

Dear Chair Griffith and Members of the Finance Committee:

My name is Ricarra Jones, and I am the Political Director of 1199SEIU United Healthcare Workers East. We are the largest healthcare workers union in the nation – representing 10,000 healthcare workers in long-term care facilities and hospitals across Maryland. Our union is supporting SB516 to establish equity in the cannabis market by ensuring that the licensing and approval process is equitable.

As we know, Marylanders overwhelmingly voted to approve the sale and recreational use of marijuana which will become legal on July 1<sup>st</sup>. **We must prevent making the same mistakes we made in the medical marijuana industry**, when the states medical cannabis licensing process was a blind application process that resulted in a first round of licenses being awarded almost entirely to white entrepreneurs. The General Assembly has committed to distributing licenses equitably and lawmakers have set aside \$40 million in the state budget to assist minority businesses.

In order to make sure we are not leaving behind the people who have “previously been disproportionately harmed by the war on drugs,” **a new office of Social Equity in the cannabis division should be established to promote participation from these communities**. We must create a Community Reinvestment & Repair Fund to allocate money to traditionally affected communities as well as create a Cannabis Business Assistance Fund to increase minority participation in the program.

We are excited to be able to create black and brown wealth here in Maryland with the incoming cannabis industry. We strongly believe that the most equitable and sustainable way to do that is through **labor peace agreements**. LPA's imposes obligations on BOTH parties - employers would have to respect and remain neutral if/when their workers decide to organize, and labor organizations would not be allowed to interfere with the employer's business. LPA's are important because workers need to be protected. We have all seen what happens when workers try to organize without LPA's (Starbucks, Amazon, ect). Workers are harassed, targeted, and fired. Labor laws are woefully inadequate to protect workers and their right to organize.

**The cannabis industry is one of the fastest growing industries in the nation**, and the state reported cannabis dispensaries had nearly \$41 million in revenues in December alone. As the cannabis industry grows, regulations with a labor peace agreement will support workers’ ability to obtain a fair share of this economic growth while reducing racial and gender inequality. **We must protect public health, establish a regulated recreational cannabis market, and keep people out of jail**. These communities, primarily of color, can not be left behind because we will not be able to catch up. SB516 will ensure that we legalize Maryland right and for the reasons above and more, we urge the committee to issue a favorable report.

In unity,

Ricarra Jones  
Political Director, 1199SEIU  
Ricarra.jones@1199.org

**ATACH SB 516 Written Testimony (01354461xC689E).pd**

Uploaded by: Neil Willner

Position: FAV



## AMERICAN TRADE ASSOCIATION FOR CANNABIS AND HEMP

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| 712 H ST NE, #518 Washington, D.C. 20002 | [www.atach.org](http://www.atach.org) |

March 9, 2023

### **VIA ELECTRONIC SUBMISSION**

Maryland Senate Finance Committee  
3 East  
Miller Senate Office Building  
Annapolis, Maryland 21401

Dear Maryland Senate Finance Committee:

The American Trade Association for Cannabis and Hemp (“ATACH”) is a 501(c)6 trade organization that promotes the expansion, protection and preservation of businesses engaged in the legal trade of industrial, medical, and recreational cannabis-based and hemp-based products. ATACH has been named “Trade Association of the Year” and “Corporate Grassroots Organization of the Year” by *Campaigns & Elections* magazine. ATACH’s membership includes some of the most influential businesses as well as state, national, federal and international cannabis trade associations and organizations. ATACH has also entered into a historic memorandum of understanding with ASTM International to develop standards for the cannabis industry and has recently launched a pilot Cannabis Certification Program in conjunction with ASTM International and the Policy Center for Public Health and Safety to help standardize the cannabis industry.

ATACH applauds the goals of the Cannabis Reform Act to expand social equity, create additional tax revenue for the state of Maryland, and create a safe, regulated program which allows for adult-use cannabis sales beginning this summer. Given ATACH’s national membership, including many cannabis businesses in states that recently implemented adult-use programs (Missouri, New York, New Jersey, Connecticut, to name a few) we are uniquely situated to provide insights into avoiding roadblocks effecting the successful launch of new adult-use programs.

To that end, *all* cannabis-derived products with intoxicating effects should be regulated, taxed and controlled in the same manner regardless of their source. We support language that prioritizes public health and consumer safety by requiring consumable products with an even potentially intoxicating amount of cannabinoids to be regulated, taxed and controlled within the adult-use framework.

Not only will regulating, taxing and controlling intoxicating cannabis products in a similar manner promote public health and safety, but it will also allow the state of Maryland to recoup critical tax dollars that are needed to support its essential social-equity based goals.

ATACH thanks the Senate Finance Committee for the opportunity to testify about these important issues and remain eager to engage lawmakers to continue strengthening the cannabis industry.

Sincerely,

A handwritten signature in black ink, appearing to be 'M Bronstein', written on a light-colored background.

Michael Bronstein  
**President and Co-Founder**  
**American Trade Association**  
**For Cannabis and Hemp**

# Senate Bill 516.pdf

Uploaded by: Abigail Diehl

Position: FWA

**Senate Bill 516 – Cannabis Reform**  
**March 9, 2023**  
**Favorable with amendments**

Hello ☀️

My name is Abigail Diehl, born and raised in Maryland for over 40 years and a local Annapolis resident for nearly half my life.

I have been working in the Maryland Medical Cannabis Industry since the application process in 2015. As well, I have worked with farmers throughout Maryland my whole life as my family owns a produce market, Diehl's Produce, in Severna Park.

As a serial entrepreneur, I have founded and operated multiple businesses in the area, including but not limited to Diehl's Produce (Eastport), Sunny C's LLC, and our newest venture, West Street Strategies. We are always doing our best to support Maryland in every way possible.

**We are in FULL support of SB0516 with the following amendments please:**

**Pg.37 Line 5 “FEET, BUT NOT MORE THAN 100,000 SQUARE FEET, OF INDOOR CANOPY OR ITS”**

\*any operation already over 100,000 square feet can use the extra space for incubator license and receive grant money for partnership with social equity license\*

As of now the rough comparisons for canopy space starting July 1<sup>st</sup> have the top operator at 300,000 square feet of canopy with the 2 next largest just over 100,000 square feet each, resulting in one wealthy white man controlling almost a third of the entire market. If we cap every operator at 100,000 square feet we at least allow a chance of survival for the future social equity licenses we are trying so hard to support.

**Pg.40 Line 9 “PREAPPROVED EXPANSION AND 25%.”**

If an operator was previously already expanding, they should still be allowed the 25% opportunity that everyone else is awarded.

**Pg.40 Line 18 “CANOPY THAT EXCEEDS 100,000 SQUARE FEET OR ITS EQUIVALENT, AS”**

Again, if we cap all operators at 100,000 rather than 300,000 square feet we also avoid oversaturation of product enhancing an already existing black market.

The consultants said we need about 4 million square feet of canopy for the adult use market.

Other industry experts believe that number to be closer to 2 million square feet. With the 300,000 square feet limit we are allowing for well over 22 million square feet. If we change that limit to 100,000 square feet, as desired by most of the market, we quickly drop the total canopy to about 8 million square feet, still high however much closer to the 2-4 million projected.

Please feel free to reach out with any questions or concerns!!

Thank you so much for your time and consideration!! Really appreciate you and everything you do!!

Cheers,  
Abigail Diehl  
[adiehl@sunnyc.us](mailto:adiehl@sunnyc.us)  
(443)569-2003

# **Copy of SB516\_City of Havre de Grace\_Rybczynski\_FW**

Uploaded by: Adam Rybczynski

Position: FWA





# City of Havre de Grace

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March 9, 2023

The Honorable Melony Griffith, Chair  
Senate Finance Committee  
3 East  
Miller Senate Office Building  
Annapolis, Maryland 21401

## **Re: Favorable With Amendments - SB 516 - Cannabis Reform**

Madam Chair and the Honorable Members of the Senate Finance Committee:

The Mayor and City Council of Havre de Grace (“the City”) supports SB 516 with amendments. If passed, the bill would establish the needed statutory framework for the use of medical and adult-use cannabis. The City respectfully requests the Economic Matters Committee give SB 516 a favorable report with the following amendments.

### **Suggested Amendment To SB 516 Number 1.**

On Page 50, in line 13, after “COUNTY” strike “AND, IF APPLICABLE” and substitute with **or:**

(2) AN ON-SITE CONSUMPTION ESTABLISHMENT MAY OPERATE ONLY IF THE COUNTY ~~AND, IF APPLICABLE,~~ **OR** THE MUNICIPALITY, WHERE THE BUSINESS IS LOCATED HAVE ISSUED A PERMIT OR LICENSE THAT EXPRESSLY ALLOWS THE OPERATION OF THE ON-SITE CONSUMPTION ESTABLISHMENT.

**Suggested Amendment To SB 516 Number 2.**

On Page 50, in line 17, after “COUNTY” strike “AND, IF APPLICABLE” and substitute with **or**.

(B) SUBJECT TO THE LIMITATIONS IN § 36–405 OF THIS SUBTITLE, A COUNTY ~~AND, IF APPLICABLE~~, **OR** A MUNICIPALITY MAY:

**Suggested Amendment To SB 516 Number 3.**

Under Division III. Cannabis, Subtitle 1. Definitions.

- Add a definition for the term impaired and provide guidance on how to determine if an employee is impaired.
  
- Add a definition for the term employer.

**Suggested Amendment To SB 516 Number 4.**

On page 72, in line 3, after (E)(1), insert **(I) Possessing Cannabis in the workplace.**  
In line 3, strike (I) and substitute with **(II)**; in line 4, strike (II) and substitute with **(III)**.

(E) (1) THIS SECTION DOES NOT PREVENT A GOVERNMENT EMPLOYER FROM DISCIPLINING AN EMPLOYEE OR A CONTRACTOR FOR:

- (I) POSSESSING CANNABIS IN THE WORKPLACE;**  
**(~~II~~) INGESTING CANNABIS IN THE WORKPLACE; OR**  
**(~~III~~) WORKING WHILE IMPAIRED BY CANNABIS.**

**Suggested Amendment to SB 516 Number 5.**

On page 72, subsection (F) clarify if (F) applies to government employees or private employees, or both.

**Suggested Amendment to SB 516 Number 6.**

The General Assembly should establish a funding mechanism for local law enforcement agencies to assist with the cost of having officers obtain a Maryland Drug Recognition Expert certification.

**Suggested Amendment to SB 516 Number 7.**

The General Assembly should require guidelines to be adopted in regulation that assists employers and human resource professionals in determining when an employee is under the influence or impaired by cannabis.

**Suggested Amendment to SB 516 Number 8.**

The General Assembly should clarify the implications this legislation, if passed, would have on law enforcement officers. Does the use of adult-use or medical cannabis conflict with existing statutory or regulatory provisions law enforcement officers currently must comply with?

# **UFCW Testimony for MD Senate Finance Committee 3.9**

Uploaded by: Alexander Clayborne

Position: FWA



**Testimony of  
AJ Clayborne, State Legislative Analyst  
United Food and Commercial Workers International Union**

**before the**

**MD Senate Finance Committee  
March 9<sup>th</sup>, 2023**

**regarding**

**SB 0516 An Act Concerning Cannabis Reform**

Good afternoon, Chair Griffith, and Vice Chair Klausmeier and members of Senate Finance Committee. I am here today on behalf of the United Food and Commercial Workers International Union (UFCW), UFCW Local 27 and UFCW Local 400. UFCW 27 is headquartered in Baltimore and represents over 10,000 members in Maryland who work in retail food, food service, food processing and healthcare. UFCW Local 400 is headquartered in Landover and has contracts in various industries representing 10,000 members in Maryland. Thank you for the opportunity to speak with you this evening about an issue important to Maryland's working families.

Nationally, UFCW represents over 1.3 million hard-working men and women who work in highly regulated industries including the emerging legal cannabis industry. Our cannabis members can be found across multiple states in growing and cultivating facilities, manufacturing and processing facilities, and in laboratories and dispensaries. Wherever cannabis is legalized, the UFCW is committed to building family sustaining jobs and a strong, diverse and skilled workforce.

**UFCW supports the legalization of recreational cannabis in Maryland with the addition of labor peace agreements as a condition of cannabis licensure and renewal and with the addition of a workforce development program.** Labor peace agreements protect businesses, workers and consumers, and are an effective regulatory tool for the state. And a robust workforce development program for cannabis workers will ensure that jobs go to the communities most affected by the War on Drugs.

A labor peace agreement is an agreement between an employer and a bona fide labor organization in which the parties agree to maintain labor peace. Such agreements protect the government's interests by prohibiting labor organizations and their members from engaging in strikes, boycotts, picketing and any other interference with the employer's business. In return, the employer agrees not to interfere with efforts by the labor union to communicate with, and attempt to organize and represent, the employer's workers. At its

core, these negotiated labor peace agreements create an orderly and fair process for workers to decide whether they want or don't want representation.

Labor peace agreements can help address the existing disparities in the cannabis market by providing equal opportunities for women, people of color, LGBTQ individuals, veterans, and people with disabilities to own businesses or work within the industry. **Access to representation helps ensure that a broad range of workers can benefit from the fledgling industry, especially workers from communities that have been disproportionately impacted by cannabis prohibition in the past.**

For too long, communities of color have suffered as a result of top-down policy making that is disconnected from lived experiences. This is especially true for communities that have experienced extreme sentencing and racial profiling as a result of the criminalization of cannabis. To truly end cannabis prohibition, Maryland must take steps to redress the harms of decades of over-policing, criminalization, and incarceration of people of color that resulted from cannabis criminalization. The political will and financial resources mobilized in the War on Drugs to put people in jail must be matched with equal resources to create an equitable new industry.<sup>i</sup> To fulfill the promise of this industry for impacted communities and to lead nationally in a just transition, Maryland leaders should consider how cannabis jobs can improve the lives of the families who were impacted by a failed and brutal cannabis prohibition. The political will to end cannabis prohibition must include taking the questions of race, equity, harm, and redress seriously.

Unions and front-line cannabis workers can be important partners in equitable hiring and worker organizations can be important institutions for establishing hiring centers and workforce development programs that ensure diverse, skilled, and long-tenured workforces. But first we must decouple the new industry from an unjust criminal justice system and ensure that workers can organize without interference.

It is no surprise that multiple other states have chosen to include labor peace requirements for cannabis licensure. California, Connecticut, Rhode Island, New Jersey, and New York all require cannabis operators to sign agreements requiring labor peace. Each of these states faced similar questions and arguments about labor peace and each of these states, their legislature and legislative counsel agreed that labor peace requirements in cannabis were good and consistent with state and federal law.

A study of a labor peace requirement, and other employment requirements, at San Francisco Airport, concluded that the requirements “dramatically reduced turnover, improved worker morale and [resulted in] greater work effort.”<sup>ii</sup> Unions in general enhance worker's job satisfaction and consequently employees are more willing to work harder leading to higher productivity and quality of output.<sup>iii</sup> A workforce comprised of union members is characterized by reduced turnover, which in turn saves the business money in the long term with less spending on frequent training and induction of new employees.<sup>iv</sup> That is why localities require labor peace in other industries.<sup>v</sup> Indeed, when gaming was legalized in Maryland, Labor Peace requirements were included to ensure that Maryland working families had a fair opportunity to work lasting, lucrative jobs in the new industry.

Another major barrier to ensuring equitable outcomes in the cannabis market is a skilled workforce. In some cannabis job categories like cultivation, people with the knowledge from the underground economy are reluctant to enter formal jobs. In cannabis retail jobs, turnover is high due to a lack of translatability between traditional fashion or food sales. In addition, States are establishing in-depth safety and production regulations that are much-needed but new to the industry – which require even further training.

A cannabis training program can be constructed to answer to employer, state and community demands – while helping ensure that the benefits of the green rush spread widely. They can act as a pillar to an industry to hold up the structures that guarantee a diverse workforce and a pathway to the middle class for a wide range of workers. UFCW supports a recreational cannabis industry in Maryland that will create sustainable jobs for families for the foreseeable future. Our experience is that labor peace agreements and workforce development are an effective way to achieve that. Labor peace agreements will reward responsible businesses and ensure that Maryland’s cannabis industry is driven by companies committed to making long-term investments in local communities.

The nascent Maryland cannabis industry presents an unparalleled opportunity to build a new kind of industry for Maryland, one that redresses historical and continuing harms and gives workers an opportunity to exercise workplace democracy to improve both the industry and Maryland communities. Policymakers must embrace principles of equity and workplace democracy from recruitment to career advancement in order to build a shared culture of equality. Two strong mechanisms to do so are workforce development programs and labor peace agreements as a condition of licensure.

Thank you for the opportunity to comment.

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<sup>i</sup> “Since 1971, the war on drugs has cost the United States an estimated \$1 trillion. In 2015, the federal government spent an estimated \$9.2 million every day to incarcerate people charged with drug-related offenses—that’s more than \$3.3 billion annually.” Center for American Progress, “Ending the War on Drugs: By the Numbers,” June 27, 2018. <https://www.americanprogress.org/issues/criminal-justice/reports/2018/06/27/452819/ending-war-drugs-numbers/> Furthermore, “Black people are approximately four times more likely to be arrested for marijuana possession than are white people—a disparity that increased 32.7 percent between 2001 and 2010—with far more severe penalties.” Altaf Rahamatulla, “The War on Drugs has Failed. What Next?” Ford Foundation Equal Changes Blog, March 23, 2017, <https://www.fordfoundation.org/ideas/equal-change-blog/posts/the-war-on-drugs-has-failed-what-s-next/>

<sup>ii</sup> <https://irle.berkeley.edu/files/2003/Living-Wage-Policies-at-San-Francisco-Airport.pdf>

<sup>iii</sup> Christos Doucouliagos and Patrice Laroche, “What do union do to productivity? A meta-analysis,” *Industrial Relations*, 42:4 (2003)

<sup>iv</sup> Paula B. Voos, “How Unions Can Help Restore the Middle Class,” Testimony given to the Senate Committee on Health, Education, Labor and Pensions, March 10, 2009. Transcript available at:

[https://www.epi.org/publication/how\\_unions\\_can\\_help\\_restore\\_the\\_middle\\_class/](https://www.epi.org/publication/how_unions_can_help_restore_the_middle_class/)

<sup>v</sup> [https://www1.nyc.gov/assets/home/downloads/pdf/executive-orders/2016/eo\\_19.pdf](https://www1.nyc.gov/assets/home/downloads/pdf/executive-orders/2016/eo_19.pdf)

# **Testimony SB0516.pdf**

Uploaded by: Anna Chaney

Position: FWA





Chair Melony Griffith

Vice Chair Katherine Klausmeier

Senate Finance

Miller Senate Office Building

Annapolis, MD 21401

**Position: Favorable with Amendments**

Dear Chair Griffith, Vice Chair Klausmeier and Committee Members:

My name is Anna Chaney. I am the founder, owner, and operator of Honey's Harvest Farm, a woman-owned and family run, regenerative agriculture farm where we cultivate hemp and a variety of herbs, vegetables, nuts, and berries. We are in Southern Anne Arundel County and offer a variety of artisanal full-spectrum CBD tinctures, bath salts, and salves designed to provide our customers a natural, plant-based solution to support their health and wellness.

In launching this business, I was fully cognizant of the differences between hemp and marijuana, and I specifically set out to create a business that could succeed within both the letter and intent of the law: healthy, natural, plant-based, *non-intoxicating* products that are as close to the natural plant as possible. This year, we will be growing hemp again as field hemp only to remediate our previously conventionally cultivated fields for aeration by the hemp roots and a very small boutique crop of compliant hemp plants as well.

As written, SB 516 - Cannabis Reform would effectively kill my business in the state of Maryland. The provisions introducing a limit on the sale of any consumable product with more than .5mg of delta-9 THC per serving and 2.5 delta-9 THC per package without an adult-use cannabis license are an arbitrary designation that would eliminate the non-intoxicating full and broad-spectrum hemp product industry, like my products. If these provisions stand, my non-intoxicating products would be illegal in the State of Maryland, and I would immediately pivot my business to take all extraction, product development, formulation, manufacture, and sale out of the state.

Honey's Harvest Farm does not, has not, and will not participate in the Delta-8 and other loophole intoxicant market. My kids and I knew this was an evolving industry when we launched, and I developed my business plan to be able to weather the market, and not have to rely on loopholes in order to survive. I strongly believe that all intoxicating products should be regulated under the jurisdiction of the MMCC (now ATCC). What constitutes an intoxicating product is the distinction that requires clarity for efficient and effective regulation.

When the 2018 Farm bill was passed paving the way for a federally defined and legal hemp market, it contemplated a market that includes full spectrum cannabinoid products. I respectfully urge this committee not to take action that kills the legal hemp industry in Maryland before it has the chance to develop as it has in other states. There is room for both the marijuana and hemp industries to coexist and thrive. Other states are leading the way and can provide examples of how to achieve this.

Specifically, Colorado is at the forefront of states where both the medical and adult-use marijuana industries and the hemp industries coexist and thrive. As a result, they are also at the forefront of policy initiatives to address the question of how and where to regulate intoxicating components of marijuana vs. hemp. I would urge the legislators to look to Colorado's leadership as the gold standard for producing a legal and regulatory framework to accommodate both a healthy and thriving marijuana industry and hemp industry in Maryland. Specifically, I would support a standard that utilizes a CBD to THC ratio as an indicator on whether or not the product is intoxicating, as Colorado has proposed.

Similarly, Vermont has adopted this approach. In tackling developing their regulatory framework, Colorado set up a Task Force that included all stakeholders to determine an appropriate standard between intoxicating and non-intoxicating hemp products. Based on their findings, they established a 15:1 CBD to THC ratio or higher. Vermont chose a 20:1 CBD to THC ratio as their standard, which was adopted by their legislature. Hemp products complying with the aforementioned ratios are registered as "hemp manufactured products" and products that do NOT comply are registered as adult-use products.

Colorado and Vermont have created clear, streamlined, effective testing requirements and processes to regulate hemp and adult use products in alignment with the federal law, from plant to product.

Therefore, it is my recommendation that this committee amend the bill before it today to adopt a similar regime for determining whether a hemp-derived product should be regulated as a hemp manufactured product or as an adult use product. By following the guidelines set in Colorado, Maryland will be able to ensure that non-intoxicating hemp products will still be available to licensed hemp farmers and producers.

I look forward to working with the committee and the bill sponsors to craft language that would allow Maryland hemp farmers to continue to keep their farms, grow hemp and sell hemp as a non-intoxicating therapeutic, and continue to benefit the Maryland economy.

Respectfully,  
Anna Chaney  
Certified Functional Nutrition Counselor  
Honey's Harvest Farm  
Lothian, MD 20711

LINKS: Colorado Legislation: [https://leg.colorado.gov/sites/default/files/2022a\\_205\\_signed.pdf](https://leg.colorado.gov/sites/default/files/2022a_205_signed.pdf)  
Vermont Regulations: <https://ccb.vermont.gov/hemp>

# **Cannabis Reform SB 516-Clownflower Conspiracy.pdf**

Uploaded by: Anthony Buckler

Position: FWA

Anthony Buckler  
*Cannabis Parthenogenesis And The Means To Induce*  
USPTO #63/337,754  
35 U.S.C. 184  
Maryland Department of Agriculture  
Industrial Hemp Research License #24-127

I would like to offer my support for Senate Bill 516 to be passed with an amendment. To adequately validate my request I need to share my personal medical cannabis cultivation experience and some of my research.

I began researching cannabis over a decade ago. When I started cannabis cultivation research my approach was basic and according to known science. I began with feminized cannabis seeds to establish mother plants. These mothers were kept in a vegetative state for nearly six (6) years and had clones clipped periodically to create new plants. The clones then matured beside the mother plants until ready to be flowered. Doing this allows for the mother plant's potency to increase and thereby increases the potency of the clones over time. This increase in potency over time allowed me to cut back overall cannabis flower production because I required less cannabis flower to meet my medical needs.

When a clone is ready for flowering, it is moved away from the mother to a different light source, photoperiod, and provided a different nutrient schedule. It is in the flowering stage of medical cannabis production that a cannabis plant starts producing its resin. If unpollinated, a cannabis plant will freely flow its resin until harvest. Medical cannabis is usually cultivated in this manner of development because it yields the most medicine, or resin, per weight. Once I achieved this standard, I began to work on a formula to increase the resin flow of my plants. It took me four (4) years of complex biochemistry to accomplish this.

After years of cultivating medical cannabis and experimenting with various bioengineering methods involving light, I discovered a new form of cannabis that does not correspond to known cannabis physiology. This new cannabis plant, *Cannabis Parthenogenesis*, is distinctly different from all known forms of cannabis because it is asexual. This plant does not need to be pollinated; in fact, current research suggests parthenogenetic cannabis is incapable of pollination. Current theories support the production of seeds at the beginning of the flowering stage, rather than after fertilization. This distinct reproductive characteristic alone classifies parthenogenetic cannabis as an invasive plant species.

SB 516 FWA

After securing a plant utility patent from the United States Patent and Trademark Office for *Cannabis Parthenogenesis And The Means To Induce*, I conducted a cannabis growth experiment with Frostburg State University's David Puthoff Ph.D, with licensing provided by the Maryland Department of Agriculture. The purpose of the experiment was to document the mutagen effect of light-emitting diode growth lights. With strict time constraints, I was able to provide three (3) feminized hemp control samples and three (3) mutated hemp samples at two (2), four (4), and six (6) weeks post-flowering and included a normal and mutated version for each week. After testing was completed all samples were delivered to Frostburg for examination. All control cannabis samples developed normally and were unremarkable. The mutated samples all appeared to be normal from a distance. All mutated samples had a seed at every calyx within the flower. Because there was no pollen present, seed production in my plants was triggered by the mutative effect of LED lighting.

Parthenogenetic cannabis is not a medical purpose cannabis plant. Its purpose is to produce seeds and because of this, it is an industrial purpose plant. Even if conventional cannabis cultivation methods were used to cultivate parthenogenetic cannabis, it will still produce seeds. The act of seeding is contradictory to producing resin from cannabis. With light emitting diode (LED) growth systems inducing the parthenogenetic mutation to cannabis, these systems are sub-standard to effectively produce medicine from a cannabis plant. It is my research and grant for *Cannabis Parthenogenesis And The Means To Induce*, along with the discovery of parthenogenetic cannabis that compels me to respectfully request a ban on the sale of parthenogenetic cannabis flower. This will eliminate all cannabis flower advertising from being misleading and further protect consumers and eliminate the current professional liability.

### **Title 13**

Currently all LED cannabis cultivators are misleading Maryland's medical cannabis consumers. All cannabis flowers should be sensimilla, particularly in medical markets. Light emitting diode (LED) growth systems are incapable of producing sensimilla. The product of LED cannabis cultivation is parthenogenetic cannabis. Any LED cannabis cultivator advertising "medical cannabis flower" or even "cannabis flower" are deceiving their business customers and cannabis patients. The deception is directly related to the forced seeding of the cannabis flower by a manufacturing defect induced from LED systems. Additionally, with the seeding process in contradiction to resin production, it is my belief that this "watering down" is done intentionally, just to sell more cannabis flowers while saving on energy costs. With inadequate resin production medical cannabis patients are forced to buy more substandard medical cannabis flower and this only increases the cultivator's profits and industry statistics. Unless LED

cannabis cultivators advertise their cannabis flower products as “seeded by defect” they are willfully deceiving their customers. The defect caused by LED lighting can only be fixed by removing the lighting. With cannabis cultivators unwillingness to make this change, I feel it is necessary to ban the use of light emitting diode (LED) growth systems for commercial cannabis cultivation to protect cannabis consumers from misleading advertising and defective products.

### **Sensimilla Abstract**

The cannabis plant existed naturally prior to the modern feminizing of medical grade cannabis. When produced via indoor cultivation methods, the entire purpose of feminizing cannabis is to produce unpollinated female cannabis flowers to ensure the cannabis plant freely flows its resin. The resin is where the vast majority of the cannabinoids, or medicine, is contained. The importance of producing unpollinated female cannabis flowers is determined by the cannabis plant's physiology. With optimal lighting, nutrients, and atmospheric conditions, combined with the lack of pollination encourages the cannabis plant to produce and excrete its resin unadulterated. It is precisely when a cannabis plant is pollinated that it begins to stop its resin flow. Its resin, though it may be a medicine for us, is used by the cannabis plant to entice pollination, and when it's pollinated it no longer needs to entice pollination. This is why it is imperative that all “medical cannabis” must be, or at least have the opportunity to be, unpollinated feminized cannabis, and this is known as sensimilla. When making determinations for the cultivation of cannabis, all current science available should be used to produce sensimilla.

### **Medical Cannabis Abstract**

The term “medical cannabis” and “medical marijuana” existed long before any codifying of law. They were around before industry began and the words actually had meaning. Medical cannabis means sensimilla, and sensimilla is a latin word meaning “without seed.” Cannabis plants are highly photo-sensitive. This means the plant's entire life cycle must be controlled with light to efficiently and effectively produce medicine. When done properly you will have a vegetative photo-period and a flower photo-period, each being different in duration, intensity, and color of lighting. Working like this allows you to keep a mother plant theoretically indefinitely. This allows you to increase plant potency over time and gives you a source for clones. Clones can be developed directly beside the mother until ready to flower. Establishing a mother plant and taking clones allows for a few things. First, you now have a reliable source of female cannabis plants and no seeds are required to be germinated. Second, potency goes up the

longer the mother is in the vegetative state. Third, if there are any abnormalities it is easy to spot. Training yourself to cultivate in this manner will make it really easy to identify when something is wrong, and with cannabis something wrong can turn catastrophic quickly. When the female clone has matured and is ready for flowering they are moved away from the mother. They are provided with a different color of light, as well as duration of light and nutrients. When a cannabis plant is flowering in this manner and no male plants are present, and no pollination occurs, it is now in prime condition to provide our medicine, in the form of its resin. In nature, the resin is what the plant uses to entice pollination. If unpollinated, a cannabis plant will freely flow its resin until harvest. If pollinated, it begins to shut down resin flow because it no longer needs to be pollinated. This is when the plant begins to put its energy into seed production and inhibits our medicine. It is particularly this reason why it is imperative for “medical cannabis” to be cultivated to the standard of sensimilla.

### **Cannabis Parthenogenesis Morphology**

Induced Cannabis Parthenogenesis presents as a mimic to normal feminized cannabis and to the untrained eye. Under continued exposure to a mutagen light source in the vegetative state a cannabis plant will eventually produce a single pistil at the solitary flower on the main stem. The solitary flower is simply an indicator of plant sex and normally shows two (2) pistils on feminized cannabis plants. When a mother cannabis plant is left to grow under LED lighting and clones are taken for flower, eventually every clone will have only one (1) pistil at the solitary flower. Under normal conditions with feminized cannabis plants, the appearance of a single pistil clearly indicates that the other pistil has been pollinated and has started to become a seed. With parthenogenetic cannabis this is not true. Parthenogenetic cannabis only produces a single pistil after the mutation has taken hold. The plant will produce seeds regardless, it needs no pollination. It is the programming of the cannabis plant to be parthenogenetic that drives my belief that the parthenogenetic cannabis flower should not be sold to the public. However, providing a nutrient schedule to increase resin flow may be beneficial and allow for the harvesting of the resin. Farmed in a responsible way and harvested for its resin only is the only way to avoid any potentially deceptive business practice. Parthenogenetic cannabis, being newly discovered, is different from what’s known as “marijuana” or “hemp”, and production methods should reflect that.

Our medical cannabis industry has been built on a foundation of negligence, deception, and fraud. The negligence is the decision by cannabis cultivators to use low intensity laser arrays, AKA LED, for cannabis cultivation, and the Maryland Medical Cannabis Commission for refusing to regulate defective parthenogenetic cannabis flowers. The deception is in the form of advertising in the industry and its omission of facts regarding the defect of parthenogenetic cannabis flower quality, and this is clearly a Title 13 violation. The fraud occurs when a medical cannabis consumer attempts to purchase medical cannabis flower, and is sold parthenogenetic cannabis flower with a receipt. The industry I asked for is nothing more than a modern day cannabis injustice, and is designed to exploit cannabis consumers with defective flower products from a defiled plant.

Starting with the original deception, all laser grown cannabis is a parthenogenetic version of its former self. Once the defect is induced, every business that touches the defective flower is now contributing to the deception. This includes testing, processing, branding, advertising, transportation, and all the way down stream to the consumer. Like this, the growers have now implicated every business licensed under the Commission in their scheme to deceive Maryland's medical cannabis consumers. The collaborating businesses don't need to know of the original deception to actively participate in their scheme. However, there are those who certainly know of the parthenogenetic defect, and they have used less than honorable means to conceal it.

I have made every attempt possible to notify those in charge of the deceptive business practice as I see it. They don't want to fix it. They want to keep it quiet, hide it, and at all costs. All the problems of our cannabis industry are squarely on the shoulders of the reckless and negligent LED cannabis growers and our current Commission. Their deception has infected our industry. Only after the proper accountability and regulation should we allow LED cannabis cultivators into the new recreational cannabis market. They had a chance to regulate themselves, and they have demonstrated the inability to do so. As the grantee for parthenogenetic cannabis, and in the interest of eliminating the deception in our cannabis industry, please ban the use of parthenogenetic cannabis within any cannabis industry regulated by Maryland.



# **Senate Bill 0516\_Favorable with Amendments\_TBTC LL**

Uploaded by: Anthony Capotosti

Position: FWA

Dear Honorable Members of the Maryland Senate,

My name is Anthony Capotosti. I am the owner and CEO The Bean Team Company LLC. We are Maryland-based hemp business that has multiple brick and mortar retail stores across Baltimore MD. I am writing to express my strong opposition to **section 36–1103** of the proposed bill 0516, Cannabis Reform Act, which would limit the overall THC content of products for human consumption or inhalation to no more than 0.5 milligrams of THC per serving, or 2.5 milligrams of THC per package.

My business partner and I opened our first CBD store in 2018 after experiencing the benefits these products had firsthand. My partner (Darrien Wilson) struggled for years with extreme separation anxiety to the point that I had to attend her college classes with her. The first few years we were together was difficult for both of us and we spent countless hours with specialists at John Hopkins and other university's trying to find a medication regimen that would work for Darrien. Unfortunately, we were unable to find something that was beneficial for her and eventually gave up.

That was until we found CBD. Darrien experienced so much relief through CBD products, and they had such a huge impact on her life so much so that she wanted to share these products with others. That's how our business was born.

We were both young (24 – 21) we took a break from college to pursue opening our business and like most new endeavors we went through many hurdles to be where we are today. Our first year in business we slept above our shop on a \$20.00 air mattress that we bought from Walmart and used a Styrofoam cooler as a makeshift AC unit. It was rough but every morning I would be reassured by Darrien that we were not in this business to make money. We were in this business to change people's lives for the better. Quality, education, and community are the Pillars of our business, and we take great pride in the products that we offer to our clients. We believe that our customers deserve the highest quality CBD products and education that is available on the market. And we strive each and every day to be the go-to store for products that are formulated to meet their individual needs, and we are committed to providing them with the best possible experience and safe/quality products.

Losing our business would not only impact my family and myself. It would drastically affect our community, our newest store Green Roots (Which cost us upwards of \$100,000 to open 6 months ago) is located in historic Dundalk (An area greatly affected by drugs and the war on cannabis) Our store provides this community with High quality, 3<sup>rd</sup> party lab tested products and we have become a staple in our area. We serve customers from all ages and walks of life. Many of our clients rely on these products to help with conditions like arthritis, Fibromyalgia, And chronic pain. Removing these products from them will do a drastic disservice to the individuals that you claim to represent.

Across all our locations we employ several individuals who rely on us for their livelihoods and for their family's lives. If we are forced to close it will have a huge impact on these individuals. I implore you to think of them as you make a decision that will change the course of their lives.

We believe in stricter regulation We have participated in, and are in full support of Bill HB-1207, which we believe clearly addresses all your potential concerns related to Delta8 and the limit of all THC content in Hemp based products. We are part of the group of good guys that are taking leaps and bounds to do this right, operate compliantly, and separate ourselves from all the bad actors in the industry.

In conclusion, I urge you to consider the negative impact that this bill would have on our business and on our customers. We are committed to providing safe, effective, and high-quality CBD and Hemp products to our customers, and we believe that we have a valuable role to play in the Maryland hemp industry. I respectfully ask that you vote in favor of this bill, with amendments to section 36-1103, that support our industry and our customer's best interest.

Thank you for your careful consideration.

Sincerely,

Anthony Capotosti – Darrien Willson  
Co-Founders of The Bean Team Company LLC

**sb516 Written Testimony, Anthony Mark Marchione.pdf**

Uploaded by: Anthony Marchione

Position: FWA

## **sb516 Favorable with amendments**

**Request an amendment to limit THC to a maximum of 15% for adult use recreational cannabis**

**“THE CANNABIS OVERSIGHT AGENCY SHALL, BY REGULATION, PROHIBIT ANY CANNABIS OR CANNABIS PRODUCT SOLD THROUGH THE STATE’S ADULT-USE CANNABIS PROGRAM FROM CONTAINING A DELTA-9-TETRAHYDROCANNABINOL CONCENTRATION GREATER THAN 15%.”**

Mark Marchione  
[amarchione@me.com](mailto:amarchione@me.com)  
(443) 625-8718

My name is Mark Marchione. I served in the US Navy and was an international commercial airline pilot until I retired.

I would like to ask for an amendment to limit all adult use recreational cannabis to a maximum of 15% THC.

I have a son who has cannabis induced schizophrenia. He will never get better. We have no family history of schizophrenia. It was caused by frequently smoking high THC cannabis at a young age while his brain was still developing. He was diagnosed by a Maryland state psychiatrist who told me, “Most people don’t know this, but marijuana can cause schizophrenia.” Many other psychiatrists told me the same thing. I didn’t know. I thought it was “just weed”. I know now. You know now.

While the voters have decided to legalize adult use marijuana I’m sure most of them didn’t know that what we have today is not the marijuana from the 1970’s with 1% THC. Now we have marijuana with over 27% THC and cannabis products with over 90% THC. Using it prunes synapses as the brain is developing. Using THC under the age of 25 increases the chance of developing permanent schizophrenia by 500%. And it causes more than psychosis. There is depression. There are suicides. There is violence.

The cannabis industry offers snake oil claims and cure alls. “It’s ‘healthy’, ‘organic’, ‘safe’.” They said the same thing about cigarettes 70 years ago. Cigarettes might kill you when you’re 50-years-old ... but they don’t cause you to try and jump off the roof of a six story building and send you to a psychiatric hospital for a year when you’re 24-years-old.

Allowing high THC products that are 90% pure like Shatter or cannabis oils would be disastrous. High potency THC is a drug. If we don’t properly regulate cannabis we will have the same problems as Colorado, California and Washington state.

You all have sons and daughters, grandchildren, and nieces and nephews. Think of them.

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Supporting references:

The cannabis industry would have you believe that THC does not cause psychosis. There are however thousands of studies that prove that it does.

Here are a few studies to show that it does:

One of the more well known studies looked at a cohort of 45,570 Swedish conscripts over 15 years. The rate of schizophrenia increased by 6.0 times for those young recruits who used cannabis frequently.

<https://pubmed.ncbi.nlm.nih.gov/2892048/>

Numerous other follow up studies determined that it was not other drugs or socioeconomic factors that drove the increase. Cannabis was the cause of an increase in schizophrenia.

Another study indicates a 55% increase in psychosis in Pacific coast states that have legalized marijuana.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8833839/pdf/nihms-1770358.pdf>



This study shows that there was a positive association between the number of cannabis dispensaries and rates of psychosis ED visits across all counties in Colorado.

<https://www.sciencedirect.com/science/article/abs/pii/S0955395922001049>

To support that marijuana has now been bred to have over 27% THC:

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0192247> a strain was tested that was 27.1% THC - see Table 3, p. 10 - "Durban Poison"

A must read that explains the dangers of high THC:

**The Problem with the Current High Potency THC Marijuana from the Perspective of an Addiction Psychiatrist**

Elizabeth Stuyt, MD

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6312155/>

Advocates for the legalization of medical and retail marijuana are quick to point out all the possible benefits that a community might see from such a venture. These include increased jobs, increased tax revenue, possible medical benefits and they advertise it as “safe” and “healthy” and “organic.” They utilize the words “cannabis” and “marijuana” for everything without differentiating between the different forms of cannabis that can have very different effects on the mind and body.

Many people who have voted for legalization thought they were talking about the marijuana of the 1960s to 1980s when the THC content was less than 2%. However, without any clear guidelines or regulations from government officials, the cannabis industry has taken a page from the tobacco and alcohol industries’ play book and developed strains of marijuana and concentrated marijuana products with much higher concentrations of THC, the psychoactive component that causes addiction. The more potent a drug is, the stronger the possibility of addiction and the more likely the person will continue to purchase and use the product.

The active component in marijuana that people find so desirable was not really known until the 1960s when a research team in Israel found that after injecting THC into aggressive rhesus monkeys, they became calm and sedate.<sup>1</sup> This team discovered that there was a receptor in the brain that fit THC like a glove so they named these receptors cannabinoid receptors. It was not until the 1990s that this same team discovered why we have these receptors in our brain.<sup>1</sup> They discovered compounds produced by our bodies that fit into these receptors which they named anandamides, a Sanskrit word for “supreme joy.” These receptors are found all over the brain and are still called endocannabinoid receptors but that is not because they are meant for people to take in THC.

The primary problem with the current available cannabis in dispensaries in Colorado is that the THC content is not like it used to be. Prior to the 1990s it was less than 2%. In the 1990s it grew to 4%, and between 1995 and 2015 there has been a 212% increase in THC content in the marijuana flower. In 2017 the most popular strains found in dispensaries in Colorado had a range of THC content from 17–28% such as found in the popular strain named “Girl Scout Cookie.”<sup>2</sup> Sadly these plants producing high levels of THC are incapable of producing much CBD, the protective component of the plant so these strains have minimal CBD. For example the Girl Scout Cookie strain has only 0.09–0.2% CBD.

The flower or leaves that are generally smoked or vaped are only one formulation. We now have concentrated THC

products such as oil, shatter, dab, and edibles that have been able to get the THC concentration upwards of 95%. There is absolutely no research that indicates this level of THC is beneficial for any medical condition. The purpose of these products is to produce a high, and the increased potency makes them potentially more dangerous and more likely to result in addiction.

Because there was initially no regulation on the edibles they have been made to look very similar to regular products that people consume such as chocolates, gummy bears, PopTarts etc. As a result there has been a significant increase in the accidental exposure/overdoses of children younger than nine in Colorado compared with the US at large.<sup>3</sup> New regulations beginning in 2019 require that all cannabis packaging in the state of Colorado must have a universal “THC” symbol on the label with the written warning “Contains Marijuana. Keep away from Children.” All marijuana-infused products must have the universal symbol marked on at least one side of the “Standard Serving of Marijuana.”

According to the 2014 Monitoring the Future Study, marijuana is by far the number one drug abused by eighth and twelfth graders.<sup>4</sup> Since legalization in Colorado, marijuana use in adolescents and those 18–25 has steadily climbed, well outpacing the national average. Colorado leads the nation in first time marijuana use by those aged 12–17, representing a 65% increase in adolescent use since legalization.<sup>5</sup> According to the Colorado Department of Public Health and Environment in 2015 the county of Pueblo, Colorado, has the

highest prevalence of reported past month marijuana use by high school students at 30.1%.<sup>6</sup> It is well documented that when drugs are perceived as harmful, drug use decreases as we have seen with adolescent use of tobacco.<sup>7</sup> There is significantly less perception of harm by marijuana primarily because Colorado has normalized it as a society and allowed the perception that it is “organic” and “healthy” and that there is nothing wrong with it.

However, there are significant consequences of long-term or heavy marijuana use beginning in adolescence. Adolescence is a time of significant brain development. Normally during this period there is a significant increase in dopaminergic and glutamatergic stimulatory neurotransmitters and a decrease in serotonergic and GABAergic suppressive neurotransmitters located in the pre-frontal motor cortex – the last part of the brain to fully develop.<sup>8</sup> The prefrontal motor cortex or the “seat of judgement” is the last to fully develop and can take up to 25 – 30 years to fully develop. This equates to a great deal of learning, exploring and doing during this period, similar to stepping on the gas pedal and problems with impulse control and judgement, similar to problems stepping on the brake.

The reasons why adolescents are at such great risk for developing an addiction to drugs or alcohol is because this is a period with increased neurobiological based tendencies for risk taking with decreased suppressive and regulatory control, and this is a period of decreased parental monitoring and increase in peer affiliations, a “perfect storm.”

The marijuana of old used to be classified as a hallucinogen and was thought to not cause addiction because there was no identified withdrawal syndrome. This has changed and with the increased potency of THC there is a definite recognized withdrawal syndrome which includes increased anger, irritability, depression, restlessness, headache, loss of appetite, insomnia and severe cravings for marijuana.<sup>9</sup> It has been reported that 9% of those who experiment with marijuana will become addicted; 17% of those who start using marijuana as teenagers will become addicted; and 25–50% of those who use daily will become addicted.<sup>10</sup> A 2015 study carried out in the UK found that high-potency cannabis use is associated with increased severity of dependence, especially in young people.<sup>11</sup>

Addiction is a problem with the learning and memory part of the brain and all drugs of abuse work in the same “reward pathway” where we learn to do anything such as eat and procreate. All drugs of abuse cause a release of dopamine from the nucleus accumbens that signifies salience and starts the process of long term potentiation which reinforces the learning. At the same time, the hippocampus which is vitally important for new memory and learning is negatively impacted by the chronic use of any addictive substance. These substances decrease neurogenesis in the hippocampus and actually cause shrinkage of the hippocampus and impair the ability to learn new things. This is true for alcohol, cocaine, methamphetamine, heroin, nicotine, and THC.<sup>12</sup> Animal studies have demonstrated impaired learning with all of these

substances but the good news is that recovery is possible. When the use of addictive drugs is stopped and the animals are allowed to be in a recovery environment where they are free to exercise (voluntary exercise being one thing that improves neurogenesis) they can again learn new things.<sup>13</sup>

Human studies have shown that long-term (>10 years) and heavy (>5 joints per day) cannabis use compared with age matched non-using controls resulted in bilaterally reduced hippocampal and amygdala volumes ( $p=.001$ ) and significantly worse performance on measures of verbal learning ( $p<.001$ ).<sup>14</sup> There is evidence that recovery is possible in humans as well. A study of 40 male and 34 female long-term (@15 years) cannabis users versus 37 non-users, healthy controls divided the marijuana users into three groups; those that smoked predominantly THC in the previous three months, those who smoked a combination of THC and CBD in the previous three months and former users with a sustained abstinence of 29 months.<sup>15</sup> They found that cannabis users had smaller hippocampal volumes compared to controls but the users not exposed to CBD had an even greater (11%) reduced volumes (CBD appears to be somewhat protective). In the former users the hippocampal integrity was comparable to controls. The only problem with this study is they did not test for functional deficits to see if function improved along with hippocampal volume.

There are other important neurotransmitters that are very active during adolescence and include acetylcholine receptors (ACH) and endocannabinergic receptors (CB1). ACH helps us

focus and concentrate and ACH innervation of the pre-frontal motor cortex reaches mature levels during adolescence.<sup>16</sup> These receptors in the brain are called nicotinic or nAChRs to differentiate them from the muscarinic receptors in the body. They are called nicotinic simply because nicotine binds to these receptors – not because we are supposed to use tobacco products. These receptors are involved in promoting or preventing neuronal cell death depending on the stage of brain development. Putting an exogenous form of nicotine in the developing brain, as in consuming tobacco, can dysregulate these fine tuning mechanisms during adolescence.

CB1 receptors regulate the balance between excitatory and inhibitory neuronal activity utilizing our own natural anandamides. Exposure to cannabis during adolescence disrupts glutamate which plays an important role in synaptic pruning in the pre-frontal motor cortex; disrupting normal brain development.<sup>17</sup> This is most likely why there are many studies demonstrating the negative effect on cognition and IQ in people who are exposed to marijuana beginning in utero through adolescence. In spite of this, nearly 70% of dispensaries in Denver, Colorado, recommend cannabis products to treat nausea in the first trimester of pregnancy.<sup>18</sup> This is basically bud-tenders practicing medicine without a license.

A study in New Zealand with a 20-year follow-up showed an average loss of 8 IQ points with early persistent teen use of marijuana.<sup>19</sup> If you already have a high IQ, a drop in 8 points may mean the difference between making As and making Bs,



however for the person with an average IQ of 100 (50<sup>th</sup> percentile), a loss of 8 points can put that person in the 29<sup>th</sup> percentile with significant difficulty in functioning. A study out of Yale University tracked 1,142 students who achieved similar SAT scores and were enrolled in college.<sup>20</sup> They found that those who used minimal alcohol or cannabis had an average GPA of 3.1 at the end of the semester. Those who drank alcohol without using marijuana had an average GPA of 3.03 and those who used both alcohol and marijuana had an average GPA of 2.66.

Marijuana use is also correlated with creating or worsening many mental health problems including anxiety, depression, psychosis, and suicidal ideation. A prospective study in Australia followed 1,600 girls for seven years starting before they expressed symptoms of mental illness or substance abuse.<sup>21</sup> They found that girls who used marijuana at least once a week were twice as likely to develop depression than those who did not use, and those who used marijuana every day were five times more likely to suffer from depression and anxiety than non-users. A study of 307 adults with depression assessed symptoms, functioning and marijuana use at baseline, and three- and six-month intervals.<sup>22</sup> Researchers found that marijuana use was associated with poor recovery. Those aged 50+ increased their marijuana use compared to the youngest age group ( $p < .001$ ) and the marijuana use worsened depression ( $p < .001$ ) and anxiety ( $p = .025$ ) symptoms. Marijuana use led to poorer mental health functioning compared to those who did not use marijuana ( $p = .01$ ).

Numerous studies have demonstrated that using cannabis prior to the age of 15–18 significantly increases the risk of developing psychotic symptoms.<sup>23</sup> The risk is dose dependent and increases with greater frequency of use and with higher potency THC. A landmark study out of the UK analyzed 780 adults, ages 18–65, 410 with their first psychotic episode versus 370 matched healthy controls.<sup>24</sup> They found that use of high potency THC >15% resulted in a three times increased risk of psychosis, and if the use was daily there was a five times increased risk. Those using hash with <5% THC did not exhibit psychotic symptoms.

A growing number of states have identified PTSD as an approved condition for medical marijuana. However, this is not based on any research. There is no evidence that marijuana successfully treats PTSD and there is evidence that it can make it worse. Marijuana is not the answer for PTSD similar to the reason why benzodiazepines or alcohol are not the answer for PTSD. All these compounds do is provide temporary relief by numbing the individual and disconnecting them from the traumatic emotion. It does not resolve the trauma, and they have to continue to use multiple times a day in order to continue with the benefit. This can lead to increased addiction potential and withdrawal symptoms, cognitive impairment, a-motivational syndrome, and the potential for psychosis or worsening psychosis from the PTSD. An observational study done by the VA followed 2,276 Veterans who were treated for PTSD in one of the VA PTSD treatment programs around the country.<sup>25</sup> It compared those

using marijuana and those not using it and found those who never used marijuana had significantly lower symptom severity four months after PTSD treatment. Those who were using marijuana but stopped using it in treatment had the lowest level of PTSD symptoms four months after treatment, and those who started smoking marijuana had the highest levels of violent behavior and PTSD symptoms four months after treatment. Another conundrum that impacts treatment for PTSD is the possibility that cannabis users have an increased susceptibility to memory distortions even when abstinent and drug free which can compromise reality monitoring. Riba et al. studied 16 heavy cannabis users (daily for last two years – average of 21 years) to 16 matched cannabis naïve controls.<sup>26</sup> The cannabis users had to abstain from cannabis use for four weeks prior to the study. The study involved a memory paradigm including a study phase and a testing phase with the participant in an MRI scanner. They were given lists of four words to memorize and then shown a different list and they had to report if the words were on the previous list. Marijuana users were significantly more likely to have false recognition of the words and were less likely to reject that they had a false memory compared with the non-users.

Multiple studies have documented a relationship between cannabis use and suicidality. A large, longitudinal study in Australia and New Zealand of over 2000 adolescents and maximum frequency of marijuana use found almost a seven fold increase in suicide attempts in daily marijuana users compared with non-users.<sup>27</sup> A Congressional Hearing on April

27, 2017, reported that Veteran suicides were up 32% since 2001 compared to a national increase of 23% during the same time period. A 2017 cross-sectional multi-site VA study of 3,233 Veterans found that cannabis use disorder was significantly associated with both current suicidal ideation ( $p < .0001$ ) and lifetime history of suicide attempts ( $p < .0001$ ) compared to Veterans with no lifetime history of cannabis use disorder.<sup>28</sup> This significant difference continued even after adjusting for sex, PTSD, depression, alcohol use disorder, non-cannabis drug use disorder, history of childhood sexual abuse, and combat exposure. According to the Colorado Department of Public Health and Environment, marijuana is by far the most frequently encountered drug on toxicology screens of suicides among adolescents ages 10 – 19 and has been increasing over the last eight years.<sup>29</sup>

Misguided marijuana advocates have recently been suggesting that marijuana is a solution for the opioid epidemic. There is no clinical evidence of this and in fact, marijuana is found to be more of a “companion” drug rather than an “alternative” drug for most patients seeking addiction treatment in Colorado. A study of 5,315 adolescents in the UK with three or more measures of cannabis use from age 13–18 found a dose-response relationship between cannabis use trajectories in adolescence and nicotine dependence, harmful alcohol consumption, and other illicit drug use by age 21.<sup>30</sup> A large study of 34,653 individuals using NESARC data compared cannabis use at wave 1 (2001–2002 – 81% response rate) to prescription opioid use disorder at wave 2 (2004–2005 –

70.2% response rate).<sup>31</sup> Cannabis use at wave 1 was associated with a significant increase of having a prescription opioid use disorder at wave 2, with over four times the risk for those who had frequent use of marijuana.

There is evidence that prenatal exposure of cannabis can alter opioid gene function in humans. Fetal brains obtained from aborted fetuses from women who were using marijuana during their pregnancy were compared to those from women not using marijuana during pregnancy.<sup>32</sup> The researchers discovered impaired opioid-related genes in distinct brain circuits that they hypothesized may have long term effects on cognitive and emotional behavior. These findings are comparable to findings with animals. One study of prenatal cannabis exposure in rats found that the THC exposed rats exhibited shorter latency to first active lever press for heroin and had higher heroin-seeking during mild stress and drug extinction than animals not exposed to THC.<sup>33</sup> The THC exposed animals exhibited allostatic changes in the limbic encephalin systems in adulthood.

Another interesting study that supports the idea that cannabis use and opioid use are linked was in a randomized, double-blind, placebo controlled trial of naltrexone in non-treatment seeking cannabis smokers.<sup>34</sup> In a laboratory setting those receiving a placebo had 7.6 times the odds of self-administering active cannabis compared with those receiving daily naltrexone, an opioid receptor blocker.

If states continue to commercialize marijuana as has been done in Colorado we are destined to see many more people requiring treatment for addiction, depression, anxiety, suicidal ideation, and psychosis. We need to continually educate every one of the risks and increase prevention efforts to prevent children and adolescents from initiating marijuana use. This should include a strong ban on any advertising that appears to be directed toward youth – for all drugs including marijuana, tobacco, and alcohol. States will need to commit to increased funding for and availability of treatment options. The strongest recommendation would be to initiate regulations to limit the concentration of THC. Ideally this would be to less than 10% as there is no good research on concentrations greater than this for any medical condition and there is significant literature on the negative effects of high potency THC.

**2023 MDMDA SB 516 SWA.pdf**

Uploaded by: Ashlie Bagwell

Position: FWA



## TESTIMONY ON BEHALF OF THE MARYLAND MEDICAL DISPENSARY ASSOCIATION

Senate Bill 516—Cannabis Reform  
**SUPPORT with AMENDMENTS**  
Senate Finance Committee  
March 9, 2023

The Maryland Medical Dispensary Association (MDMDA) was established in May, 2017 in order to promote the common interests and goals of the Medical Cannabis Dispensaries in Maryland. MDMDA advocates for laws, regulations and public policies that foster a healthy, professional and secure medical cannabis industry in the State. MDMDA works on the State and local level to advance the interests of licensed dispensaries as well as to provide a forum for the exchange of information in the Medical Cannabis Industry.

The MDMDA has consistently supported legislation that legalizes cannabis for adult use in a way that continues to increase diversity in the cannabis industry while at the same time setting up a taxing structure so as to greatly minimize the illicit market in Maryland. We appreciate Senator Feldman and Senator Hayes' commitment to these goals as outlined in Senate Bill 516. We respectfully request consideration of the following:

### **Micro-dispensaries**

The MDMDA has concerns and a number of questions related to the micro-dispensary licenses (page 37, lines 17-20). While we understand that, as defined, they will not have a physical space (non-storefront), will they be allowed to have warehouse/storage space? If so, this would make it very hard for any of the small, brick and mortar dispensaries—converted or new standard licenses-- to compete. Are they able to use independent contractors, over and above the ten-employee limit? Are there limitations on the amount of product any vehicle can carry at one time? Are they allowed to deliver cannabis 24/7 and can they deliver statewide? Will they be able to sell at pop up events that are broken down at the end of the night? We believe more thought should be given to these and other issues prior to awarding this particular licensing category. Therefore, we would request the General Assembly consider a pilot program with a much smaller number of licenses prior to issuing these micro-dispensary licenses.

### **Delivery**

Currently licensed dispensaries are allowed to deliver medical cannabis. While all of them do not deliver, some do, and they do so safely, adhering to all regulations related to delivery services. We would request that all converted dispensaries be allowed to continue delivery.



### **Issuing New Licenses**

After the first round of new licenses are issued and before a second round is contemplated, we would request an assessment be done in order to ensure first round licenses have had adequate time to open and be established and that there is adequate demand for more licenses. Our shared goal is to make sure new licensees have an opportunity to be successful. Therefore, we want to make sure they have time to establish their business and that the number of licenses does not exceed demand.

### **Ownership Caps**

MDMDA has been on record consistently voicing concerns about consolidation in Maryland's industry and protecting and supporting independent, Maryland-owned licensees. What can appear to be a small change in ownership caps can have huge impacts on the market. If the General Assembly decides to amend the ownership cap proposed in Senate Bill 516, we would urge going no higher than the FOUR dispensaries per license holder already allowed in current law.

### **County Based Licenses**

This bill proposes that each dispensary would be assigned to the county in which they are located instead of to the senatorial district to which they were originally assigned. However, grower dispensaries still have the ability to move and locate anywhere in the state while all other dispensaries can only move around in the county to which they are assigned. In order to create parity amongst all dispensaries, we respectfully request that all grower dispensaries be limited to the County in which they are located on January 1, 2023.

The geographic spread of dispensaries across the state is one of the most important considerations to a county-based licensing system. Currently, there are areas of the state with high concentrations of dispensaries and areas that are underserved. We urge amendments that would clarify that the intent of the bill is to ensure underserved areas of the state do have dispensaries open in those areas, while also discouraging further high concentration areas.

### **Moratorium**

The bill establishes a five-year moratorium whereby licensees are not able to sell or transfer ownership of their license for five years (page 57, lines 4-7). All existing licenses are already subject to a three-year moratorium as a result of House Bill 2 that passed a number of years ago. We would request converted licenses be exempt from this moratorium language. If the General Assembly wants to include moratorium language in the bill for all licensees, we would request it be lowered from FIVE to TWO years.

### **Conversion Fees/Licensing Fees**

The conversion fees proposed for dispensaries in the bill is quite high (page 42, lines 12-25). Even with the state 280e fix that passed last year, the tax liability for dispensaries is enormous. Right now, some dispensaries are still unable to pay their licensing fee for the medical program (\$40,000 annually) without breaking it into installments. And even then, many are having to get loans. We would request consideration of three things:

- Allow conversion fees and licensee fees be paid in installments. While we appreciate the 18 months allowed in House Bill 556 as amended, we would still request a longer period of time unless the amount of the conversion fee is to be decreased.
- If the Committee decides to use a scale like the one proposed in the bill, we would urge the use 'total sales' data from METRC to compute conversion fees for dispensaries as opposed to 'gross revenue.' This number is an easily verifiable number for both the regulator and licensees.

- If the Committee decides to use a scale like the one proposed in the bill, consider changing the range of the conversion fees such that they would be broken down in \$2.5 million ranges after the initial under \$1 million in revenue. This could help ease the burden on lower revenue dispensaries.
- On page 43, lines 13-17, the legislation proposes a renewal fee that is not to exceed 10 percent of the licensee's annual gross revenue. It needs to be clarified that this renewal fee is not due at the same time of the conversion fee but rather upon license renewal, which is five years later.

### **Adequate Supply of Product**

On page 54 (lines 25-28) and 55 (lines 1-2) of the bill, dispensaries are required to ensure adequate supply of product for medical patients. The bill stipulates that dispensaries must “set aside operating hours to serve only qualifying patients and caregivers.” We would request that additional options be provided here to give dispensaries flexibility in how they decide to prioritize medical patients and caregivers. We would suggest adding “ESTABLISH AN EXPRESS LANE FOR MEDICAL PATIENTS AND CAREGIVERS OR ESTABLISH AN EXPRESS CHECK-IN FOR MEDICAL PATIENTS AND CAREGIVERS.” Express lines for medical patients have been established with great success in many states, including Massachusetts. Also, we urge inclusion of language recognizing that adequate supply can only be maintained at a dispensary if adequate supply at reasonable pricing is available in the market, and that it is a shared responsibility among all license types, not just dispensaries, to ensure medical patient access.

### **Advertising**

We would request simply carrying over the advertising requirements from the medical program, adjusting them to accommodate the adult use program.

In addition, we want to draw specific attention to the language appearing on page 65, lines 16-19. This language would prohibit dispensaries and other licensees from having a sign on the outside of their business. We would, again, request that the advertising language currently in state statute (Section 13-3313.1) be adopted instead of what appears in Senate Bill 516. Specifically, we would like to see the following language adopted: THIS SUBSECTION DOES NOT APPLY TO AN ADVERTISEMENT PLACED ON PROPERTY OWNED OR LEASED BY A DISPENSARY, GROWER OR PROCESSOR. This would ensure that dispensaries and other legal businesses could have signage on their property.

### **Home Grow**

Since Senate Bill 516 allows home grow, we request language be added to the bill allowing dispensaries to sell seeds, clones and cuttings. Patients and consumers are used to purchasing products from dispensaries, so we believe allowing this makes sense.

### **Delta 8**

Last year, MDMDA strongly supported Senate Bill 788/House Bill 1078. This bill essentially would have required that delta-8 products be regulated and tested in the same way as all other medical cannabis products. Companies across the country are exploiting a loophole in the federal 2018 Farm Bill. Delta 8 products contain THC derived from hemp plants. The federal loophole has been interpreted by purveyors of these products as allowing them as “hemp-derived products.” To be clear – the delta-8 products at issue contain the same THC as products regulated as medical cannabis. They are psychoactive, intoxicating products that are being sold outside of any testing or regulatory structure. Therefore, we applaud the bill sponsors for including language in the bill to address this issue. All intoxicating products should be tested and regulated in the same manner.

### **Ownership/control language**

We appreciate the language in the bill related to ownership and control of licenses. We have always advocated for strong language that minimizes the possibility of skirting the law with regard to ownership caps.

### **Onsite Consumption Lounges—Licenses**

As drafted, Senate Bill 516 allows onsite consumption lounges to sell cannabis products. This further adds to the number of retail licenses/retail locations in Maryland. This should be taken into consideration as you deliberate on overall dispensary license caps. With that, MDMDA has two requests with regard to consumption lounges:

Current dispensaries should be eligible to apply for an onsite consumption lounge. Currently, they are prohibited from doing so in Senate Bill 516. Dispensaries already have experience with cannabis products, and-already have an understanding about how to safely store, handle and sell products and already have staff trained to recognize and handle intoxication and substance use disorders.

In addition, the bill allows local jurisdictions the ability to ban smoking and vaping at onsite consumption lounges. Many people, especially renters, are not allowed to smoke or vape in their place of residence. Onsite consumption, lounges, then, provide for them a place to do that. We would respectfully request this language be amended out of the bill.

Lastly, the House Economic Matters Committee alters the definition of ‘dispensary’ such that they remove ‘repackages’ (page 22, line 12). We are strongly opposed to this change. This has been a part of the definition since the inception of the medical program, and dispensaries have developed and follow standard operating procedures related to repackaging. We would respectfully request this practice be maintained. Dispensaries are able to do it safely, and patients appreciate the flexibility repackaging allows.

We greatly appreciate the opportunity to provide comments on this important issue. We appreciate the work Senator Feldman and Senator Hayes have put into this, and we look forward to continuing to work with them as well as the members of the Senate Finance Committee and Senate Budget and Taxation Committee as you deliberate further on this legislation.

**Pg 2 SB516 Final.pdf**

Uploaded by: Barry Glassman

Position: FWA

we are most appreciative of the Compassionate Care Fund and its emphasis on veterans as we have led efforts to assist homeless vets with clothing and food drives. Nature's Care and Wellness has also helped educate vets suffering from PTSD on the benefits of medical cannabis.

Thank you for giving us the opportunity to share some of our thoughts on possible amendments to HB 556 and we would be glad to provide any additional information in the coming days as you deliberate this legislation for all Marylanders.

Sincerely,

Barry Glassman

CC: Bobby Windsor, Nature's Care and Wellness, LLC

**Testimony - SunX - 2023 SB516 230309.pdf**

Uploaded by: Barry Pritchard

Position: FWA

Testimony 3/9/23  
Senate Bill #516

Good afternoon committee members. My name is Barry Pritchard. I would like to thank the committee for taking my testimony on SB516. As a matter of background, I am an analytical chemist by education, with 40 years of experience as a natural products scientist. I am the owner of SunX Analytical based in Cambridge, MD.

SunX has the distinction of being the first legal cannabis business in MD as we were the first applicant for consideration as an MMCC ITL in June 2016. Our initial application was used as a guide for a significant portion of the original, and current, protocols for the analysis of Maryland's Medical Cannabis products. We turned our focus to industrial hemp in 2018.

SunX is a fully vertical hemp CBD consumer products manufacturer. We have provided testing or extraction and formulation services to many of the region's hemp farming operations. We have been instrumental in providing guidance for the MD Department of Agriculture on industrial hemp regulatory issues and have been the trusted testing partner for the University of Maryland hemp pilot program's Principal Investigators. SunX has been awarded grants two from the Rural MD Council to support the hemp industry. Our vision has been to guide the industry through its early years of CBD production with the goal of raising awareness to the overall value of hemp to the farming community while showing the way for the adoption of it as a potentially rotational crop to be harvested for seed oil and fiber.

As you know, there are several bills in the State legislature addressing the future of the cannabis and hemp industries in MD. Senate Bill 516 and co-filed House Bill 556 will establish a regulatory system for adult-use and medical cannabis.

I am contacting you to alert you to the fact that language in this bill will significantly restrict the types of hemp-derived products that one can produce and sell in Maryland. Our sense is that the legislation intends to either restrict or include manufacturing of all products that it perceives as intoxicating in the adult-use regulated program. To wit:

8 (B) A PERSON MAY NOT SELL OR DISTRIBUTE A CANNABINOID PRODUCT  
9 THAT IS NOT DERIVED FROM NATURALLY OCCURRING BIOLOGICALLY ACTIVE  
10 CHEMICAL CONSTITUENTS.

As stated in my opposing testimony last year to HB1078, without the creation of comprehensive standards for non-naturally occurring cannabinoids, we support the decision to include restrictions to their sale and distribution.

However, we are in staunch opposition to the adoption of the THC limits to hemp-derived products detailed in Section 36-1103 (A) described below. These limits would require an adult-use license to manufacture most products made from simple hemp extracts. These limits are in clear contradiction to the Federal standard and demonstrates the author's ignorance of the public's actual experience with products like Charlotte's Web and peer-reviewed studies establishing that CBD is a known antagonist to cannabinoid CB1 receptors. In other words, credible pharmacological studies have shown that CBD reduces both the potency and efficacy of THC. Therefore, the amount of THC in a hemp-derived (CBD rich) product has no relation to the THC in a marijuana-derived (CBD deprived) product and, as such, are not a valid value for the determination of intoxication effect.

23 (A) (1) A PERSON MAY NOT SELL OR DISTRIBUTE A PRODUCT INTENDED  
24 FOR HUMAN CONSUMPTION OR INHALATION THAT CONTAINS MORE THAN 0.5  
25 MILLIGRAMS OF TETRAHYDROCANNABINOL PER SERVING OR 2.5 MILLIGRAMS OF  
26 TETRAHYDROCANNABINOL PER PACKAGE UNLESS THE PERSON IS LICENSED UNDER  
27 § 36-401 OF THIS TITLE AND THE PRODUCT COMPLIES WITH THE:  
28 (I) MANUFACTURING STANDARDS ESTABLISHED UNDER §  
29 36-203 OF THIS TITLE;

Consider that in order to continue to make a simple botanical hemp extract our hemp farms, that currently operate under Federal law, would have to register and submit to the regulations of an industry that operates outside of Federal law. Further, the bill's language is in conflict as 36-101 (C) (1) defines hemp with a 0.3% THC threshold, while Section 36-1103 (A) sets its limits at 0.01%; a thirty (30) times reduction. By example, where a typical hemp-derived product has a CBD



concentration of about 1200mg, the new limits would allow for only 40mg per one ounce container (package).

The passage of this Bill as it now reads will place our local hemp farms, producers and retailers at a significant disadvantage in the market and in our opinion is a direct attack of the MD Right to Farm statute.

I would also like to provide a potential solution to the proposed restrictions by suggesting a change in the language to raise the limits to reflect the Federal THC limits as defined in the 2018 Farm Bill to 3mg THC per hemp-derived CBD per serving and 90mg per package. As a compromise, restrictions on the use of the marketing term "Hemp-derived THC" could be adopted.

We ask that Section 36-1103 (A) be adjusted as suggested or removed from the Bill's final draft and allow MD's hemp industry to follow its current path of self-regulation. Our Federally compliant products, of which we have sold more than 30,000 units with no complaints of them having an intoxicating nature, are made following cGMP and FDA Food Safety Act guidelines.

We recommend a favorable report with amendments.

Thank you.

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PMID: [26218440](https://pubmed.ncbi.nlm.nih.gov/26218440/)

## **Cannabidiol is a negative allosteric modulator of the cannabinoid CB<sub>1</sub> receptor**

[R B Laprairie](#),<sup>1</sup> [A M Bagher](#),<sup>1</sup> [M E M Kelly](#),<sup>1,2</sup> and [E M Denovan-Wright](#)<sup>1</sup>  
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### **Abstract**

#### **Background and Purpose**

Cannabidiol has been reported to act as an antagonist at cannabinoid CB<sub>1</sub> receptors. We hypothesized that cannabidiol would inhibit cannabinoid agonist activity through negative allosteric modulation of CB<sub>1</sub> receptors.

#### **Conclusions**

In conclusion, this *in vitro* study was the first characterization of the NAM activity of the well-known phytocannabinoid CBD. The data presented here support the hypothesis that CBD binds to a distinct, allosteric site on CB<sub>1</sub> receptors that is functionally distinct from the orthosteric site for 2-AG and THC. Using an operational model of allosteric modulation to fit the data (Keov *et al.*, [2011](#)), we observed that CBD reduced the potency and efficacy of THC and 2-AG at concentrations lower than the predicted affinity of CBD for the orthosteric site of CB<sub>1</sub> receptors. Future *in vivo* studies should test whether the NAM activity of CBD explains the ‘antagonist of agonists’ effects reported elsewhere (Thomas *et al.*, [2007](#)). Indeed, the NAM activity of CBD may explain its utility as an antipsychotic, anti-epileptic and antidepressant. In conclusion, the identification of CBD as a CB<sub>1</sub> receptor NAM provides new insights into the compound's medicinal value and may be useful in the development of novel, CB<sub>1</sub> receptor-selective synthetic allosteric modulators or drug combinations.

# **SB0516\_BehnamPeykari\_Owner.pdf**

Uploaded by: Behnam Peykari

Position: FWA

Honorable Senators and Members of the Senate Finance Committee:

My name is Behnam Peykari, a minority business owner in the Maryland Hemp Industry. I am writing to you as a concerned minority business owner in the hemp industry called ELEVATED WELLNESS SOLUTIONS (EWS). My background is business and finance, and I acquired my degree in business from University of Baltimore in 2011. I have been researching the hemp industry since 2016 and in 2020, EWS was born. EWS has been educating the veterans and their families, individuals, communities as well as the MMCC patients in our state, on alternative wellness including but not limited to cannabinoids, its origins, usage, and potential wellness benefits. We offer complimentary consultation on hemp derived products. In 2021 EWS has been partnering with over a dozen medical dispensaries in our state and been going to these dispensaries at least on a monthly basis in order to educate their staff and patients via pop-ups. Also, we offer classes on these topics at our own Wellness Center every single week, if not daily and our social media is full of fun, yet, educating materials for all adults over the age of 21 to learn more. I have invested my entire savings and assets and devoted my life into learning and growing EWS, mainly to be able to provide as much information as we have learned, based on current data and science available to us. From day one, we've only served adults over the age 21 or current MMC patients and all of the products leaving our wellness center, come with 3<sup>rd</sup> party certificate of analysis, which we take time to explain and show everyone how to read and the importance of understanding these COA's before consuming any products. EWS has been ranked as one of the best wellness centers in Maryland, and currently, we are the ONLY model for providing education on hemp derived goods and set new rules and high standard for the industry.

I am writing you to express my deep concerns about the proposed language in the Cannabis Reform Act, SB0516, that aims to lower the acceptable Delta-9-Tetrahydrocannabinol concentration below the federally threshold of 0.3% on a dry weight basis to ban "cannabinoid products not derived from naturally occurring biologically active chemical constituents", and to place a cap on THC at 0.5mg per serving and 2.5mg total THC per package for those without a recreational cannabis license.

This language is not only misleading but it would render hundreds of products that are currently protected under federal law, illegal. As written, this bill would have a devastating impact on the hemp industry in Maryland and would result in the closure of hundreds of family-owned, small, and minority owned businesses like mine. It would destroy an industry overnight without any input from industry participants. EWS along with The Hemp Industry in Maryland have worked hard to create common sense regulations for these types of products in accordance with the recommendations from the Maryland Medical Cannabis Commission's study group that was formed last year to study these products specifically. We stand ready to support amendments that would protect public safety as well as the industry's ability to participate in the free market. We want regulation, but we do not want to lose our businesses which are protected by federal law due to the implementation of the recreational cannabis industry. A collaborative effort between the hemp and cannabis industry can and should exist as that is what is best for our industry as well as what is best for the consumers of these products.

Most people who purchase these Refined Hemp Cannabinoid products are buying them specifically because they have tremendous therapeutic benefits and do not create the long lasting intense "high" produced by recreational cannabis. Our industry serves a different set of customers. In addition, the prices of the products found at EWS are much less expensive than what is currently offered by the medical marijuana dispensaries and allow those who are economically disadvantaged, like the thousands we've served in Baltimore City, to be able to purchase products that improve their daily lives at a fraction of the cost. We are a resource to many underserved communities. The hemp industry in Maryland requests that ~~§ 36-1103. 2(B)~~ **"A PERSON MAY NOT SELL OR DISTRIBUTE A CANNABINOID PRODUCT THAT IS NOT DERIVED FROM NATURALLY OCCURRING BIOLOGICALLY ACTIVE CHEMICAL CONSTITUENTS"** be struck and regulatory language be amended into the appropriate section of this legislation.

In addition, the proposed cap on THC at 0.5mg per serving and 2.5mg per package without a legal cannabis license (§ 36-1103 (A)(1)) will make it impossible for small hemp businesses to comply. This legislation would have a profound impact on the hemp industry in Maryland and

would result in the closure of hundreds of small family-owned businesses of which over 30% are minority owned. There is already a real climate of social equity in the hemp industry that would be eradicated by this original language as written. The proposed THC cap, in particular, would render all hemp full-spectrum CBD products illegal, despite their federally legal status and widespread consumer use. Currently these products are even being sold in grocery stores and pharmacies across the state.

Establishing limits like these on any products containing cannabinoids should be based on science. Given the past prohibition of hemp and cannabis in general, we lack the important research needed to make these science-based determinations. Making these determinations at this point would be pure speculation. Full-spectrum CBD products contain trace amounts of THC, below 0.3%, which is considered to be within the legal limit under federal law. However, this proposed cap of 0.5mg per serving and 2.5mg per package would effectively move the threshold to 0.05% and make these products significantly less effective and illegal, removing them from the free market and limiting consumer choice by forcing consumers to buy them from an adult use cannabis facility as opposed to a CBD specialty store, pharmacy, or grocery store.

The fact that these adult-use cannabis licenses will not be available until next year only adds to the hardship faced by our small businesses. This bill would not only shut down many businesses, but it would also remove their ability to build the capital needed to get involved in the adult-use cannabis industry which would be required in order to continue offering these products in accordance with the law. This language as written would force hemp businesses to participate in an industry that many of them do not want to participate in. The hemp industry plans to stay in business during and through the implementation of recreational cannabis. The launch of Adult-Use Cannabis will not render us an obsolete industry as our customer base is much different from the traditional marijuana user. We plan on being here to stay.

We would like to see an additional licensing category under the new ATCC for existing hemp businesses that will allow us to continue to operate.

Furthermore, this legislation would criminalize a federally legal industry while legalizing a federally illegal one, making it an ill-advised approach to the issue. This language would further consolidate the cannabis industry and destroy the small business community in the hemp industry which I'm sure is not the intention of the legislature. We ask that language in ( § 36-1103 (A)(1); Page 69, lines 23-27) which aims to place a cap on THC at 0.5mg per serving and 2.5mg per package for those without a recreational cannabis license be amended to mirror the federal law which limits these products to 0.3% of Delta 9 THC on a dry weight basis. This amendment will ensure that the hemp industry in Maryland can continue to thrive and not be placed at a disadvantage when compared to other states. Please do not kill my livelihood, our industry that we worked so hard to build. The intent and goals behind the implementation of the recreational cannabis industry would still be accomplished without the need to crush our industry in the process.

I urge you to reconsider the language in this bill and to consult with the industry before enacting legislation that would have such a damaging impact on small and minority-owned businesses.

Thank you for your time and consideration.

Sincerely,

Behnam Peykari

### **Proposed Amendments to SB0516**

Page 18, line 19: **(C) (1) A DELTA-9-TETRAHYDROCANNABINOL CONCENTRATION GREATER THAN ~~[0.3%]~~ 1% ON A DRY WEIGHT BASIS.**

Page 69, lines 24: **(A) (1) ~~[0.5 MILLIGRAMS OF TETRAHYDROCANNABINOL PER SERVING OR 2.5 MILLIGRAMS OF TETRAHYDROCANNABINOL]~~ 1% DELTA-9-TETRAHYDROCANNABINOL ON A DRY WEIGHT BASIS UNLES THE PERSON IS LICENSED**

Page 70, Line 8, STIRKE : [~~(B) A PERSON MAY NOT SELL OR DISTRIBUTE A CANNABINOID PRODUCT THAT IS NOT DERIVED FROM NATURALLY OCCURRING BIOLOGICALLY ACTIVE CHEMICAL CONSTITUENTS.~~ ]



**SB516 230308 Benjamin Batten\_1.pdf**

Uploaded by: BenJamin Batten

Position: FWA

Testimony 3/9/23  
Senate Bill #516

Hello committee members. Thanks for taking the time to read my testimony for SB516. My name is Benjamin Batten and I have been running my family's farming operation since 2019. I chose to revitalize our 5th generation family farm to return control of the fields to our family and create a more robust local supply chain for our community.

Our farm, Fiddlers Green Farm, has been running an honest, responsible hemp-derived CBD business since the 2018 Farm Bill. We grow the hemp organically, contract out the extraction process to a reputable Maryland business, and sell our products direct to our community at farmers markets. We have invested heavily in time and money to reach the point where we are almost breaking even financially. We have worked very hard to earn the trust of our customers and change the stigma around the hemp industry. We are very close to becoming a successful Maryland farm that does not depend on government subsidies.

As currently written, this bill will significantly restrict the types of hemp-derived products that one can produce and sell in Maryland, which will crush our business. I support the legislature's effort to restrict products that it perceives as intoxicating. I do not support Delta 8 products in any way and we have refused to manufacture them from the beginning because it does not align with our mission. I do not support the adoption of the THC limits to naturally-occurring hemp-derived products detailed in Section 36-1103, Page 69, Line 23-29. These limits are in clear contradiction to the Federal standards as outlined in the 2018 Farm Bill, limits we have built our business around for 4 years.

Plainly put, these limits seem to favor the large corporate interests of out of state companies looking to gain control of the entire cannabis market. It also seems as this legislation has moved extremely quickly to give very little time for opposition. This current language will kill our small business and other similar Maryland businesses that don't wish to compete with the recreational THC industry.

I will support SB516 with a change in the language to raise the limits to reflect the Federal THC threshold of 3mg THC per hemp-derived CBD per serving and 90mg per package.

Thank you for the consideration of our proposed amendments and look forward to your support of the industrial hemp industry in Maryland.

Regards,

Benjamin Batten  
Managing Partner  
Fiddlers Green Farm  
[www.fiddlersgreen.io](http://www.fiddlersgreen.io)  
Taneytown, MD

# **Colorado Final Report (1).pdf**

Uploaded by: Blake Van Wingerden

Position: FWA

# Senate Bill 22-205:

## Intoxicating Hemp and Tetrahydrocannabinol Products

Concerning the regulation of cannabis-related products that may potentially cause a person to become intoxicated when used.

### Task Force Report

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**Mark Ferrandino**  
Executive Director  
State Licensing Authority  
Colorado Department of Revenue

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#### Task Force Members

Truman Bradley	Brian Higgins	Kyle Ray
Stephen Cobb	Wanda James	Jefferey Riester
Jeremy Epley	Sasha Kalcheff-Korn	Christian Sederberg
Garrett Graff	Alan Lewis	Bridget Seritt
James Granger	Dominique Mendiola	Priyanka Sharma
John Harloe	Bruce Nassau	Jared Stanley
Michael Hennesy	Erik Paulson	

**January 1, 2023**

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## **EXECUTIVE SUMMARY**

It is the intent of this task force of hemp and marijuana industry representatives and government officials to study the topic of intoxicating compounds and propose legislative and rule recommendations, based on science. The task force includes broad representation from regulators, manufacturers, refiners, retailers, labs, consumer nonprofit organizations and patients, and is intended to ensure that all viewpoints are captured and incorporated in the following recommendations.

The recommendations presented are based on one or more of the following goals and guiding principles<sup>1</sup>:

- A. Ensure consumer protection and safety
- B. Promote equitable participation by industry/market participants
- C. Support opportunities for research
- D. Ensure enforcement priorities are clear, consistently applied, and balanced with other compliance measures
- E. Base recommendations on data and science
- F. Develop clear recommendations and guidance that consider opportunities for alignment with other state, federal, and/or international standards where appropriate

The task force has developed purposeful recommendations regarding the sale of hemp-derived products which may intoxicate a consumer along with chemically-converted and synthetically-derived intoxicating THC isomers, which may potentially cause a person to become intoxicated when used.

Recommendations are conditional. It is recognized that additional research is necessary to sensibly propose recommendations based in science on intoxicating levels of specific cannabinoids.

## **DEFINITIONS**

As used or referred to in this report, the following terms have these associated meanings:

“**Adult Use**” is an alternate term for Retail Marijuana.

“**Department**” means the Colorado Department of Public Health and Environment.

“**Division**” means the Marijuana Enforcement Division.

“**Industrial Hemp Product Regulations**” means the Code of Colorado Regulations 6 CCR 1010-21, adopted by the State Board of Health

“**License**” means to grant a license, permit, or registration pursuant to the Marijuana Code.

“**Licensee**” means any Person licensed, registered, or permitted pursuant to the Marijuana Code including an Owner Licensee and an Employee Licensee.

“**Local Jurisdiction**” means a locality as defined in Section 16 (2)(e) of Article XVIII of the State Constitution of Colorado.

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<sup>1</sup> Task Force goals and guiding principles are based on feedback (previously referred to as “hopes and concerns”) provided in the July 13, 2022 Task Force meeting and were further amended in the course of the Task Force’s work.

“**Local Licensing Authority(ies)**” means an authority designated by municipal, county, or city and county charter, ordinance, or resolution; the governing body of a municipality or city and county; or the board of county commissioners of a county if no such authority is designated.

“**Marijuana Code**” means the Colorado Marijuana Code found at Sections 44-10-101 *et seq.*, Colorado Revised Statutes (C.R.S.).

“**Marijuana Rules**” means the Code of Colorado Regulations 1 CCR 212-3.

“**Registrant**” means an industrial hemp product producer registered with the Department.

“**Regulated Marijuana**” means Medical Marijuana and Retail Marijuana. If the context requires, Regulated Marijuana includes Medical Marijuana Concentrate, Medical Marijuana Product, Retail Marijuana Concentrate, and Retail Marijuana Product.

“**Regulated Marijuana Business**” means Medical Marijuana Businesses and Retail Marijuana Businesses.

“**Regulated Marijuana Product**” means Medical Marijuana Product and Retail Marijuana Product.

“**Retail Marijuana**” means all parts of the plant of the genus *Cannabis*, whether growing or not, the seeds thereof, the resin extracted from any part of the plant, and every compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds, or its resin, including but not limited to Retail Marijuana Concentrate that is cultivated, manufactured, distributed, or sold by a licensed Retail Marijuana Business. “Retail Marijuana” does not include industrial hemp or fiber produced from stalks, oil, or cake made from the seeds of the plant, sterilized seed of the plant, which is incapable of germination, or the weight of any other Ingredient combined with marijuana to prepare topical or oral administrations, food, drink, or other product. If the context requires, Retail Marijuana includes Retail Marijuana Concentrate and Retail Marijuana Product.

“**Retail Marijuana Business**” means a Retail Marijuana Store, a Retail Marijuana Cultivation Facility, a Retail Marijuana Products Manufacturer, a Marijuana Hospitality Business, a Retail Marijuana Hospitality and Sales Business, a Retail Marijuana Testing Facility, a Retail Marijuana Business Operator, and a Retail Marijuana Transporter.

“**Retail Marijuana Cultivation Facility**” or “**Retail Cultivation**” means an entity licensed to cultivate, prepare, and package Retail Marijuana and sell Retail Marijuana to Retail Marijuana Stores, to Retail Marijuana Products Manufacturers, and to other Retail Marijuana Cultivation Facilities, but not to consumers.

“**Retail Marijuana Product**” means a product that is composed of Retail Marijuana and other Ingredients and is intended for use or consumption, such as, but not limited to, edible product, ointments, and tinctures.

“**Retail Marijuana Products Manufacturer**” or “**Retail Manufacturer**” means an entity licensed to purchase Retail Marijuana; manufacture, prepare, and package Retail Marijuana Product; and Transfer Retail Marijuana, Retail Marijuana Concentrate, and Retail Marijuana Product only to other Retail Marijuana Products Manufacturers, Retail Marijuana Stores, Retail Marijuana Hospitality and Sales Businesses, and Pesticide Manufacturers.



“**State Licensing Authority**” or “**SLA**” means the authority created for the purpose of regulating and controlling the licensing of the cultivation, manufacture, distribution, sale, and testing of Regulated Marijuana in Colorado, pursuant to Section 44-10-201, C.R.S.

“**Transfer(s)(ed)(ing)**” means to grant, convey, hand over, assign, sell, exchange, donate, or barter, in any manner or by any means, with or without consideration, any Regulated Marijuana from one Licensee to another Licensee, to a patient, or to a consumer. A Transfer includes the movement of Regulated Marijuana from one Licensed Premises to another, even if both premises are contiguous, and even if both premises are owned by a single entity or individual or group of individuals; a Transfer also includes a virtual Transfer that is reflected in the Inventory Tracking System, even if no physical movement of the Regulated Marijuana occurs.

## **BACKGROUND**

### **Senate Bill 22-205 and Establishment of the Task Force**

#### *I. Bill Summary<sup>2</sup>*

SB22-205, Intoxicating Hemp and Tetrahydrocannabinol Products, *Concerning the regulation of cannabis-related products that may potentially cause a person to become intoxicated when used.*

The act authorizes the department of public health and environment to promulgate rules to prohibit the chemical modification, conversion, or synthetic derivation of intoxicating tetrahydrocannabinol isomers that originate from industrial hemp or may be synthetically derived.

The act also creates a task force to study intoxicating hemp products and make legislative and rule recommendations. The task force will submit a report to the general assembly by January 1, 2023. The task force consists of 20 members including representatives of state government, experts in marijuana and industrial hemp regulation, persons licensed in the marijuana and medical marijuana fields, persons working with industrial hemp, testing laboratories, and a representative of a county or district public health agency.

For the 2022-23 state fiscal year, the act appropriates \$587,347 from the marijuana tax cash fund to the department of law, \$4,630 of which is reappropriated to the department of personnel.

#### *II. Establishment of the Task Force*

Senate Bill 22-205 directs the Colorado Department of Revenue’s Executive Director to “...*create a Task Force to study intoxicating hemp products and make legislative and rule recommendations.*” Senate Bill 22-205 directed the Task Force consist of the following representatives:<sup>3</sup>

- A. One representative appointed by the Executive Director to represent the State Licensing Authority;
- B. One representative appointed by the Executive Director of the Department of Public Health and Environment;
- C. One representative appointed by the Attorney General;
- D. One representative appointed by the Commissioner of Agriculture;
- E. One representative appointed by the Executive Director who is an attorney with expertise in the regulation of marijuana;
- F. Four representatives appointed by the Executive Director to represent persons licensed as a medical or retail marijuana cultivation or products manufacturer;
- G. One representative appointed by the Executive Director of the Department of Public Health and Environment, in consultation with the Commissioner of Agriculture, who is an attorney with expertise in the regulation of Industrial Hemp;

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<sup>2</sup> Colorado General Assembly, [SB 22-205 Bill Summary](#)

<sup>3</sup> Colorado Marijuana Enforcement Division, [SB 22-205 Task Force Final Announcement](#)

- H. One representative appointed by the Executive Director of the Department of Public Health and Environment, in consultation with the Commissioner of Agriculture, to represent hemp refiners;
- I. One representative appointed by the Executive Director to represent a consumer nonprofit organization;
- J. One representative appointed by the Executive Director of the Department of Public Health and Environment, in consultation with the Commissioner of Agriculture, to represent full spectrum industrial hemp producers;
- K. One representative appointed by the Executive Director to represent medical patients;
- L. Two representatives appointed by the Executive Director of the Department of Public Health and Environment, in consultation with the Commissioner of Agriculture, to represent persons who sell hemp at retail;
- M. Two representatives appointed by the Executive Director to represent persons licensed under Article 10 as a Medical or Retail Marijuana Store;
- N. One representative appointed by the Executive Director of the Department of Public Health and Environment, in consultation with the Commissioner of Agriculture, to represent testing labs; and
- O. One representative appointed by the Executive Director to represent a county or district public health agency established under section 25-1-506.

According to Senate Bill 22-205, the Task Force report must include any legislative recommendations concerning the regulation of industrial hemp, an analysis of the effectiveness of each recommendation, and rule recommendations concerning the regulation of intoxicating hemp products. See 44-10-206(2), C.R.S.

This report is founded on several core long-standing legal and policy principles that are fundamental to protecting public health and safety.

- The 2018 Farm Bill exempted hemp from the Controlled Substances Act (CSA) but expressly preserved the FDA's authority to regulate hemp and products containing hemp ingredients under the Food, Drug, and Cosmetics Act (FDCA), as well as other product safety laws and regulations.
- The Food and Drug Administration (FDA), the federal agency charged with implementing the FDCA and other safety laws, has failed to execute its responsibilities to regulate consumable products containing hemp ingredients after the passage of the 2018 Farm Bill. As the FDA continues to delay evaluating safety of hemp ingredients and establishing a regulatory pathway for hemp ingredients in consumer products, it has also failed to expand their authority on existing product safety regulations to encompass hemp products (except where products make egregious drug claims).
- Despite the FDA's failure to act, the legalization of hemp has allowed businesses to develop and innovate novel cannabinoids that are beneficial consumer products. States around the country are attempting to address regulation of these products to allow for a high standard of consumer safety while continuing to encourage development and innovation within an emerging industry.
- However, the absence of FDA enforcement also created an active market for THC-based intoxicating hemp products that may not be compliant with federal product safety standards nor are subject to state marijuana regulations. These products often have higher levels of THC than

are permitted in marijuana stores, are often produced using chemical synthesis without regulatory oversight, and many do not meet fundamental safety-based manufacturing, processing, and retail standards.

- The federal partial step towards cannabis legalization, by decriminalizing low THC cannabis plants while maintaining prohibition on high-THC varieties, has exacerbated the need for regulation and enforcement around product manufacturing, testing, labeling, and other safety standards. Until all cannabis is fully federally legalized or the FDA sufficiently addresses the issue, states must act to fill the existing regulatory gap that has allowed the proliferation of unsafe, intoxicating products and significant confusion by consumers, regulators, and enforcement agencies.
- State action should be grounded in core federal product safety standards for the relevant consumer goods. Those regulations are founded on fundamental components of product safety to ensure products are safe for their intended use and not adulterated. These are also the most likely regulatory standards that will be imposed when the FDA or Congress finally acts, many of which are already incorporated at the state level in Colorado and other jurisdictions through state level food and drug laws. This should include:
  - Consumable products fall within specifically designated categories with respective safety standards, specifically food and dietary supplements.
  - A food ingredient must be safe under the conditions of its intended use and meeting Current Good Manufacturing Practices (“cGMP”). Dietary supplements are intended to supplement the diet and contain at least one dietary ingredient, which are also subject to safety standards.
  - Substances at intoxicating levels, intended to be used for intoxication or inebriation, or produced through unsafe processes generally do not meet safety standards for foods or dietary supplements, and therefore should not be considered industrial hemp products.
  - To draw a comparison with another federally legal intoxicating substance, alcohol falls under specialized regulations to appropriately address safety concerns including production, potency levels, labeling, marketing, packaging, and age-gating.
  - Ingredients for all food and dietary supplements must meet specific safety profiles.
  - It is the responsibility of product manufacturers to demonstrate safety and compliance of marketing of their product internally or through formal approach channels prior to a products introduction into the market and not the government's job to prove that something is unsafe unless it is challenging that company's determination.

## **Industrial Hemp Legal Authority**

### *I. Background and history of Industrial Hemp in Colorado*

Colorado citizens voted to pass Amendment 64 in 2012 that made us the first state to legalize hemp and engrave it in our Constitution. The General Assembly enacted legislation in 2013 and delegated CDA with responsibility for most hemp-related registration and inspection oversight. Statutory authority for Colorado's Industrial Hemp Program appears in § 35 - 61 C.R.S.

The 2018 Farm Bill legalized hemp to be produced in the U.S., amended the Controlled Substances Act (CSA) to remove hemp from the definition of marijuana. The legislation allowed commercial cultivation of hemp and effectively replaced the 2014 Farm Bill pilot projects. Under the 2018 Farm Bill, each state must submit a plan to the USDA for approval that includes a framework for regulation and monitoring of production. The USDA issued its Interim Final Rule in October of 2019 addressing hemp cultivation, harvest, and testing. The rule, however, puts lots of hardship on producers and states implementing the program. In January of 2021, the USDA published a Final Rule which has made several changes from the IFR where many of those changes aligned with the comments submitted by the State of Colorado.

Colorado has submitted its first State Plan based on the IFR on June 18, 2020 and later submitted the final State Plan on June 1, 2021. The State Plan was officially approved by USDA on July 15, 2021.

## *II. Hemp Advisory Committee*

The Industrial Hemp Advisory Committee was established in 2013 with § 35-61-103. The Industrial Hemp Act, specifically § 35-61-103 (Industrial hemp advisory committee- -appointments- -duties--coordination with commission) was amended on September 14, 2020, to include appointment of all 10 positions of the HAC by the Agricultural Commission (“Ag Commission”) rather than the State Legislature. Members appointed to a position serve for a period of 3 years with appointments staggered to maintain continuity. Members of the Committee include representatives from hemp regulation, farmer from a cooperative, a commercial farmer, seed development and genetics, hemp manufacturing, hemp small business, citizen advocate for hemp, cannabinoid industry, certified seed growers, and research & development from an institution of higher learning. The Committee meets with CDA on a quarterly basis.

## *III. Rulemaking authority*

CDA promulgated a comprehensive set of rules to administer and enforce the Colorado Industrial Hemp Regulatory Program Act § 35 - 61 C.R.S. which is enabled by the regulations in 8 CCR 1203-23 at the end of 2013. The rule was constantly revised a total of seven times prior to the 2018 Farm Bill showing the dynamic nature of the crop and the need to address several aspects of cultivation. CDA is the first agency in the state of Colorado to regulate Industrial Hemp and it is the second state to do so in the nation.

## *IV. Scope and focus of the CDA Hemp program*

The Colorado Department of Agriculture's Hemp Program regulates only the cultivation of hemp. The Department also administers a certified seed program. CDA transitioned the certified seed program to CSU in 2021 while still retaining administrative oversight. Major components of the program include registration, reporting, inspection, sampling, testing, and enforcement. The Department issues commercial and research & development registrations for any individual or legal entity to grow Hemp on a Registered Land Area. Registrants are required to submit planting and harvest reports along with other documents in a timely manner. Inspections are conducted randomly and by risk with CDA inspectors to ensure compliance with the rules and regulations. CDA's Biochemistry laboratory analyzes samples collected by CDA staff. All lots of hemp are sampled prior to harvest by CDA Authorized Samplers and tested by a

Hemp Testing Lab certified by the Colorado Department of Public Health and Environment. Additionally, CDA enforces the Hemp Act and Rules including negligent and culpable violations.

## **Industrial Hemp Products Legal Authority**

### *I. Brief History of Hemp Products in Colorado*

While the federal farm bill and Colorado legalized the cultivation of industrial hemp as a crop in 2014 and 2015 respectively, neither legislation legalized the production of industrial hemp products such as food and dietary supplements. In 2017, the Colorado Department of Public Health and Environment (CDPHE) implemented a policy allowing for the production of industrial hemp products with specific requirements for the sourcing of the industrial hemp and other ingredients, labeling, and potency testing, along with the requirements to register as a Wholesale Food Manufacturer under the provisions of § 25-5-426, C.R.S.

In 2018, the Colorado legislature modified the *Colorado Pure Food and Drug Law* by passing legislation (HB 18-1295) that allowed hemp as an ingredient in food, dietary supplements, and cosmetics. In 2019, legislation (SB 19-240) was passed, which standardized the fees paid by industrial hemp manufacturers to CDPHE to be one hundred dollars for an application fee and three hundred dollars as a registration fee, and clarified that counties or municipalities could not adopt additional or conflicting “food production” requirements for industrial hemp manufactures within their jurisdictions.

In 2019, CDPHE participated in the Colorado Hemp Advancement & Management Plan (CHAMP) initiative, specifically engaged in the manufacturing, processing, and testing stakeholder groups. An output of that initiative was to, through a stakeholder process, determine and adopt specific requirements for the hemp industry based on some of the industry uniqueness these products present.

In May 2021, CDPHE issued a policy clarifying the chemical modification or conversion of any naturally occurring cannabinoids from industrial hemp is not allowed. The policy considers such modification as non-compliant with the statutory definition of “industrial hemp product.” This included any process that converts an industrial hemp cannabinoid, such as CBD isolate, into delta-9 THC, delta-8 THC, delta-10-THC, or other tetrahydrocannabinol isomers or functional analogs.

### *II. CDPHE Rulemaking Authority*

CDPHE has been the long-standing agency with regulatory responsibility over the production of food, dietary supplements, and cosmetics under sections 25-5-401 *et.seq.*, C.R.S. With the passing of HB 18-1295 and the allowance of hemp as an ingredient in a food, dietary supplements, or cosmetics, existing statute sections, 25-5-420(1) and 25-5-421(1)(a), C.R.S., respectively provide for the authority to both develop regulations for the enforcement of the *Colorado Pure Food and Drug Law* and for inspections of those facilities/operations subject to the statute and regulations, including operations engaged in the production of industrial hemp products. Additionally, SB 22-205 in section 25-5-426(4)(e), C.R.S., provided for:

*“In addition to any powers listed in this section, the department may promulgate rules to prohibit, within final product made available for sale, the chemical modification, conversion, or synthetic derivation of intoxicating tetrahydrocannabinol isomers, including delta-8,*

*delta-9, and delta-10, or other intoxicating tetrahydrocannabinol isomers that originate from industrial hemp or may be synthetically derived.”*

CDPHE has also been the long-standing agency with regulatory responsibility over chemical, bacteriological, and biological laboratories under section 25-1.5-1(f), C.R.S. Under this authority, the Department has established regulations for hemp testing laboratories, *Hemp Testing Laboratory Certification* 5 CCR, 1005-5.

### *III. Regulated Hemp Product Manufacturer Registration Structure*

Hemp product manufacturers are required to obtain a *Colorado Wholesale Food Manufacturers Registration*, § 25-5-426(4)(a), 4(b)(IV), C.R.S. Registrations are renewed annually each July.

### *IV. Regulated Hemp Product Rules*

In Colorado, all regulated hemp products are subject to the *Colorado Wholesale Food, Industrial Hemp and Shellfish Regulations* 6 CCR 1010-21 (Hemp Rules). These regulations are an incorporation by reference of the 21 Code of Federal Regulations (C.F.R.) parts 100-111, 113-170, and 172-190. Specifically, Part 111, *Current Good Manufacturing Practice in Manufacturing, Packaging, Labeling, or Holding Operations for Dietary Supplements* and Part 117, *Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based Prevention Controls for Human Food*. Additional specific requirements for testing, labeling, record keeping, waste management, and transportation were added for hemp product manufacturers to address the unique aspects associated with these products. Additional potentially relevant requirements and restrictions are summarized below.

- *Tax Requirements*

Industrial hemp products are subject to the general state sales tax of 2.9% plus applicable local sales taxes.

- *Tracking Requirements*

While tracking requirements of seed-to-sale are not applicable to hemp products, hemp manufacturers are required by 6 CCR 1010-21, section 21.7(G)(4) to use a code or numbering system for tracking, recalls and trace forward/trace back activities.

- *Testing Requirements*

The rules require hemp product manufacturers to comply with testing processes and standards including but not limited to required testing for all hemp products. All hemp products are subject to the following testing categories: microbials, mycotoxins, residual solvents, heavy metals, pesticides, and cannabinoid concentration. Test results must be documented via certificate of analysis and may be required on the label. Testing must be performed by a CDPHE-certified laboratory in accordance with 5 CCR 1005-5.

- *Manufacturing and Processing Requirements*

The Hemp Rules require hemp product manufacturers to follow all the requirements imposed on manufacturers of traditional foods or dietary supplements, along with additional testing, labeling, and waste management requirements. Operations manufacturing only “unfinished industrial hemp product” as defined by 6 CCR 1010-21 21.4(24) must be registered with the Department and can only transfer the product to another industrial hemp product manufacturer registrant.



- *Packaging and Labeling Requirements*

Hemp manufacturers are required by 6 CCR 1010-21, section 21.7(G)(2-6) to label products in accordance with the 21 CFR 101 “*Food Labeling*” subparts A-G and to ensure labels identify, in milligrams, the THC content or any isolated cannabinoid content per serving and per container, or when using a broad of full spectrum product identify the total amount in milligrams. In addition, hemp manufacturers must also comply with a patchwork of state regulations, each with a wide-range of varying requirements for labeling, warnings, testing, registration, technical definitions, and product controls, among others. As with marijuana products, labeling or packaging cannot make any misleading or false statements, or make any claim about health, physical benefits, or that the product is intended to diagnose, cure, mitigate, treat, or prevent disease.

- *Sales Requirements and Limitations*

Not applicable to hemp products. Unlike marijuana which is sold on an intrastate basis, only in state-licensed dispensaries, hemp products are widely sold throughout the country, and are frequently found on the shelves of grocery stores, pharmacies, dietary supplement stores, gas stations as well as direct-to-consumer via the internet. There are also generally no age restriction requirements.

## **Regulated Marijuana Legal Authority**

### *1. Brief History Regulated Marijuana in Colorado*

In 2000, Colorado voters passed Amendment 20 to the Colorado Constitution, creating an affirmative defense for the use of medical marijuana and thereby allowing the production, possession, and use of medical marijuana. *See* Colorado Const. Art. XVIII, sec. 14. Nearly a decade later, in 2010, the General Assembly adopted the Medical Marijuana Code, sections 12-43.3-101 *et seq.*, C.R.S., and charged the Department of Revenue Medical Marijuana Enforcement Division with regulation and enforcement. The Department of Revenue Medical Marijuana Enforcement Division, in response, adopted the initial Medical Marijuana Rules at 1 CCR 212-1.

In 2012, Colorado voters passed Amendment 64 to the Colorado Constitution, which legalized the possession of marijuana and created a commercial marijuana market. *See* Colorado Const. Art. XVIII, sec. 16. Amendment 64 also mandated that industrial hemp and marijuana be regulated separately. The following year, in 2013, the General Assembly adopted the Retail Marijuana Code, section 12-43.4-101 *et seq.*, C.R.S., and charged the Department of Revenue Marijuana Enforcement Division (“MED”)<sup>4</sup> with the regulation, licensing, and enforcement of commercial marijuana businesses and the individuals working within those businesses. The MED, in response, adopted the initial Retail Marijuana Rules at 1 CCR 212-2. In 2014, the Department of Revenue MED began issuing commercial marijuana business licenses, owner licenses, and employee licenses.

In 2019, following an extensive sunset review, the General Assembly consolidated the Medical Marijuana Code and Retail Marijuana Code into a single Colorado Marijuana Code, sections 44-10-101 *et seq.*, C.R.S. (“*Marijuana Code*”), bringing the codes into as much alignment as possible between medical marijuana and retail marijuana. In response, the Department of Revenue MED consolidated the existing medical marijuana rules and retail marijuana rules into a single rule series - the Regulated Marijuana Rules at 1 CCR 212-3 (“*Marijuana Rules*”).

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<sup>4</sup> The Medical Marijuana Enforcement Division was adapted into the Marijuana Enforcement Division.



In May of 2021, the MED issued Industry Bulletin 21-07 regarding the production/use of chemically modified or synthetically derived THC isomers from industrial hemp precursors. The bulletin responded to inquiries the MED received from stakeholders and licensees and clarified that industrial hemp product is not permitted to be further processed or extracted either before or after inclusion in a marijuana product, including processes to convert industrial hemp product, such as CBD isolate, into delta-9 THC, delta-8 THC, delta-10-THC, or other tetrahydrocannabinol isomers or functional analogs. The bulletin further reminded licensees that before taking possession of an industrial hemp product the licensee must verify the industrial hemp product passed all required tests.

## *II. State Licensing Authority Rulemaking Authority*

The State Licensing Authority was created for the purpose of “regulating and controlling the licensing of the cultivation, manufacture, distribution, sale, and testing of regulated marijuana.” § 44-10-201(1)(a), C.R.S. The legislature further delegated to the State Licensing Authority the power to promulgate rules for the proper regulation and control of the cultivation, manufacture, distribution, sale, and testing of regulated marijuana and regulated marijuana products and for the enforcement of the Marijuana Code. § 44-10-202(1)(c), C.R.S. This rulemaking authority is divided into permissible rulemaking, which may be undertaken, and mandatory rulemaking, which must be accomplished. § 44-10-203(1) and (2), C.R.S. The State Licensing Authority also has the discretion to make rules on “such other matters that are necessary for the fair, impartial, stringent, and comprehensive administration” of the Marijuana Code. § 44-10-203(k), C.R.S.

## *III. Regulated Marijuana Business Licensing Structure*

Regulated marijuana businesses must obtain licenses from both the state and the local jurisdiction where the business intends to operate. § 44-10-313(2)(a) and (b), C.R.S. There are seven (7) types of medical marijuana business licenses: medical marijuana store, medical marijuana cultivation facility, medical marijuana product manufacturer, medical marijuana testing facility, medical marijuana transporter, medical marijuana business operator, and medical marijuana research and development. § 44-10-401(2)(a), C.R.S. Conversely, there are eleven (11) types of retail marijuana business licenses: retail marijuana store, retail marijuana cultivation facility, retail marijuana product manufacturer, retail marijuana testing facility, retail marijuana transporter, retail marijuana business operator, accelerator cultivator, accelerator manufacturer, marijuana hospitality business, retail marijuana hospitality and sales business, and accelerator store. § 44-10-401(2)(b), C.R.S. Owners and employees that work directly with marijuana or the inventory tracking system must also obtain an individual license. § 44-10-313(4), C.R.S.

## *IV. Regulated Marijuana Product Rules*

In Colorado, all regulated marijuana is subject, under the Colorado Constitution, the Colorado Marijuana Code and the tax statutes in Title 39 to taxation, tracking, and testing, in addition to other requirements intended to protect the public health and safety and prevent diversion of marijuana. Colo. Const. Art. XVIII sec. 16(5)(a); § 44-10-203, C.R.S.; § 39-28.8-101, C.R.S., *et seq.*

- *Tax Requirements*

Medical Marijuana is subject to Colorado’s standard 2.9% retail sales tax. Retail (adult use) Marijuana is subject to a retail marijuana special sales tax and a retail marijuana excise tax. §§ 39-28.8-202 and 39-28.8-302, C.R.S. Retail marijuana sales tax is imposed upon every sale of retail marijuana and retail marijuana products at a rate of fifteen percent. § 39-28.8-201, C.R.S. Retail marijuana excise tax is collected on the first sale or transfer of unprocessed retail marijuana from a retail marijuana cultivation facility to a retail marijuana products manufacturer to another retail marijuana business, such as a retail marijuana store or retail marijuana hospitality and sales business, at the rate of fifteen percent of the average market rate<sup>5</sup> of unprocessed retail marijuana if the transfer is between affiliated retail marijuana business licensees. § 39-28.8-302(1)(a)(I), C.R.S. If the sale or transfer is between unaffiliated retail marijuana businesses then the rate is fifteen percent of the contract price for unprocessed retail marijuana. § 39-28.8-302(1)(a)(I), C.R.S.

- *Tracking Requirements*

The Marijuana Code and Marijuana Rules require that regulated marijuana be tracked from seed-to-sale, meaning marijuana must be tracked from either the seed or immature plant stage until the regulated marijuana is sold to a patient through a medical marijuana store, or to a customer through a retail marijuana store or a retail marijuana hospitality and sales business. The tracking of marijuana from seed-to-sale by use of an inventory tracking system is required to ensure that regulated marijuana is not sold or otherwise transferred outside of the regulated marijuana industry licensed in Colorado.

- *Testing Requirements*

The rules require regulated marijuana testing facilities to comply with testing processes and standards including but not limited to standards for testing category certification and required testing for all regulated marijuana. All regulated marijuana is subject to the following test categories: microbials, water activity, mycotoxins, residual solvents, elemental impurities, pesticides, and potency. Test results must be documented in the inventory tracking system and may be required on the label.

- *Manufacturing and Processing Requirements*

The Marijuana Rules impose restrictions on product manufacturers addressing permitted and prohibited manufacturing processes and testing requirements. In accordance with section 44-10-203, the Marijuana Rules prohibit certain solvents, ingredients and additives from being used in the manufacturing process. Further, the rules mandate how test samples are created and transferred to regulated marijuana testing facilities and how products are packaged and transferred to stores for sale.

- *Packaging and Labeling Requirements*

The Marijuana Rules have specific packaging and labeling requirements for transfers between Regulated Marijuana Businesses, transfers to marijuana testing facilities and transfers from a Regulated Marijuana Business to a consumer or patient. All transfers from a Regulated Marijuana Business to a consumer or patient must be in a child resistant container or exit package. All packages must comply with labeling requirements, which include that they may not make any misleading or false statements, or make any claim about health or physical benefits.

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<sup>5</sup> The average market rate (AMR) is established by the Department of Revenue Taxation Division.

- *Sales Requirements and Limitations*

There are several requirements and limitations related to sales of regulated marijuana and which vary depending on whether the marijuana is medical or retail. Foremost, retail marijuana may only be sold to a customer who is 21 years of age or older and medical marijuana may only be sold to an individual registered with the Department of Public Health and Environment as a medical marijuana patient. Retail marijuana purchases are limited to 1 ounce of retail marijuana or 100 milligrams of THC for retail marijuana products. A single serving size of retail marijuana product may not exceed 10 milligrams of THC.

## **TASK FORCE RECOMMENDATIONS**

*The recommendations contained herein are those of non-agency Task Force members. Agencies responsible for facilitating and supporting the work of the Task Force (CDA, CDPHE, and DOR MED) have coordinated to provide relevant feedback, attached as an [Agency Supplement](#) to this report.*

### **Definitions**

- Potentially Intoxicating Compound
- Total THC
- Serving size \*CDPHE addressing/making this recommendation
- Synthetic cannabinoid
- Novel cannabinoid

*Changes in terminology:*

- **Potentially Intoxicating Compound:** The Task Force recommends defining the term “Potentially Intoxicating Compound.” Such terms should be defined to capture potentially intoxicating cannabinoids, as well as other potentially intoxicating constituents of hemp, when isolated and/or synthesized to create a distinct “article” with the intent to use such article as an ingredient. Certain cannabinoids are likely to be intoxicating at certain levels; similarly, research is scarce as to the intoxicating potential of other compounds derived from hemp, when isolated and/or synthesized and concentrated into a distinct “article.” The law should direct the agencies [and standing scientific committee] to evaluate such Potentially Intoxicating Compounds as more scientific research and data becomes available. The law should define a standard for intoxication and that standard should be applied to isolated, synthesized cannabinoids or other compounds which are distinct “articles,” and should specifically exclude (i) [Non-Intoxicating Cannabinoids] and (ii) cannabinoids or compounds when comprising a naturally derived full spectrum hemp extracts or broad spectrum hemp extracts.
- **Total THC:** The Task Force recommends the final definition of Total THC be left to regulation. As we have seen, the calculation for total THC will need to be adjusted as science evolves and amended more quickly than statutory changes allow. Further, federal legislation and/or regulation or enforcement guidance may impact this definition in the future. A regulatory definition will allow for more flexibility as we continue to learn about THC and as relevant federal regulation evolves.

- **Serving size:** The Task Force recommends CDPHE make a recommendation for definition based on existing consumer protection laws and federal regulations.
- **Synthetic Cannabinoid:** The Task Force recommends the final definition of “Synthetic Cannabinoid mean a cannabinoid like compound that was produced using chemical synthesis, chemical modification, or chemical conversion (including in-vitro biosynthesis and bioconversion) of any method or type except for those produced through the decarboxylation of natural occurring cannabinoids from their acidic form.
- **Novel Cannabinoid** means any cannabinoid that has not been assessed by MED/CDPHE, or CDPHE in coordination with MED for safety and intoxication profiles.

## **Classification of Cannabinoids and Compounds**

The Task Force recommends that the legislature create classifications of cannabinoids (and other cannabis-derived compounds) to distinguish under what circumstances, if any, such cannabinoids and compounds may be used in manufacturing of Industrial Hemp Products.

Such classifications are recommended to include:

1. Non-Intoxicating Cannabinoids
2. Potentially Intoxicating Compounds
3. Intoxicating Cannabinoids

### *Non-Intoxicating Cannabinoids*

The Task Force recommends these cannabinoids may be freely used as ingredients in the manufacture and sale of Industrial Hemp Products, in accordance with the potency and other requirements recommended herein and as required by CDPHE.

Such hemp derivatives and cannabinoids, including their acid forms and varin analogs, include:

- Full spectrum hemp extract
- Broad spectrum hemp extract
- Cannabidiol (CBD)
- Tetrahydrocannabivarin (THCV)
- Cannabichromene (CBC)
- Cannabicitran (CBT)
- Cannabicyclol (CBL)
- Cannabielsoin (CBE)
- Cannabigerol (CBG)
- Cannabidivarin (CBDV)
- Cannabinol (CBN)

### *Potentially Intoxicating Compounds*

The Task Force recommends these compounds not be allowed to be manufactured within Colorado or incorporated into Industrial Hemp Products for sale within Colorado, except as provided for in the Safe Harbor provisions hereof (if at all), unless and until these cannabinoids are further assessed by the

MED/CDPHE [and a standing scientific committee] and any (if at all) exceptions are made on specific cases and scenarios:

- Novel Cannabinoids which are not already deemed Non-Intoxicating Cannabinoids
- Non-phytocannabinoids

### *Intoxicating Cannabinoids*

The Task Force recommends these cannabinoids shall not be allowed to be manufactured within Colorado or incorporated into Industrial Hemp Products for sale within Colorado, except as provided for in the Safe Harbor provisions hereof (if at all), unless and until these cannabinoids are further assessed by the MED/CDPHE [and a standing scientific committee]:

- Delta-10 tetrahydrocannabinol and isomers;
- Delta-9 tetrahydrocannabinol and isomers;
- Delta-8 tetrahydrocannabinol and isomers;
- Delta-7 tetrahydrocannabinol and isomers;
- Delta-6a, 10a tetrahydrocannabinol and isomers; and
- Exo-tetrahydrocannabinol
- Metabolites of THC including but not limited to:
  - 11-hydroxy-THC
  - 3-hydroxy-THC
  - 7-hydroxycannabidiol
- Hydrogenated forms of THC including but not limited to:
  - HHC
  - HHCP
  - HHCH
- Synthetic forms of THC including but not limited to:
  - Dronabinol
- Ester forms of THC including but not limited to:
  - Delta-8 THCO-acetate
  - Delta-9 THCO-acetate
  - HHC-O-acetate
- Varin forms of THC including but not limited to: (Excluding Delta-9-THCV)
  - Delta-8-THCV
- Alkyl analogues C4 or higher including but not limited to:
  - Delta- 8 THCP,
  - Delta-9 THCP,
  - Delta-8 THCJD,
  - Delta-9 THCJD,
  - Delta-8 THCH,
  - Delta-8 THCB
  - Delta-9 THCB

**Please note, there are dissenting opinions to this Task Force recommendation, available in the [Dissenting Opinion Index](#).**

- [Dissent of Kyle Ray \(pg. 27\)](#)

## **THC in Hemp Products**

Colorado should enact limits on the milligrams of THC that are permissible for hemp products based on existing safety data. These limits should be low enough to effectively prohibit the sale of intoxicating products to the public to address the public safety issues that they present. Potential limits to be established in two phases:

- Initially, THC limits should be set high enough to avoid unintentionally capturing non-intoxicating hemp products and provide producers of non-intoxicating products with sufficient notice to comply with approvals for THC levels after those regulations have been finalized.
- Subsequently, the limits should be more conservative and prohibit products that would reasonably be assumed to be intoxicating. These new limits should only be imposed after the MED/CDPHE, or CDPHE in coordination with MED, finalize regulations that create approvals and a reasonable transition period. MED and CDPHE should have rulemaking authority to amend the proposed limits to serving size and containers as well as ratios of Non-intoxicating Cannabinoids to Intoxicating Cannabinoids (i.e. CBD:THC) along with making other timely changes to regulations based on evolving science to be protective of public health.
- Those initial limits would be included in statute, with a regulatory authority for MED/CDPHE, or CDPHE in coordination with MED to adjust those limits based on scientific findings on intoxication levels of intoxicating cannabinoids.
- Notably, full spectrum hemp products will often contain at least 1.0 - 2.0 mg THC per serving, but are rendered non-intoxicating given the ratio considerations noted below.
- Dietary supplements – including tinctures, capsules and other similar product types – are normally and conventionally sold across the country in volumes exceeding 30-60 servings per container. Restricting non-intoxicating hemp products to container limits comparable to marijuana products (i.e. 10 servings per container) would adversely impact hemp companies in reconfiguring packaging and being unable to create universal packaging and labeling for products sold throughout the country. Given there are no purchase limits on hemp products, any container limits would also be easily circumvented by consumers simply purchasing additional units.
- There has been initial scientific evidence presented to the task force indicating that the intoxicating effect of THC is mitigated and counteracted when combined with substantial potencies of CBD – such evidence indicates a ratio of 15:1 CBD:THC may be an appropriate standard to guard against intoxication. This ratio requirement would prevent the ability for manufacturers to incorporate isolated and highly potent THC, with little to no CBD, to create a product intended to intoxicate consumers.
- Given the foregoing considerations concerning potency limits of THC per serving when coupled with the foregoing ratio considerations, and the foregoing considerations concerning potential container limits, the Task Force recommends that a milligram potency limit *per serving* coupled with a CBD:THC ratio is currently sufficient to guard against intoxicating hemp products from being sold within Colorado and no container limit is recommended at this time. Moreover, the task force recommendations give the agencies the tools necessary to adapt and change regulations, if needed.
- With respect to initial limits, the Task Force recommends that the legislature adopt the following standard for finished hemp products to be sold in Colorado:
  - No greater than 2.5 mg THC per serving; *AND*

- o The formulation shall contain a ratio of CBD:THC of greater than or equal to 15:1 CBD:THC;
- o The foregoing limitations do not apply when a finished hemp product complies with the definition of broad spectrum (under 0.01% THC), and/or exclusively contains one or more Non-Intoxicating Compounds (i.e. CBD isolate; CBG isolate; CBN isolate); provided, however, that CBN shall be restricted to no more than 25 milligrams per serving;
- o No container limits;
- o Non-intoxicating compounds do not need to meet these requirements. Hemp products that contain only non-intoxicating compounds are not subject to these limitations. It is also important to note that the definition of THC includes all of its isomers. Hemp companies will also be able to use other potentially intoxicating compounds if they can prove that those products are considered non-intoxicating by review of the standing scientific committee.

Note:

- All these limits would be applicable to finished products in addition to the federally established 0.3% standard applicable to hemp's exemption from the controlled substances act (or hemp's status as a legal agricultural crop and not a controlled substance).
- Additionally, the state should clarify and promote awareness of the existing state and local laws and requirements for businesses in general. There are requirements already in place today that apply to different businesses, regardless of any recommendations made by this Task Force or other legislative or regulatory actions that, if enforced, would help address many of the active public safety issues.
  - o For example, companies that work with solvents currently must undergo a construction permit and an air permit process. Existing divisions of CDPHE, such as the air pollution control division ([APCD](#)) are already responsible for making those assessments and have processes in place, including exemptions for small businesses. It is pertaining to public health that vapors from solvents are addressed to ensure employee safety, which is why these rules are in place.

**Please note, there are dissenting opinions to this Task Force recommendation, available in the [Dissenting Opinion Index](#).**

- [\*Dissent of Truman Bradley & Brian Higgins \(pg. 32\)\*](#)
- [\*Dissent of Garrett Graff and John Harloe Concerning Regulatory Authority \(pg. 35\)\*](#)
- [\*Dissent of James Granger \(pg. 39\)\*](#)

## **Labeling and Marketing Recommendations**

The Task Force recommends that the legislature should direct CDPHE, in coordination with MED, to promulgate regulations for labeling Industrial Hemp Products which distinguish those products which contain synthetic/synthesized cannabinoids from those which only contain naturally occurring cannabinoids.



The Task Force further recommends that Industrial Hemp Products shall not be marketed as, or promoting, containing THC or other Potentially Intoxicating Cannabinoids. Notwithstanding the foregoing, the Task Force recommends that CDPHE promulgate regulations requiring a notice statement (versus a warning statement) that such product includes THC and other Potentially Intoxicating Compounds. Nothing herein shall preclude manufacturers from including potency and other required disclosures of content of THC and Potentially Intoxicating Cannabinoids.

## **Approval of Certain Non-Intoxicating Hemp Products**

The MED/CDPHE, or CDPHE in coordination with MED shall create a process whereby manufacturers of Industrial Hemp Products that exceed permissible levels of THC or other intoxicating compounds can obtain approval for sale in Colorado, based upon a reasonable determination that the product is safe and non-intoxicating. This process should be based upon FDA standards, prioritizing those most important aspects to protect public health and safety, including information such as:

- Product form and method of consumption/delivery;
- A description of the manufacturing process;
- Whether the product's manufacturing process alters the cannabinoid profile from the natural plant;
- Evidence demonstrating that the product will not cause intoxication based upon legitimate scientific evidence about the products method of consumption and cannabinoid profile;
- Whether the product has a GRAS or self-GRAS determination or similar safety studies that would be deemed by public health experts as sufficient to demonstrate that a product is safe for consumption; and
- Marketing, testing, and labeling information relating to the product.

Additionally, producers would be able to provide information for the MED/CDPHE's consideration outside the narrow scope of requirements. The MED/CDPHE would also consider information submitted by other applicants, creating efficiency and increased opportunity. Finally, statute should expressly exempt the information submitted pursuant to this process from CORA requests and should be further subject to C.R.S. 6-1-111(2).

*Note:* There are many existing state and local laws and regulations specific to hemp products and applicable to all foods and dietary supplements that would help mitigate existing risks to public safety if enforced appropriately. Compliance with these laws and regulations to the extent possible should be expected until more narrowly tailored processes are developed, including compliance with process safety, product safety standards like cGMP and other consumer protection laws.

## **Standing Scientific Committee**

The Task Force recommends that the legislature consider (i) a newly established standing scientific committee or (ii) an expansion of scope of an existing committee, such as the Retail Marijuana Public Health Advisory Committee, where such committee is enabled to assist the agencies in the ongoing evaluation of scientific data and research related to cannabinoids investigation and the evaluation of cannabinoids for their safety profiles and intoxicating potential, including the appropriate classification of



cannabinoids (based on the classifications recommended herein). Such a standing scientific committee should be primarily composed of representatives of academia, as well as representatives of hemp and marijuana industries, applicable regulatory agencies, and other relevant stakeholders.

## **Assessment of Novel Cannabinoids**

The MED/CDPHE, or CDPHE in coordination with MED will establish a process for the assessment of Novel Cannabinoids to determine whether they are non-intoxicating when consumed. Novel Cannabinoids determined to be:

- Non-intoxicating shall be considered a permitted ingredient in food, dietary supplements, and other hemp products in Colorado.
- Potentially intoxicating compounds (at certain dosages) will be treated similarly to THC and may be used as a permitted ingredient provided it falls below established levels or meets the standards set forth in the approval process.
- Intoxicating compounds: at any level will be prohibited entirely as ingredients, unless otherwise approved in individual instances by companies. Through the approval process, companies can show that a product is not intoxicating in its totality.

*In complementing the policy recommendations, the Task Force suggests that the legislature give authority to the agencies, to work in coordination with the standing scientific committee to establish an assessment process for individual products, Intoxicating Compounds and Novel Cannabinoids.*

- The process here should follow standards for ingredients in food and dietary supplements established by the FDA, which are consistent with the topics outlined in the approval process described above. This should include consideration of any determination of whether that cannabinoid has been approved as GRASs, self-GRAS, or NDIN. In addition, materials prepared in anticipation of a submission should be given due consideration because the implications of the drug preclusion act have prevented many submissions, that would likely be approved, from moving forward.
  - Notwithstanding the foregoing, because FDA will not presently recognize the permissibility of any cannabinoids, the agencies and standing scientific committee shall not be *strictly* bound to FDA standards in evaluating such compounds, although the integrity of such standards should certainly be maintained as best as possible without FDA's direct involvement.
- The law should commence with the initial position that those compounds deemed by the Task Force as Non-Intoxicating Cannabinoids (see Definitions section) should be considered non-intoxicating under the safeguards and limitations established in this report.
  - MED/CDPHE, or CDPHE in coordination with MED, is authorized to reconsider the classification for these cannabinoids and/or establish amount limitations to ensure products containing such cannabinoids are non-intoxicating.
  - Any reconsideration should not begin until after the establishment of regulations governing THC and the approval process outlined herein.
- No Novel Cannabinoid approvals until after the process for assessment is created.

- The MED/CDPHE, or CDPHE in coordination with MED should consider relevant information from previous submissions or publicly available information that meets scientific thresholds.
- Information submitted pursuant to this section by companies should be protected from CORA

## **Synthetic Cannabinoids**

The Task Force recommends that statutory changes should be made to ensure MED/CDPHE, or CDPHE in coordination with MED, have sufficient authority to create approval processes on the production and sale of synthetic cannabinoids in Colorado. All natural and synthetic cannabinoids should be subject to the Novel Cannabinoids process outlined above to be assessed for safety and intoxication. Those cannabinoids determined to be non-intoxicating should be permitted ingredients in Industrial Hemp Products.

## **Timeline of Implementation of Framework**

The Task Force recommends the following timeline would allow for both the state and companies to have enough time to build a framework, and comply with future legislation and regulations:

- Statute with initial limits and is signed by Governor by (estimated May 2023)
  - o Statute mandates MED/CDPHE, or CDPHE in coordination with MED to create regulatory limits, prohibitions, and authorizations related to the recommendations in this report for THC by January 1, 2024
  - o Statute mandates the MED/CDPHE, or CDPHE in coordination with MED create an approval process for ingestible consumable Industrial Hemp Products that fall outside of those limits by January 1, 2024.
  - o Statute mandates the MED/CDPHE, or CDPHE in coordination with MED create a process to assess Novel Cannabinoids, Potentially Intoxicating Compounds and Intoxicating Cannabinoids by July 1, 2024.
- MED/CDPHE, or CDPHE in coordination with MED adopts regulations for THC compound limits, other recommendations, and approval processes by January 1, 2024, but products are not required to comply with these two standards until July 1, 2024.
  - o Similarly, the MED/CDPHE, or CDPHE in coordination with MED will adopt regulations for novel cannabinoids and intoxicating compounds assessment by July 1, 2024, but products would not be required to comply until January 1, 2025.

## **Enforcement and Education; Appropriations**

Without active enforcement, the policies outlined above will not address the active and ongoing public safety issue. The Task Force recommends the state needs to allocate sufficient funding to enforce against in-state and out-of-state actors violating the law and placing public safety at risk. A system must be established for members of the public to report unsafe or intoxicating products, such as adverse reactions and false or misleading labeling claims. The initial funding provided to the AG's Office must be maintained and expanded upon to ensure there are staff to conduct the necessary enforcement to protect public safety. Should the AG Office recommend in the future that it needs additional funding in the future,

the legislature should take appropriate steps to ensure such funding is allocated to continue to protect public safety.

Additionally, funding should be provided to CDPHE and MED primarily for the enforcement of these proposed regulations, as well as existing regulations, and secondarily to develop and create resources to educate Coloradans about the health risks posed by intoxicating hemp products and specific messaging for parents about the ability for youth to purchase these products online. Just like marijuana products, public messaging is essential to educate youth about the dangers posed by intoxicating hemp products and ensure they are kept away from children.

Furthermore, the Task Force believes that compliance inspections, technical assistance and when necessary enforcement are appropriate elements of this regulated industry. Current registration fees are not adequate to support the necessary compliance activities, enforcement provisions are outdated and the penalty provisions are limited and do not function as an adequate deterrent to willful non-compliance.

Though the Task Force is not equipped to determine specific penalties or funding appropriations, the Task Force supports a modernization of the enforcement provisions that align with other environmental health programs at CDPHE. Correspondingly, the Task Force recommends that CDPHE make recommendations to the legislature of the additional funding and penalties necessary to support the necessary inspections, compliance and related support, as determined by CDPHE.

## **Manufacturing Safe Harbor**

- The Task Force recommends that the legislature establish a “safe harbor” for manufacturers to manufacture finished industrial hemp products which do not meet the finished product requirements required to be sold in Colorado, but which may be lawfully sold in another state. The Task Force recommends that manufacturers maintain recordkeeping in accordance with CDPHE regulations sufficient to distinguish between batches of products intended for sale in Colorado versus those intended for sale in other states.

*E.g. The Task Force recommends that a finished full spectrum hemp product sold in Colorado contain no more than 2.5 Total THC and have a ratio of greater than or equal to 15:1 CBD:THC. Conversely, the State of Minnesota allows for the sale of finished hemp products up to 5 mg THC. This safe harbor would allow for finished product manufacturers in Colorado to manufacture 5 mg THC products, which are to be sold in Minnesota, but not in Colorado.*

- This safe harbor is not intended to allow for the bulk manufacturing of Intoxicating Compounds for export to other states, except for the exception noted below. Colorado-based manufacturers may freely export approved Novel Cannabinoids, in bulk or in finished products, which Colorado deems lawful to be sold within the state.
- As an exception to the foregoing prohibition on manufacturing Intoxicating Compounds, the Task Force recommends that Colorado-based manufacturers shall be permitted to manufacture delta-8 THC and hexahydrocannabinol strictly as an in-process material for use in the process of making a Non-Intoxicating Cannabinoid (e.g. CBN). Such in-process material may be transferred between CDPHE-registered facilities.

- The Task Force recommends that the legislature consider implementing requirements such as inventory tracking, surveillance, and/or recordkeeping requirements, as necessary, which exceed normal recordkeeping requirements in accordance with good manufacturing practices (GMPs) and existing CDPHE regulations, to apply to the foregoing in-process materials which exceed WIP (5% THC, as presently defined by CDPHE regulation).
- Notwithstanding the inclusion of delta-9 THC in the classification of “Intoxicating Cannabinoids,” manufacturers shall be able to manufacture hemp products which contain THC, subject to the finished products requirements (potency and ratio) set forth herein.

**Please note, there are dissenting opinions to this Task Force recommendation, available in the [Dissenting Opinion Index](#).**

- [\*Dissent of Kyle Ray, \(pg. 27\)\*](#)
- [\*Dissent of Garrett Graff and John Harloe Concerning Safe Harbors, \(pg. 36\)\*](#)

## CONCLUSION

The Intoxicating Hemp Task Force recognizes the trust placed in it by the Colorado Legislature. We believe we have successfully fulfilled our mission. We acknowledge the extremely valuable input and guidance provided by representatives of CDPHE, CDA, MED, DOR, the AG’s office, and others. In addition, the collaboration of stakeholders who were not appointed to the Task Force was essential to the deliberative process. We thank you all.

The Task Force focused primarily on issues that needed priority action due to their potential risks to public health and safety. Addressing every potential problem and solution within this complex and dynamic industry and regulatory environment will be an ongoing challenge for Colorado’s governmental bodies and stakeholders. Colorado’s longtime leadership in hemp and marijuana is a known fact across the country. Ensuring product safety and protecting public health is key to maintaining the state’s position as an inspirational framework for cannabis. In the end, the Task Force’s recommendations support this vision and will build a significantly stronger framework to ensure a vital and resilient industry.

## **DISSENTING OPINIONS**

### **Dissent Of Alan Lewis**

The Intoxicating Hemp Task Force has presented its consensus vision for regulation of cannabis compounds in the near term. The specific product safety and public health issues raised by synthetic and novel intoxicants have largely been settled in a way that allows Colorado entities to remain competitive within the national hemp and cannabis economy and continue to invest in innovation.

What follows is not necessarily a dissenting opinion; it lists a number of large issues that are outside the scope of the Task Force's mandate or, although discussed, were outside the capacity of an industry stakeholder group to address comprehensively.

Nevertheless, the Colorado Legislature may need to take a wider view of hemp and cannabis regulation in light of the following:

1. Federal agencies are tolerating hemp and cannabis products as long as they do not cause adverse health events. However, supportive regulation of hemp and cannabis is not forthcoming.
2. The hemp and cannabis industry must harmonize manufacturing and marketing practices with federal regulations for food and dietary supplements to avoid antagonizing federal regulators.
3. Federal regulations allow for the use of specific chemicals and chemical processes to produce food ingredients. The maximum allowed residues of the allowed chemicals is often measured in parts per billion, and those ingredients usually comprise less than one percent of the finished product.
4. It will fall to individual states, in collaboration with each other, to establish a common national regulatory framework to promote interstate trade in safe products that protects public health. Colorado should lead this effort by seeking trade compacts with other states and harmonizing regulatory frameworks.
5. Previously unknown sources of cannabinoids, created using technologies such as gene editing of seeds, crops, soil, and microorganisms, are already changing the regulatory landscape and economics of hemp and cannabis. Most of what the current Task Force is solving for will have to be addressed again in the future.

## **Dissent Of Kyle Ray**

### **Summary:**

- 1.) Legislators should classify all cannabinoids as potentially intoxicating
  - Exemptions should be made for CBD, CBDA, CBG, CBGA, CBDV, CBDVA
  - Intoxication should be based on dosage not specific cannabinoids
  - Recommendations must stay consistent for Delta-9 THC and other associated isomers
- 2.) Legislators should expand the temporary manufacturing safe harbor status to include allowances for out-of-state sales for potentially intoxicating THC isomers for labs that meet the criteria outlined by the Taskforce
  - Allowances for export of potentially intoxicating THC isomers will protect public health, promote scientific research, and protect the hemp industry in the state of Colorado
  - A ban on export of potentially intoxicating THC isomers while allowances for the manufacture of these cannabinoids is tantamount to a total prohibition for the hemp industry and will result in many companies leaving the state of Colorado

### **Technical Analysis:**

This dissenting opinion focuses on two primary points proposed by the taskforce. The first point is regarding the section titled, “Approaches to Defining and Determining Intoxication”. This section states that synthetic THC isomers such as Delta 8 THC are inherently psychoactive regardless of their dose in a finished product. The taskforce recommends classifying these isomers as “intoxicating cannabinoids” when in fact intoxication is the result of dosage and I would argue that a cannabinoid cannot be “inherently intoxicating”. The second point is with regards to the section titled, “Temporary Manufacturing Safe Harbor”. I am in full agreeance with the requirements needed to achieve and maintain a temporary safe harbor status. I am also in full agreeance with the taskforce in that there should be allowances for the manufacture and storage of synthetic THC isomers. However, where my opinion differs is regarding the out of state sale of these synthetic THC isomers. I will argue in this opinion that creating an allowance for the export of synthetic THC isomers out of the state of Colorado will protect public health in both the short and long term while also minimizing the economic impact that these rules will have on the Colorado hemp industry.

The notion that any specific cannabinoid is inherently intoxicating is an untrue statement. Take D9 THC as an example molecule. Delta-9 THC is used in the recreational marijuana market for the purposes of creating euphoria. However, Delta-9 THC is also allowed to be sold in hemp products at lower levels than recreational marijuana products. This is because Delta-9 THC is not inherently intoxicating, it is the dosage of Delta-9 THC in the finished product that determines whether that is an intoxicating product, or a wellness product. There are many examples of hemp products that contain Delta-9 THC and are not intoxicating. Intoxication is not based on specific molecules; it is based on the dosage of specific molecules in a finished product. This is very similar to the Kombucha Market and ethanol. Ethanol is the active ingredient in beer, wine and spirits and can cause intoxication. However, kombucha contains ethanol in lower doses and is not considered to be intoxicating.

The framework proposed by the task force create serious inconsistencies that will cause significant issues if made into law. For example, with this proposed framework, a product containing 2.5mg of Delta 9 THC would be considered lawful, whereas in this same framework, a product containing 1mg of the less

psychoactive cannabinoid Delta 8 THC would be considered unlawful. Even though the former product clearly contains a higher content of a more psychoactive cannabinoid than the latter example, the latter is prohibited while the former would be allowed.

Additionally, the taskforce has scrutinized the synthetically derived THC isomers for their potential for dangerous impurities. Despite the taskforce's scrutiny regarding synthetic THC isomers, they recommend an allowance of non-intoxicating synthetic cannabinoids for production and sale. The taskforce came to this conclusion because the majority of the taskforce agreed that synthesis can be done safely in a regulated environment. This proposed framework creates a path forward for synthetic cannabinoid production if it is done in a regulated environment with safety studies done on the finished ingredients. This is a tremendous step forward and I am in full support of this stance, however, there are a few issues that exist with the framework as proposed by the taskforce. Primarily, the task force recommends creating a very generous 2.5mg limit for Delta 9 THC in finished hemp products, while also prohibiting the sale of other, less psychoactive THC isomers. Where the inconsistencies get even more burdensome is the fact that the task force also recommends allowances for the manufacture, storage, and transfer of synthetic THC isomers, but would prohibit the sale of these isomers, even for export out of the state.

Finally, I want to point out that the taskforce's recommended prohibition regarding out of state sales for synthetic THC isomers will harm public health. The fact of the matter is, Delta 8 THC and its associated isomers represent a huge marketplace in the United States; the genie is out of the bottle, so to speak. As much as we would like to believe that prohibition will solve the problem, we have seen that prohibition does not work. Colorado residents and lawmakers understand that prohibition does not work, that is why we legalized marijuana in the first place and have recently legalized certain psychedelics. If we prohibit the out of state sale of Delta 8 THC and its associated isomers, other states will continue to consume Delta 8 THC; they just will not be buying it from Colorado companies. These policy recommendations put forth by the task force do not differentiate between good actors and bad actors and as a result these policies will end up harming good actors and empowering bad actors.

For reference imagine a bad actor; this "company" makes Delta 8 THC in a garage, it does not fully remove all residual byproducts of the synthesis, it does not get third party test results to ensure purity and they have no batch records or traceability program. Now compare the bad actor to a good actor; a good actor has a fully built out GMP laboratory, has invested in equipment and infrastructure to properly purify the cannabinoid ingredient, always gets 3rd party testing results prior to shipment, and has a full traceability program with regular mock recalls. The taskforce recommendation would not make a distinction between these companies; because there is no distinction, the good actor is punished for investing into doing business the correct way and is forced to decide between shutting down their business and losing their investment or moving out of the state. The bad actor is not afraid of CDPHE enforcement because they were never registered, they do not care about new safety frameworks for synthesis proposed by the taskforce because they were never going to follow them anyways. However, because other states, such as Florida, Kentucky and Tennessee have created allowances for Delta-8 THC and its associated isomers, the demand will not decrease because the good actors are forced to shut down. Instead, the demand will remain the same and the bad actors who operate from the shadows will instead take a greater portion of the market share. This means that the potentially dangerous products being manufactured and sold by bad actors will represent a greater proportion of the Delta 8 THC products being consumed.



Instead of taking a huge step backward for the cannabis industry by recommending prohibition of certain phytocannabinoids, I advocate for a modern approach in harm reduction. Using a harm reduction model, we will empower good actors to work with regulatory agencies to create the safest possible ingredients and products for export to other states. A harm reduction approach would also place a significant emphasis on promoting safety studies and additional research on these cannabinoids. While manufacturers that meet a certain criteria to be considered “good actors” are allowed to export these synthetic THC isomers out of the state, much of the profits from this endeavor would be required to be funneled into safety studies, toxicology studies and other important scientific studies. The taskforce has recommended that companies that wish to manufacture synthetic cannabinoids in Colorado would be required to conduct safety studies on their ingredients prior to allowance for in state sales. This is very close to alignment with my proposal, however the key difference is my proposal advocates allowances for Delta 8 THC manufacturing and export out of the state. An important distinction here is that without the ability to export Delta 8 THC and its associated isomers to states that have already legalized its sale, companies in Colorado will be unable to fund these studies. All of the regulatory burdens put forth by the task force are comprehensive, but achievable; however, the only way that a good actor in the state of Colorado will choose to stay in the state and adhere to these comprehensive regulatory burdens, is if they have the economic means to do so. Without the ability for good actors to export THC isomers out of state there will be no funds to conduct these safety studies in the first place.

If we take the prohibition approach, we will empower a black market, destroy the Colorado hemp industry, and endanger public health. If we instead decide to take a bold approach and embrace harm reduction, the good actors in Colorado’s hemp industry will become nationwide leaders in the manufacture of safe synthetic cannabinoids. No approach is perfect, however, when taking into consideration public health and the economic impact this will have on Colorado; I must advocate against prohibition.

**This framework in its proposed state will have the following effects:**

- Endangering public health by allowing bad actors to have greater proportion of the synthetic THC isomer market
  - Good actors will be forced to choose between losing the majority of their income and staying in Colorado or keeping the majority of their income and moving out of state
  - Good actors may also opt to shut their doors permanently
  - Bad actors will not worry about new regulations and will happily fill the void created by the exodus of good actors
  - When the good actors are destroyed by the taskforces proposed policies there will be no scientific advancement
  - Ingredients that are produced by bad actors and sold out of state will be manufactured into finished products and sent back to Colorado consumers, creating public health concern at home as well as out of state
- Mass exodus of Colorado Hemp companies resulting in a significant loss of jobs and tax income
  - The overly burdensome and inconsistent recommendations outlined by the taskforce will force hemp companies out of Colorado if they wish to stay in business
  - The synthetic cannabinoid market in Colorado represents approximately \$700,000,000 worth of revenue in the state of Colorado and has created 3000 well-paying jobs for Colorado citizens according to a 3rd party economic report created by Whitney Economics



- Much of this market share is from wholesale ingredient manufacturers exporting these cannabinoids out of the state
- The vast majority of synthetic cannabinoids that are currently being exported out of state are synthetic THC isomers such as Delta 8 THC
- Enforcement Nightmare created by allowances for manufacture, storage, and transfer but a prohibition on sales
  - Regulatory agencies would require significant resources to be able to create and implement a monitoring program that oversees manufacture, storage, and transfer of this material while also ensuring none is sold

**My Recommended Changes and rationale:**

- 1.) Do not lump cannabinoids into three categories, non-intoxicating, potentially intoxicating and intoxicating. Instead create two categories, non-intoxicating and potentially intoxicating.
  - Intoxication is based on dosage of a cannabinoid in a finished product
    - For example, a 25mg CBN gummy is likely to be more intoxicating than a 2mg D9 THC gummy
    - Almost all cannabinoids have the potential to be intoxicating; some have a higher potential some have a lower potential
  - Create limits for all potentially intoxicating cannabinoids in the state of Colorado
    - Category 1: Non-intoxicating cannabinoids
      - CBD
      - CBDV
      - CBDA
      - CBG
      - CBGV
      - CBGA
    - Category 2: Potentially intoxicating cannabinoids (Examples)
      - Delta 9 THC
      - Delta 8 THC
      - CBN
      - CBC
    - There are already recommended limits for Delta 9 THC in finished products, implement these limits for other THC isomers as well
- 2.) Change the Temporary manufacturing safe harbor status to allow for the export of THC isomers
  - The Temporary manufacturing safe harbor status has robust requirements for both attaining and maintaining the status, these should remain unchanged
  - The Temporary manufacturing safe harbor status also allows for the manufacture, storage and transfer of the synthetic THC isomers
  - I propose we also allow for the sale outside of the state of these THC isomers in addition to the recommended allowance for manufacture, storage, and transfer of these THC isomers

- As described in the above opinion, allowing for the export of these synthetic THC isomers will protect public health nationally as well as in the state of Colorado, while also protecting Colorado businesses and jobs

**Signed Task Force Members:** *Kyle Ray*

## Dissent Of Truman Bradley, Bruce Nassau & Brian Higgins

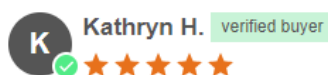
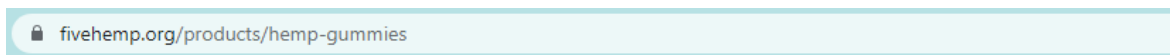
Dissenting Opinion: 2.5mg of THC per serving is a big mistake for Colorado

While we stand in support of virtually all of the hemp intoxicant recommendations from the SB22-205 Work Group, we strongly oppose the work group recommendation that a maximum dosage *per unit* of up to 2.5 mg of THC be the legal limit for “non-intoxicating” THC products. A serving size of 2.5mg threatens public safety unless sold within the regulated marijuana space, which has developed robust public safety regulations and protocols in regulating the sale of THC to the public.

- Public safety concerns:
  - Serving size of 2.5 mg of THC is too high to be considered “non-intoxicating”
  - These products will be available for sale to minors.
  - There is no limit of servings per container (a 90 serving container could contain up to 225 mgs of THC, which exceeds the per container limit in retail marijuana)
  - Task force recommended “safeguards” to justify the 2.5mg are inadequate to overcome the first three points.
- The sale of these products in Colorado should be regulated by MED
  - Full spectrum hemp derived THC can be produced by hemp manufacturers but should be sold through the current Colorado regulated marijuana system.
    - There is already a system in place to track potentially intoxicating cannabinoids (METRC)
  - Sales outside of Colorado should be outside the scope of this task group.
  - Products containing as much as 225 mg of THC should not be for sale to anyone without restrictions either online and delivered by mail or private courier (I.e. UPS or FedEx, or sold in general retail outlets which will be available for sale to minors.

**Public Safety:** 2.5 mg of THC may be intoxicating. 10 mg certainly is.

Due to differences in enzymes present in one’s liver and one’s ability to process THC, some people are more sensitive to THC levels than others. *Simply put, 2.5 mg will be intoxicating for some people.* Furthermore, calling products that contain 2.5mg “non-intoxicating” may lead purchasers to consume more than one serving. For example, the serving size for most packaged goods is far lower than people typically consume in one sitting (e.g. Doritos). Here is a review from a leading [full spectrum hemp gummy producer](#) on their website:



### Great High with Two

Take two and going to a film is a completely different experience. Don't take before going to bed.

Further studies for intoxication need to be conducted before permitting a number as high as 2.5 mg *per piece*. In the absence of reliable data, the task group and any legislation should err on the side of caution, which 2.5 mgs per piece greatly exceeds.

**Reciprocity:**

Products that this task force deems “non-intoxicating” and hence safe for all, must be permitted to be sold by anyone, including the regulated marijuana industry, under the exact same conditions and rules that govern non marijuana sellers. This includes but should not be limited to the same sales tax rates, excise tax rates, testing regulations, sales channels (retail, online etc), marketing/advertising, manufacturing permissions including existing licensed facilities and equipment, labeling, and age limits. In short, if it’s acceptable for anyone outside of the marijuana space to sell these, then an industry that has set record levels of compliance for health and safety should certainly be able to do the same.

**Public Safety:** The report fails to recommend restricting sales to minors.

At 2.5mg per serving, it is absolutely critical to restrict minors from accessing these products. Even if one accepts that 2.5 mg is not intoxicating, there is broad consensus that at a minimum, 10 mg of THC is intoxicating. With no limit to the number of servings per container, minors will simply be able to take a few servings to achieve an intoxicating dose. If the total container size can enable a minor to achieve intoxication, the sale of those products needs to be restricted to the regulated marijuana space.

**Public Safety:** A lack of recommendation for total servings per container opens a gigantic loophole to youth intoxication

Allowing minors unfettered access to products containing up to 90 servings in a package totalling up to 225 mg of THC to be sold online, in a retail store, or worse, handed to them by a FedEx delivery driver should not be acceptable in Colorado.

**Public Safety:** The 15:1 CBD to THC ratio is not a proven safeguard to outweigh the risks to public safety.

We have heard two arguments for the ratio: financial and “scientific.” Both lack merit.

**Financial**

The argument that these products are too expensive for minors to purchase them does not compute. For example, a [60 count container of “Daily Buzz” gummies on fivecbd.com](https://www.fivecbd.com/products/daily-buzz-gummies) (12/13/22) is being sold for \$53.19 (if one subscribes for monthly delivery) on their website. Under the proposed legal limit, a container with 60 servings could have up to 150 mg of THC, which could get 15 teenagers high at 10 mg per teenager at a cost of only \$3.55 per teenager. That’s already cheaper than a six pack of beer today. Furthermore, these products will get much cheaper in the years to come. The cost of producing CBD has been declining for years and will continue to become cheaper as businesses scale up and achieve common production efficiencies. *Given the costs coupled with ease of access, it is likely that hemp derived THC products will become the cheapest as well as the easiest intoxicating products for Colorado youth to obtain.*

## **Scientific**

The studies that show that CBD has a lessening impact on THC need further research before they can serve as a backstop to youth intoxication. There are no solid, independent, peer reviewed, longitudinal studies supporting the statement that a 15:1 CBD to THC ratio is not intoxicating. The reality is, we do not have sufficient evidence to declare that any ratio of CBD to THC will render THC not intoxicating for all people. We certainly should not be betting our children's future on it. Internal studies are not sufficient for something this important. There is also anecdotal evidence that consuming CBD prior to THC may enhance the psychoactive intoxicating experience. Additionally, different people will have different sensitivity levels to THC and CBD and the combination thereof.

The Medical Marijuana Space, not the Hemp Space is the Correct Space for the Treatment of Medical Conditions with products containing THC.

It is well known that some individuals require extremely high doses of THC to feel its effects, even as high as 500 mg, whereas others can become intoxicated at a dose of 2.5 mg or less THC. This is a result of the enzymes present in one's liver and their ability to process THC.

In order to receive THC in any dosage under the marijuana industry, a minor must be recommended to do so by 2 doctors, and they must receive the products from a caregiver or strictly licensed medical dispensary. They must see at least one medical doctor each year to renew their medical card. Doctors, under Colorado law, must include in their recommendations a recommended dosage amount of THC. The use of THC should remain in the medical marijuana space where a doctor's recommendation and continuing care is necessary to obtain this product.

THC at 2.5 MG per Serving Belongs in the Marijuana Space.

If the SB22-205 Work Group's recommendation of 2.5 mg per serving becomes Colorado law, the hemp industry will be allowed to sell containers of products containing THC at levels far greater than those allowed in a single container of any regulated marijuana infused product, which is limited to 100 mg per container. THC has always been regulated in Colorado by the Marijuana Enforcement Division through its oversight and licensing of production and sale of marijuana and its key active ingredient, THC. The recommendations by this Work Group to allow a maximum dose per serving size of 2.5 mg of THC provides an effective "end run" around this system, avoiding sales limitations, comprehensive testing, taxes, licensing, child resistant packaging, identifying edibles with a THC stamp, labeling, and oversight from the MED.

This creates an unequal market where one industry is allowed to sell unregulated THC without taxation through the mail or through convenience stores while the other industry must pay licensing fees, comply with package, stamping, labeling and purchase limits, pass burdensome testing, and remit exponentially higher taxes for the sale of the same product containing the same THC levels. If these recommendations go forward and become law, the marijuana space should also be deregulated for the same products.

## **Conclusion and Recommendations.**

Whatever the limit chosen, it should be one that objectively does not cause intoxication. What causes intoxication needs to be determined by science. In truth, we do not believe there is an appetite to deregulate the current system, which is why there should not be an alternative, largely unregulated system for the sale of the same products solely because they are hemp-derived. We are open to further discussion about an appropriate THC limit per piece and a total THC limit per package, but 2.5 mg of THC per piece is unacceptable. It is worth noting that Oregon recently legislated a *per package* limit of 0.5 mg of THC for unrestricted sales.

This task force's recommendation of 2.5mg of THC *per serving* would be five times higher *per serving* than what the Oregon model allows *per container*. Furthermore, the task force's lack of a container limit recommendation means Colorado could sell a product literally hundreds of times higher *per container* than those sold in Oregon. a.

If the hemp industry wants to continue to produce full spectrum products containing hemp-derived THC above the recommended levels, then the state should legislate a system allowing the hemp industry to produce these products and only sell them in Colorado within the marijuana industry for distribution through dispensaries. Let the other states figure out how they want to regulate it, if at all, and permit the sale of these products to other states or countries and the Colorado hemp producer can comply with those laws.

There is already a system to move product from the hemp space into the marijuana space through METRC and all of the safeguards that have been carefully legislated and regulated in Colorado can be deployed for the sale of these beneficial products. Allowing the sale of these products online or through convenience stores puts Colorado youth at risk and runs counter to over a decade of Colorado's national and international leadership in the THC space.

Furthermore, we recommend the creation of a task force within the attorney general's office of 5-10 staff members to monitor online sales of intoxicating products from outside of Colorado to individuals within Colorado. Again, we support the work of the SB22-205 work group with the exception of this ill-conceived plan to produce unregulated hemp-derived products with intoxicating levels of THC for unfettered sale in the Colorado marketplace.

**Signed Task Members: *Truman Bradley, Bruce Nassau, Brian Higgins***

## **Dissent Of Garrett Graff & John Harloe Concerning Regulatory Authority**

I support the limits proposed by the Task Force with respect to finished products to be sold in Colorado, based upon potency limits on serving size as well as ratios. I further support the need for CDPHE to have regulatory authority which is sufficiently nimble to further amend such limits in the future to regulate against any new iterations of intoxicating hemp products.

However, I believe we must all be careful with respect to this delegation of authority. Allowing CDPHE such flexible authority should not usurp legislative power and allow there to be a backdoor way to permit interested parties to *de facto* ban the production and sale of hemp-derived cannabinoid products by virtue of unreasonably restrictive and unnecessary limitations on finished hemp products, such as container limits. Such unreasonably restrictive and unnecessary limits are not narrowly tailored to regulating intoxicating hemp products and disregard the other protections proposed to be implemented to more narrowly guard against intoxicating hemp products (i.e. serving size and ratio limits).

Should an agency such as CDPHE determine there be a need to further amend limits in the future, I strongly recommend CDPHE take great care in engaging affected stakeholders in an objective and robust stakeholder and rulemaking process which is supported by scientific data and real-world adverse event reporting data. Otherwise, such decision-making power should be appropriately reserved to the legislature.

Signed Task Force Members: *John Harloe, Garrett Graff*

## **Dissent Of Garrett Graff & John Harloe Concerning Safe Harbors**

This dissenting opinion relates to: (i) the scope of the proposed safe harbors; and (ii) the negative impacts of designating certain cannabinoids as, *per se*, intoxicating, at both the manufacturing and finished product level.

To be clear, this dissent agrees with the Task Force’s decision to recommend certain potency and ratio limitations on the sale of finished intoxicating hemp products within the State of Colorado. It is the broader conclusions of the Task Force associated with these recommendations, along with their failure to provide freedom to operate outside Colorado’s borders, with which this dissent takes issue.

As the Task Force is well aware, the legal and regulatory framework governing hemp and cannabinoid products in the United States is fractured, inconsistent, and ever-changing. In a word, it is a “patchwork.” Colorado companies that participate in our nationwide hemp economy reside in this State, but they cultivate, manufacture, and sell hemp, hemp ingredients, and finished products everywhere—in Colorado, every other State, and internationally. The ability to participate in this broader market is critical, as hemp companies face high costs of compliance, varied regulatory requirements, low margins, and a relatively small marketplace in Colorado for their products and services. That is why, as far as this dissent is aware, every State thus far has limited their hemp laws and regulations to intrastate activities, thereby preserving in-state “hemp business’s ability to compete in the hemp market in other states.” *Considerations in Establishing Cannabinoid Limits for Hemp Products*, Rationale for Rulemaking, Oregon Liquor & Cannabis Commission.

Nonetheless, the Task Force has concluded that the in-state potency and ratio limitations it recommends will generally apply even if a Colorado company is manufacturing bulk ingredients or finished products solely for sale or distribution outside Colorado’s borders—e.g., in a State where those bulk ingredients and finished products are completely legal. Although the Task Force recommends a narrow set of “safe harbors”—exceptions to these in-state limits—those safe harbors only allow Colorado companies to export to other states *a narrow and specific set of ingredients and/or finished hemp products*. In other words, the Task Force has chosen to disregard Colorado’s geographic boundaries. This is bad policy and unlikely to survive one of many credible legal challenges.

Although Colorado is certainly free to impose limitations, in the interest of public health and safety of its citizens, on what kind of finished products can lawfully be sold in this State, it simply has no authority to speak for and override or police the laws and regulations of other States. Colorado cannot apply its own legislative determinations extraterritorially.

Specific examples of how the Task Force’s approach will prohibit Colorado companies from participating in the legal hemp marketplace of other States include:

- Many States do not impose restrictions on manufacturers beyond general compliance with food manufacturing requirements and sourcing compliant hemp derivatives (by contrast, the Task Force would dictate what cannabinoids a Colorado manufacturer could manufacture and/or transfer to an out-of-state facility, even though an out-of-state facility would not be subject to the same restrictions, yet transfer some of those very same cannabinoids into Colorado without consequence);
- The State of Minnesota explicitly allows for hemp-derived products up to 5 mg THC per serving to be sold (by contrast, it is unclear whether the Task Force would prohibit a Colorado-based



company from manufacturing these products in-state and selling them in Minnesota, as the Task Force proposes to limit products to 2.5 mg per serving, plus a 15:1 CBD:THC ratio);

- The States of Florida and Kentucky have determined that cannabinoids, such as delta-8 THC, are lawful within their states (where the Task Force proposes to entirely prohibit delta-8 THC from manufacture or sale (even, for instance, a company wanted to sell a .1 mg delta-8 THC product), except for use to make CBN);
- Many States freely authorize the manufacture and sale of CBN and other novel cannabinoid products (where the Task Force proposes to restrict potency to 25 mg);

As a general principle in any industry (particularly in the manufacture of foods, supplements and cosmetics generally), ingredient and product manufacturers require freedom to operate in order to handle a number of different ingredients to serve different customers, even if the finished products may be regulated differently by industry or in different states or jurisdictions. However, in this case, Colorado seeks to restrict: (i) which cannabinoids manufacturers may possess in the State; (ii) how manufacturers can use those cannabinoids; (iii) and to whom and to where manufacturers may sell those cannabinoids—here, in all 50 states, and even abroad. Not only is this facially unreasonable and impractical to actually enforce, but it will lead to one of two outcomes, all of which are bad policy. First, Colorado-based manufacturers who value compliance will simply choose to leave the State, as they cannot justify continuing to operate in Colorado when doing so cuts them off from participation in the legal, nationwide hemp marketplace. Second, so-called “bad actors” will continue to act with impunity in violation of these requirements, pushing more activity underground and increasing risks to consumers. In short, the Task Force fails to recognize a fundamental reality: Hemp is not an *intrastate* industry, it is an interstate industry.

Perhaps more importantly, such restrictions are likely unconstitutional by discriminating against Colorado manufacturers in a disproportionate manner relative to out-of-state manufacturers, thereby violating constitutional protections for interstate commerce. Any rules implementing these regulations are similarly vulnerable to challenge on administrative grounds as lacking any rational basis, as arbitrary and capricious, or otherwise violative of applicable law. This means any legislation (including implementing regulations) arising out of this Task Force report will certainly be challenged on constitutional grounds, may well be enjoined from enforcement, and could otherwise be subject to protracted litigation.

This dissent proposes that the legislature implement a modified safe harbor protection:

- Allowing for Colorado-based ingredient manufacturers to freely handle and export bulk hemp-derived cannabinoids for use in products to be sold in Colorado or in other states;
- Allowing for Colorado-based product manufacturers to freely manufacture finished products for sale in Colorado or in other states, so long as measures (i.e. batch tracking) are taken to ensure that only products which comply with Colorado requirements for finished products are sold within Colorado;
- All manufacturers shall generally comply with CDPHE regulations applicable to food manufacturers

Signed Task Force Members: *John Harloe, Garnett Graff*

## **Dissent Of James Granger**

- Public safety concerns:
  - Serving size of 2.5 mg of THC is too high to be considered “non-intoxicating” AND suggest that review is done to confirm this statement along with work with hemp full spectrum product manufacturers to come up with a lower, yet production-capable limit and take other measures to ensure that these products are not set up for abuse by the general public.
  - These products will be available for sale to minors.
  - There is no limit of servings per container (a 90 serving container could contain up to 225 mgs of THC, which exceeds the per container limit in retail marijuana)
- The sale of these products in Colorado should be regulated by MED
  - Full spectrum hemp derived THC can be produced by hemp manufacturers but should be sold through the current Colorado regulated marijuana system.
    - There is already a system in place to track potentially intoxicating cannabinoids (METRC)
  - Sales outside of Colorado should be outside the scope of this task group.
  - Products containing as much as 225 mg of THC should not be for sale to anyone without restrictions either online and delivered by mail or private courier (I.e. UPS or FedEx, or sold in general retail outlets which will be available for sale to minors).

### **Public Safety: Serving Size**

**In my own opinion, careful consideration by the rule making authorities needs to be given to this and to the cause of why this limit was suggested. I do personally understand there is a slight amount of THC in full spectrum, by nature. I do understand the “hot hemp” problem from past issues with hemp manufacturing and believe there should be a lower limit discussed based on science and COA results given in the committee.**

### **Public Safety: The report fails to recommend restricting sales to minors.**

At 2.5mg per serving, it is absolutely critical to restrict minors from accessing these products. Even if one accepts that 2.5 mg is not intoxicating, there is broad consensus that at a minimum, 10 mg of THC is intoxicating. With no limit to the number of servings per container, minors will simply be able to take a few servings to achieve an intoxicating dose. If the total container size can enable a minor to achieve intoxication, the sale of those products needs to be restricted to the regulated marijuana space **OR SOLD THROUGH A SYSTEM THAT VERIFIES ID UPON PURCHASE.**

### **Public Safety: A lack of recommendation for total servings per container opens a gigantic loophole to youth intoxication**

Allowing minors unfettered access to products containing up to 90 servings in a package totaling up to 225 mg of THC to be sold online, in a retail store, or worse, handed to them by a FedEx delivery driver should not be acceptable in Colorado.

**Public Safety: The 15:1 CBD to THC ratio is not a proven safeguard to outweigh the risks to public safety.**

We have heard two arguments for the ratio: financial and “scientific.” Both lack merit.

**Financial**

These products will get much cheaper in the years to come. The cost of producing CBD has been declining for years and will continue to become cheaper as businesses scale up and achieve common production efficiencies. *Given the costs coupled with ease of access, it is likely that hemp derived THC products will become the cheapest as well as the easiest intoxicating products for Colorado youth to obtain.*

**Scientific**

The studies that show that CBD has a lessening impact on THC need further research before they can serve as a backstop to youth intoxication. There are no solid, independent, peer reviewed, longitudinal studies supporting the statement that a 15:1 CBD to THC ratio is not intoxicating. The reality is, we do not have sufficient evidence to declare that any ratio of CBD to THC will render THC not intoxicating for all people. We certainly should not be betting our children’s future on it. Internal studies are not sufficient for something this important. There is also anecdotal evidence that consuming CBD prior to THC may enhance the psychoactive intoxicating experience. Additionally, different people will have different sensitivity levels to THC and CBD and the combination thereof.

**The Medical Marijuana Space, not the Hemp Space is the Correct Space for the Treatment of Medical Conditions with products containing THC.**

It is well known that some individuals require extremely high doses of THC to feel its effects, even as high as 500 mg, whereas others can become intoxicated at a dose of 2.5 mg or less THC. This is a result of the enzymes present in one’s liver and their ability to process THC.

In order to receive THC in any dosage under the marijuana industry, a minor must be recommended to do so by 2 doctors, and they must receive the products from a caregiver or strictly licensed medical dispensary. They must see at least one medical doctor each year to renew their medical card. Doctors, under Colorado law, must include in their recommendations a recommended dosage amount of THC. The use of THC should remain in the medical marijuana space where a doctor’s recommendation and continuing care is necessary to obtain this product.

**Conclusion and Recommendations.**

**I do see how we can form a middle ground that protects public safety. Also, the science is sound of why full spectrum hemp manufacturers wish to have this limit. There are scientific procedures that can be utilized to reduce the amount of THC in any substance, therefore an intoxicating amount of THC in an extract can be mitigated in production to a more reasonable level.**

**I personally would recommend container sizes to limit abuse of the system and close further loopholes in the language that is allowing intoxicating products to reach audiences that should not have access without a caregiver.**

Signed; *James Granger*

## APPENDICES

### SB 22-205 Task Force Meeting Record

<b>Task Force Meetings</b>			
<i>The Task Force met on the following days. Links in the table below include which members attended each meeting, the recording for each meeting, and the notes that were captured.</i>			
1	<b>July 13, 2022</b>	<a href="#"><u>Attendance Sign-In Sheet</u></a>	<a href="#"><u>Meeting Recording</u></a> <a href="#"><u>TF Notes</u></a>
2	<b>August 3, 2022</b>	<a href="#"><u>Attendance Sign-In Sheet</u></a>	<a href="#"><u>Meeting Recording</u></a> <a href="#"><u>TF Notes</u></a>
3	<b>August 19, 2022</b>	<a href="#"><u>Attendance Sign-In Sheet</u></a>	<a href="#"><u>Meeting Recording</u></a> <a href="#"><u>TF Notes</u></a>
4	<b>August 23, 2022</b>	<a href="#"><u>Attendance Sign-In Sheet</u></a>	<a href="#"><u>Meeting Recording</u></a> <a href="#"><u>TF Notes</u></a>
5	<b>August 24, 2022</b>	<a href="#"><u>Attendance Sign-In Sheet</u></a>	<a href="#"><u>Meeting Recording</u></a> <a href="#"><u>TF Notes</u></a>
6	<b>September 7, 2022</b>	<a href="#"><u>Attendance Sign-In Sheet</u></a>	<a href="#"><u>Meeting Recording</u></a> <a href="#"><u>TF Notes</u></a>
7	<b>September 14, 2022</b>	<a href="#"><u>Attendance Sign-In Sheet</u></a>	<a href="#"><u>Meeting Recording</u></a> <a href="#"><u>TF Notes</u></a>
8	<b>September 19, 2022</b>	<a href="#"><u>Attendance Sign-In Sheet</u></a>	<a href="#"><u>Meeting Recording</u></a> <a href="#"><u>TF Notes</u></a>
9	<b>September 29, 2022</b>	<a href="#"><u>Attendance Sign-In Sheet</u></a>	<a href="#"><u>Meeting Recording</u></a> <a href="#"><u>TF Notes</u></a>
10	<b>October 10, 2022</b>	<a href="#"><u>Attendance Sign-In Sheet</u></a>	<a href="#"><u>Meeting Recording</u></a> <a href="#"><u>TF Notes</u></a>
11	<b>October 12, 2022</b>	<a href="#"><u>Attendance Sign-In Sheet</u></a>	<a href="#"><u>Meeting Recording</u></a> <a href="#"><u>TF Notes</u></a>
12	<b>October 26, 2022</b>	<a href="#"><u>Attendance Sign-In Sheet</u></a>	<a href="#"><u>Meeting Recording</u></a> <a href="#"><u>TF Notes</u></a>
13	<b>November 2, 2022</b> <a href="#"><u>Vote Record</u></a>	<a href="#"><u>Attendance Sign-In Sheet</u></a>	<a href="#"><u>Meeting Recording</u></a> <a href="#"><u>TF Notes</u></a>

14	<b>November 3, 2022</b>	<a href="#">Attendance Sign-In Sheet</a>	<a href="#">Meeting Recording TF Notes</a>
15	<b>November 9, 2022</b> <a href="#">Vote Record</a>	<a href="#">Attendance Sign-In Sheet</a>	<a href="#">Meeting Recording TF Notes</a>
16	<b>November 10, 2022</b> <a href="#">Vote Record</a>	<a href="#">Attendance Sign-In Sheet</a>	<a href="#">Meeting Recording TF Notes</a>
17	<b>November 21, 2022</b> <a href="#">Vote Record</a>	<a href="#">Attendance Sign-In Sheet</a>	<a href="#">Meeting Recording TF Notes</a>
18	<b>November 30, 2022</b> <a href="#">Vote Record</a>	<a href="#">Attendance Sign-In Sheet</a>	<a href="#">Meeting Recording TF Notes</a>
19	<b>December 2, 2022</b> <a href="#">Vote Record</a>	<a href="#">Attendance Sign-In Sheet</a>	<a href="#">Meeting Recording TF Notes</a>
20	<b>December 7, 2022</b> <a href="#">Vote Record</a>	<a href="#">Attendance Sign-In Sheet</a>	<a href="#">Meeting Recording TF Notes</a>
21	<b>December 14, 2022</b> <a href="#">Vote Record</a>	<a href="#">Attendance Sign-In Sheet</a>	<a href="#">Meeting Recording TF Notes</a>

*All materials prepared by or for the Task Force are available in the [Public Task Force Folder](#), which includes individual folders for the Draft Report Materials & Documents, Meeting Materials & Recordings, Public Written Comments, Shared Information, and Task Force Member Proposals. Additionally, all meeting recordings are available on the [SB 22-205 Task Force Webpage](#).*

*All [votes](#) taken by the Task Force are also available in the Public Task Force folder.*

## **Impact On Future Federal Regulatory Landscape**

(Note-Original language from Task Force member Alan Lewis)

Federal regulators (including the FDA and DEA) have not formalized acceptance of either hemp or marijuana products. At best, their stance can be described as one of “tolerance” and “enforcement discretion” that allow states individually and collectively to control production and sale. Guardrails still exist; if states fail to protect consumers from unsafe products there are numerous methods by which US government agencies can intervene.

The stakeholder task force would like to highlight the consensus thinking developing in the national arena, where longtime marijuana and hemp advocates are carefully examining the following approaches.

1. Emphasize the need for federal decriminalization of adult-use marijuana. This will free many incarcerated people who would not have been convicted under current laws. Decriminalization includes expungement of related court records of arrests and convictions.
2. At the federal level, remove marijuana from the controlled substances list to facilitate interstate trade. This will allow individual companies to consolidate operations in the state(s) whose regulations best suited their needs, and from there distribute across state lines legally and efficiently.
3. Establish a deadline for compliance with FDA rules for production of food and dietary supplement ingredients and products, including labeling and marketing. This will forestall risk-based enforcement actions against Colorado companies, and prevent product seizure due to misbranding and safety concerns.
4. At the state level, regulate all products containing intoxicating amounts of cannabis derivatives under marijuana laws. This will capture potentially dangerous compounds in a licensed, regulated, taxed economy to improve public safety and economic viability.
5. Unstudied potentially intoxicating cannabinoids should be limited to de minimis amounts in finished products until their characteristics and safety are understood.
6. Immediate funding should be allocated to undertake baseline safety studies of D8 and D10 to determine if they can be marketed like D9 THC and in what amounts and combinations.
7. Immediate funding should be allocated to undertake baseline studies of chemically synthesized cannabinoids, with special attention to unknown, unexpected, and potentially dangerous entourage chemicals resulting from these materials, methods, and processes.
8. Require lot-level lab analysis of all potentially intoxicating cannabinoids sold through dispensaries to ensure purity and safety.
9. Prevent the introduction of products containing intoxicating amounts of cannabinoids, including compounds like D8 and D10, into any retail channel except licensed marijuana dispensaries.
10. Recognize that unregulated production presents a threat to both marijuana and hemp markets, since uncontrolled safety, potency, identity and adulteration may cause significant adverse effects that may taint the reputation of compliant businesses and products.

11. Recognize that the underground economy for these compounds now comprises over half of sales, so it is imperative that a legal path to market exists for properly produced, formulated, and marketed products.
12. Increase surveillance testing of suspect products sold in general retail stores and online.
13. Recognize the harm potentially caused by the proliferation of unregulated synthesized and/or intoxicating products as compared to beneficial cannabis products which are produced in accordance conventional food manufacturing regulations; the halo of efficacy and safety of marijuana, especially compared to alcohol, is being destroyed by the negative consequences of gray market D8 and D10 derivatives.
14. Provide public education about the potential dangers of cannabinoids which are not produced in accordance with conventional food manufacturing safety regulations and/or are illegally produced intoxicating cannabinoids that may contain chemical residues, impurities, and adulterants that can cause sever harm including death.
15. Maintain a firewall between dietary supplement products containing full spectrum hemp extract and other non-intoxicating hemp products that are compliant with the Farm Bill, versus intoxicating cannabis products, including especially D8 and D10. Dietary supplements are under attack by powerful forces in Washington, and we must take care to ensure that the integrity of safety studies on certain non-intoxicating hemp products – such as dietary supplements containing full spectrum hemp products – are maintained, upheld and observed so we can provide them no reason to suspect the safety of CBD dietary supplement products.
16. Share the economic opportunity with minority, marginalized, and formerly incarcerated communities, including access to capital and equal treatment under the law.



# **Comment on Cannabis Bill SB 0516.pdf**

Uploaded by: Blake Van Wingerden

Position: FWA



Chair Melony Griffith  
Senate Finance  
Miller Senate Office Building  
Annapolis, MD 21401

**Reference: SB0516 - Favorable with Amendments**

By:  
Tyler Van Wingerden  
Blake Van Wingerden

Dear Chairs and Members,

Catoctin Hemp is a family business located north of Frederick, MD. We started in 2019 when there was an opportunity to do research with the hemp plant. We partnered with the University of Maryland and started to work on understanding the hemp plant and how it can be used in Maryland's agriculture.

Since 2019 we have become much more educated about the hemp plant and the industry that has been built up around it. Our family business now grows, processes, and extracts hemp plants. We also formulate the extract into non-intoxicating products that are now being used by hundreds of customers to help with pains and ailments.

Catoctin Hemp is not a part of the 75% other CBD hemp extract producers who are participating in the Delta-8 and other loophole intoxicant market.<sup>1</sup> We have been operating by both the letter and intent of the law. We strongly believe that all intoxicating products should be under the jurisdiction of the MMCC (now ATCC). What constitutes an intoxicating product is the distinction that requires clarity for efficient and effective regulation. There is precedent in other states to look at the ratio of CBD to THC as an indicator on whether or not the product is intoxicating. Colorado is a leader in the nation in regards to regulating cannabis and hemp products. Under SB22-205, the state set up a Task Force to conduct a study on the distinction between intoxicating and non-intoxicating hemp products. Based on their findings, they established a limit of 2.5mg of total THC per serving AND a 15:1 CBD to THC ratio or higher.

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<sup>1</sup> <https://mjbizdaily.com/2022-us-hemp-harvest-projected-to-shrink-by-nearly-half-of-2021/>

It is our request that Maryland take into consideration the ratio of CBD to THC in the products that hemp companies sell as well as a milligram limit per serving. The ratio we recommend, based on the Colorado Task Force findings, is 15:1, CBD to THC (includes all forms of THC), and the milligram limit per serving is 2.5 mg of total THC per serving. By following the guidelines set in Colorado, Maryland will be able to ensure that non-intoxicating hemp products will still be available to licensed hemp farmers and producers. The Task Force says on page 19 of its report, “the Task Force recommends that a milligram potency limit per serving coupled with a CBD:THC ratio is currently sufficient to guard against intoxicating hemp products from being sold within Colorado and no container limit is recommended at this time.”<sup>2</sup>

Thank you for your consideration, we are looking forward to growing the non-intoxicating Hemp products industry in Maryland.

Respectfully submitted,

Tyler Van Wingerden  
Founder and COO  
Catocin Hemp

Blake Van Wingerden  
Founder and CFO  
Catocin Hemp

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<sup>2</sup> SB22-205 Task Force Final Report, page 19

# **D8 and D8 CBD\_THC Ratios - Sheet1.pdf**

Uploaded by: Blake Van Wingerden

Position: FWA



Below is a list of a small sampling of Delta-8 and Delta-9 products. This list serves an example of how Delta-8 and Delta-9 products will not meet the proposed CBD to THC ratio limit

Product Name	Company	CBD per Serving (mg)	Delta-9 THC Per Serving (mg)	Delta-8 THC Per Serving (mg)	Total THC Per Serving (mg)	CBD:THC (total) Ratio	URL to Product
Georgetown Hemp Delta 8 Gummies	Georgetown Hemp	None	None	25	25	No CBD	<a href="https://www.georgetownhemp.com/gth-delta-8-gummies-25mg-per-gummy.html">https://www.georgetownhemp.com/gth-delta-8-gummies-25mg-per-gummy.html</a>
Georgetown Hemp MoonWlkr CBD:THC Gummies	Georgetown Hemp	25	5	-	5	5:1	<a href="https://www.georgetownhemp.com/copy-of-moon-wlkr-cbdthc-gummies-atlas-750mg-cbd-1.html">https://www.georgetownhemp.com/copy-of-moon-wlkr-cbdthc-gummies-atlas-750mg-cbd-1.html</a>
Delta 9 THC Gummies	cbdMD	77	10.5	none	10.5	7:1	<a href="https://www.cbmd.com/delta-9-gummies-10-mg-20-count-cherry">https://www.cbmd.com/delta-9-gummies-10-mg-20-count-cherry</a>
Delta 8 MAx Gummies	Hometown Hero	None	None	100	100	No CBD	<a href="https://hometownherocbd.com/products/delta-8-max-gummies-green-apple">https://hometownherocbd.com/products/delta-8-max-gummies-green-apple</a>
3CHI Delta-8 Watermelon Gummies	Cannabuddy	None	none	6	25	No CBD	<a href="https://cannabuddy.com/product/3chi-delta-8-watermelon-gummies-400-mg-total-delta-8-thc/">https://cannabuddy.com/product/3chi-delta-8-watermelon-gummies-400-mg-total-delta-8-thc/</a>
KOI Delta-8 THC Tincture	KOI CBD	None	0.96	32	33	No CBD	<a href="https://koicbd.com/delta-8/tinctures/">https://koicbd.com/delta-8/tinctures/</a>
50mg Delta 9 THC Cookie	Ounce of Hope	None	8	none	8	No CBD	<a href="https://www.ounceofhope.com/product/delta-9-snickerdoodle-cookies/">https://www.ounceofhope.com/product/delta-9-snickerdoodle-cookies/</a>
Delta 8 THC Cartridge	Delta 8 US	None	None	929	929	No CBD	<a href="https://www.binoidcbd.com/collections/binoid-cbd-collection/products/delta-8-thc-vape-cartridge">https://www.binoidcbd.com/collections/binoid-cbd-collection/products/delta-8-thc-vape-cartridge</a>

**SB516\_FWA\_Mary and Main Dispensary.pdf**

Uploaded by: Bryan Alston

Position: FWA



Honorable Melony Griffith, Chair  
Finance Committee  
Miller Senate Office Building,  
11 Bladen St., Annapolis, Maryland

Re: SB516-Cannabis Reform  
**FAVORABLE WITH AMENDMENTS**

Chair Griffith and members of the Committee,

My name is Hope Wiseman, and I am the founder and CEO of Mary & Main, a medical dispensary located in District 25 of Prince George's County, where I was born and raised. We are one of the only black owned businesses in Maryland's cannabis industry and I have been recognized as the youngest black woman to own a dispensary in the United States. I am proud to say that Mary & Main is 100% African American, Women, Disabled Veteran owned, and was founded alongside my mother, Dr. Octavia Wiseman, a local dentist and entrepreneur dedicated to serving her community through healthcare and financial empowerment. I am especially excited about the growth of the industry since we began our journey and am happy to support the bill and give my recommendation as favorable with amendments.

Firstly, I want to emphasize the importance of individuals like myself in the industry. The emergence of the legal cannabis industry has created a much-needed wealth building opportunity for black and minority entrepreneurs who have been traditionally left out of participating in emerging industries such as technology, gaming, and renewable energy, just to mention a few. It is essential that we ensure that these opportunities for wealth creation are accessible to everyone, especially demographics who have been most impacted by prohibition efforts.

I commend the legislators for listening to industry stakeholders and making a conscious effort to ensure equity throughout the legislation. Specifically, I appreciate the low tax rate and the detailed effort towards ensuring that tax revenue is allocated to the most disenfranchised communities and organizations that are already doing the work. This is a critical step towards creating a more equitable industry.



Moreover, I want to commend the effort to support social equity through the creation of the Office of Social Equity. The Office will provide businesses with funding and technical assistance programming, critical in ensuring that all businesses, regardless of their size, have an opportunity to succeed in this industry.

## Bill Concerns

However, I am concerned about the limitations of the current legislation when it comes to scaling a business. One of the newly elected governor Wes Moore's campaign promises was to create "A Bold Plan to Unlock Economic Opportunity for Maryland's Black Families," and I firmly believe that the cannabis industry is a key part of that opportunity.

One of the reasons I pursued this industry was to build wealth for my family and pave the way for others to do the same. Unfortunately, the current legislation does not allow for companies to scale their businesses to reach heights of wealth creation, and it could breed a market of licensees unable to compete with the current national players.

If Maryland wants to see true Black and minority wealth creation, legislation must provide a pathway for this to exist. A thriving cannabis industry in Maryland can be a key driver of economic growth in black communities, and it is imperative that we create an environment where businesses can compete on a national scale.

That being said, I am a member of the Maryland Black Operators Alliance and we have proposed a list of amendments and suggested language that supports the growth of minority owned businesses in Maryland (please see attached).

## Micro-dispensaries

I have concerns and a number of questions related to the micro-dispensary licenses. While we understand that, as defined, they will not have a physical space (non-storefront), will they be allowed to have warehouse/storage space? If so, this would make it very hard for any of the small, brick and mortar dispensaries—converted or new standard licenses— to compete. Are they able to use independent contractors, over and above the ten-employee limit? Are there limitations on the amount of product





any vehicle can carry at one time? Are they allowed to deliver cannabis 24/7 and can they deliver statewide? Will they be able to sell at pop up events that are broken down at the end of the night? We believe more thought should be given to these and other issues prior to awarding this particular licensing category. Therefore, we would request the General Assembly consider a pilot program with a much smaller number of licenses prior to issuing these micro-dispensary licenses.

### Delivery

Currently licensed dispensaries are allowed to deliver medical cannabis. While all of them do not deliver, some do, and they do so safely. We would request that all converted dispensaries be allowed to continue delivery.

### Advertising

We would request simply carrying over the advertising requirements from the medical program, adjusting them to accommodate the adult use program.

### Home Grow

Since SB 516 allows home grow, we request language be added to the bill allowing dispensaries to sell seeds, clones and cuttings. Patients and consumers are used to purchasing products from dispensaries, so we believe allowing this makes sense.

### Onsite Consumption Lounges—Licenses

As drafted, Senate Bill 516 allows onsite consumption lounges to sell cannabis products. This further adds to the number of retail licenses/retail locations in Maryland. This should be taken into consideration as you deliberate on overall dispensary license caps. With that, we have two requests with regard to consumption lounges:

Current dispensaries should be eligible to apply for an onsite consumption lounge. Currently, they are prohibited from doing so in SB 516. Dispensaries already have experience with cannabis products, and already have an understanding about how to



safely store, handle and sell products and already have staff trained to recognize and handle intoxication and substance use disorders.

In addition, the bill allows local jurisdictions the ability to ban smoking and vaping at onsite consumption lounges. Many people, especially renters, are not allowed to smoke or vape in their place of residence. Onsite consumption, lounges, then, provide for them a place to do that. We would respectfully request this language be amended out of the bill.

In closing, I want to thank the General Assembly for its efforts so far and for having the spirit of equity in mind. I am aligned with this vision and want to work with you to achieve our shared goals. However, I urge the committee to consider the limitations of the current legislation and to work towards creating a more expansive and inclusive industry that allows for wealth creation for black entrepreneurs specifically. I offer myself and my experience to all members of the General Assembly as we tackle this momentous legislation.

Thank you for your time and consideration.

Kindly,

**Hope Wiseman**

Founder/CEO, Mary and Main

Maryland Black Operators Alliance (member)

Maryland Medical Dispensary Association (policy committee)



**SB 516 FWA Testimony[77].pdf**

Uploaded by: Calvin Smith

Position: FWA



16701 Melford Blvd Suite 400 Bowie, MD 20715

March 8, 2023

**SB 516 (HB 556) CANNABIS REFORM  
FAVORABLE WITH AMENDMENTS**

Dear Madame Chair and Members of the Senate Finance Committee:

GasGuide LLC is a Maryland domiciled company with a track record of safely and securely delivering cannabis products to patient consumers of medical cannabis and capable of performing the same level of service in the adult-use market. We submit this written testimony in favor of Senate Bill 516(HB 556), with amendments.

The legalization of cannabis is a major step forward that will create many new opportunities for entrepreneurs, however, as with any valuable commodity, there are risks associated with transporting cannabis. These risks can range from theft and diversion to accidents and other incidents that could compromise public safety.

While we are supportive of the overall goal of the Cannabis Reform legislation, we are also here today to express our opposition to the "ice cream truck" model of dispensing cannabis. While this model may seem like an attractive option for some, there are several significant reasons why the legislature should exercise restraint.

First and most importantly, the "ice cream truck" model as suggested by the legislation would circumvent the legislative intent of the bill to ensure that cannabis is not available to children and those under 21 years of age. Unlike traditional dispensaries, which are typically located in discrete locations and require proof of age for entry, the "ice cream truck" model would bring cannabis directly to residential areas, whereby minors could potentially have access to products. Moreover, while this model may seem just an innocuous matter of convenience, it is ripe with several other significant risks, including theft and robbery.

In states where this model has been unsuccessfully adopted, there have been numerous reports of proverbial "weed trucks" targeted by criminals. In Los Angeles, a "weed truck" was robbed at gunpoint. In another incident, a "weed truck" was shot at by unknown assailants. These incidents highlight the potential dangers of adopting this delivery model.

These incidents illustrate the risks associated with the "ice cream truck" model of dispensing cannabis. By bringing cannabis directly to residential areas, these vehicles are more vulnerable to theft and other criminal activity, putting both customers and employees at risk. These incidents will also assuredly create negative publicity and pushback from local communities, all of which will ultimately undermine any success hoped to be realized by legalizing cannabis in Maryland.

It is important for the legislature to carefully weigh the significant potential risks and drawbacks against the very minimal benefits of an "ice cream truck" model for dispensing cannabis before implementing any policies that would prop up this ancillary business model. While the "ice cream truck" model seems like an innovative way to dispense cannabis, it is ultimately a risky and ill-advised approach that could have serious consequences for public safety and the legal cannabis industry as a whole.

By maintaining clear guidelines for the secure transportation of cannabis, we can ensure that this valuable plant is transported safely and securely, and that it is not diverted into the illicit market. This not only helps to protect the public; it also helps promote the growth and success of a legal and sustainable cannabis industry in Maryland.

We respectfully ask that you support the establishment of clear regulations for the secure transportation of cannabis in Maryland. By doing so, we can ensure that this valuable plant is treated with the respect and care that it deserves, and that it is used for its intended purpose - to improve the lives of those who use it.

Recommendations for Senate Bill 516:

- Make explicit the role that secured transport is allowed to transport last mile to the patient/consumer for dispensaries with both standard and micro licenses.
- All drivers should have to be registered as "agents" with the commission when it switches over to adult use.
- Drivers should be permitted to be independent contractors of the secured transport/delivery company.
- There should be tax incentives or rebates for maintaining a socially equitable workforce.
- Additional state tax incentives (in addition to current) for the use of electric vehicles in the delivery and transport of cannabis.
- Ensure that all dispensaries adhere to the same rules and regulations governing secure transport/ delivery licensees, when operating their own delivery services.
- The current regulations require that the transport company have the vehicles in use registered and insured by the company. We need language that ensures this model remains in effect.

Please vote favorable with amendments for Senate Bill 516. Thank you for all of your work on this important and transformative bill.

**SB516 testimony \_ Star Buds Disp.pdf**

Uploaded by: Carissa Cartalemi

Position: FWA

Hallaway LLC, dba Star Buds  
5975 Belair Rd  
Baltimore MD 21202

March 7, 2023

To: Finance, Budget & Taxation Committee – State of Maryland

RE: Senate Bill 516 - Cannabis Reform

Good afternoon, members of the Finance Committee and Chairman:

My name is Carissa Cartalemi, I am Owner/Operator of Star Buds, a medical dispensary operating at 5975 Belair Rd in Baltimore city for the last 5 years. I am here today to urge you to **support with amendments Senate Bill 516, Cannabis Reform.**

This bill needs the following amendments:

1. **Lower the # of proposed micro dispensary (delivery) licenses to 50, same as consumption lounges.** We do not yet know the full scope of these licenses therefore we should start with a lower # of them. We can always add more later. Below is a picture of an ice-cream cart style “micro dispensary” from Tennessee



Is this the type of businesses that we will see pop-up in MD? We simply don't know and until we do it's best to play it safe. Lowering the # of micro dispensaries also protects the investment of the social equity licenses.



2. **Add explicit language allowing standard dispensaries the ability to continue delivering.** My dispensary has invested a lot of money and resources into delivery, along with many other dispensaries. We would have to let staff go in the event we can no longer deliver. This matter was not addressed by the amendments proposed in HB 556 so we are depending on you to fix this now.
3. **Strike HB 556's Subtitle 3611.D.1.1 & D.1.3 which prohibits dispensaries from repackaging and rolling cannabis.** Repackaging keeps our costs low and helps independent dispensaries compete with big Multi State Operators. It is so important in fact that we have invested a lot of money in staffing and equipment to roll and repackage in house. Leaving this language in the bill would have the unintended effect of reducing our workforce by 21%. There is very little risk of diversion in dispensary repackaging. In fact if you go on [MMCC's website which lists all sanctions, there are no diversion sanctions listed involving dispensary repackaging.](#)
4. **Allow dispensary owners to operate consumption lounges.** Dispensary-operated consumption lounges are the safest way to introduce adult-use cannabis. We have knowledge of the safety and security procedures needed, as well as a team of dispensary agents with 5 years of experience dispensing cannabis. We are the people you want to be dispensing cannabis to adults 21& over for public consumption, please do not leave us out of this license-type.
5. **Amend the renewal fee language to a reasonable flat based on an anticipated increase in revenue.** Our current fee is \$40,000 annually. According to data from other states and considering how many additional licenses are being added to the market, we can expect an increase of 2-3x our current traffic/revenue. Make the annual renewal fee 2-3x what it is now.

Thank you taking the time to listen to me speak on this matter and again **please vote favorable with amendments on SB 516.**

Sincerely,

Carissa Cartalemi  
Owner Operator  
Star Buds Baltimore

**SB 0516.pdf**

Uploaded by: Carol Moyer

Position: FWA

## SB 0516 – Cannabis Reform

As a member of GASP (Group Against Smokers' Pollution and NARFE (National Active and Retired Federal Employee Association), I am requesting that the state prohibit the smoking and vaping of marijuana. Not only does marijuana contain the toxins of tobacco smoke, but it also contains 3.5 times the particulate matter and other toxins, as well as the intoxicant THC. Second-hand marijuana smoke is even more hazardous than tobacco smoke, and vaping of cannabis and other chemicals can create indoor pollution similar to that of industrial air pollution, causing respiratory and heart disease.

In reference to the intoxicating nature of THC, it is very easy to become "high" from the smoke in even a large, partially enclosed space. For example, many years ago, when marijuana was, in fact, not as powerful as it is now, I once became highly intoxicated in a large open-windowed party room while within about six feet of a small group of people smoking marijuana from a "bong". Within a couple of minutes, as I noticed the smell of the smoke, I became extremely intoxicated; my personality changed, and I immediately was very slow in my thinking and reaction time. A few hours later, when the smokers in the room said they were fine with driving home, I warned them, in my apparently slow speech, not to drive because I knew that I would never be able to drive safely in my condition. Still, the others confidently assured me that they could do so. While being driven "home," I was not able to concentrate enough to read or remember any written materials (like street signs!) and would have been able to react only very slowly to a sudden traffic hazard. Despite increased visual acuity, I lacked a sense of time or distance, had poor coordination, and simply felt happy and giddy. It is now very disconcerting to think of people in this condition driving a motor vehicle, however common that seems to be.

A document, entitled "Background on: Marijuana and Impaired Driving," on the Insurance Information Institute Web site ([www.iii.org](http://www.iii.org)), cites statistics showing how impairment resulting from intoxication from inhaling marijuana causes a significant increase in serious motor vehicle accidents and recreational use of marijuana creates increasing insurance ramifications. In keeping with my experience with this drug, a driver who is not a marijuana user, but happens to be sitting next to someone smoking it, or even just breathing fumes remaining in a car used by a marijuana smoker, could soon be intoxicated suddenly and, therefore, be in danger of a fatal accident.

Worse than my personal experience is that of a friend in college who was smoking in bed and became so high that he fell asleep with the lit joint in his hand and, thus, burned down his entire fraternity house. In classrooms also and even in the workplace, students cannot learn or perform properly. As a federal government worker at the time, I had always stayed away from places where people were using illegal drugs; however, at this one gathering far from my home on a vacation trip, I had not even been aware that marijuana was present until someone brought it into the room, and then it was too late. I almost lost my job clearance (and my government job); every five years, I had to revisit the occurrence in a reinvestigation. There could also be undesirable effects on productivity resulting from second-hand exposures on the ride to work, but also outside on foot, where the smoke is known to be extremely irritating and harmful to many people.

Needless to say, accidents, fires, poor job performance, pollution resulting in disease and – yes - climate change, and higher government spending (decimating any profits from legalizing marijuana smoking), are among so many harmful consequences from this type of smoking and vaping should certainly make us all learn from the dangers of cigarette smoking and do everything possible to prevent far worse situations for our Maryland residents.

# **SB0516 Testimony.pdf**

Uploaded by: Charles Behringer

Position: FWA

SB0516 Testimony

By: Andrew Behringer

Intro: My recommendation is to add 2 new types of Micro-Licenses that people can apply for.

i. **NURSERY LICENSE TYPE**

1. SALES
  - a. CLONES
  - b. SEEDS
  - c. EQUIPMENT
2. REFERENCES
  - a. NEW YORK POLICY
  - b. CURRENT FEDERAL LAWS

ii. **DELIVERY/TRANSFER LICENSE**

1. SOCIAL EQUITY ONLY
2. 5 YEARS
3. **DISPENSARY CAN NOT HAVE DELIVERY**

# SenateSpeech.pdf

Uploaded by: Christopher Cannon

Position: FWA

To Whom it concerns,

My name is Christopher Cannon and my wife Barbara, and I are the owners of Cannon Ball Dispensary. Cannon Ball Dispensary is a Veteran and Woman owned business. We have invested upwards of a quarter million dollars. We have served and consulted over 17,000 customers (about the seating capacity of Madison Square Garden) in just a short 20 months (about 1 and a half years) of being open. We have created an inviting environment for all who walk through the door. Our hope is always to help them on their health and wellness journey through the use of cannabinoids. Cannon Ball Dispensary has always provided customers with the top products offered by the top companies in the U.S. Hemp industry. All products sold at Cannon Ball Dispensary have been third party tested and most are certified by the U.S. Hemp Authority. We stand favorable to this bill with amendments. Certain wording in this bill would shut my business down in about 4 months, forcing me into bankruptcy and toppling our creation and dream. I understand the belief that there isn't or won't be enough room for us once Recreational hits but that just simply isn't true. I serve hundreds of medical card holders who prefer coming to my shop over the medical dispensaries because our products are much less potent, by 60% at least. If this bill is to pass, would you at least give us some time and afford us the same opportunity you are that of the medical dispensaries. We have already well-established store fronts with a customer base. With minor changes and modifications, we could meet all requirements set forth by what will be the ATCC. I have been in this industry going on 6 years. I built my livelihood around this industry and followed all laws set forth both by the state and federal government. Please have mercy on us and think about the 70 plus businesses and families this would completely bankrupt.

**Proposed Amendments to HB556**

**Page 18, line 19: (C) (1) A DELTA-9-TETRAHYDROCANNABINOL CONCENTRATION GREATER THAN [0.3%] 1% ON A DRY WEIGHT BASIS.**

**Page 69, lines 24: (A) (1) [0.5 MILLIGRAMS OF TETRAHYDROCANNABINOL PER SERVING OR 2.5 MILLIGRAMS OF TETRAHYDROCANNABINOL] 1% DELTA-9-TETRAHYDROCANNABINOL ON A DRY WEIGHT BASIS UNLES THE PERSON IS LICENSED**

**Page 70, Line 8, STIRKE : [(B) A PERSON MAY NOT SELL OR DISTRIBUTE A CANNABINOID PRODUCT THAT IS NOT DERIVED FROM NATURALLY OCCURRING BIOLOGICALLY ACTIVE CHEMICAL CONSTITUENTS. ]**

# **SB 516\_Cannabis Reform\_EMS Board\_Support with Amen**

Uploaded by: Clay Stamp

Position: FWA





*State of Maryland*  
**Maryland Institute for Emergency Medical Services Systems**

Wes Moore  
Governor

Clay B. Stamp  
Chairman, EMS Board

Theodore R. Delbridge, MD, MPH  
Executive Director

## **Senate Bill 516 Cannabis Reform**

### **State EMS Board Position: Support with Amendments**

**Bill Summary:** Among other things, SB 516 sets up the framework to oversee the regulation of adult-use cannabis and establishes a licensing framework and graduated sales and use tax for the regulated sale of cannabis in Maryland.

#### **Rationale:**

- The implementation of cannabis reform in Maryland will likely impact public health and public safety. As many as 57 million instances of driving under the Influence of Cannabis are projected in Maryland each year, as well as other negative health outcomes for individuals, e.g., cannabis-induced suicidal ideations and psychotic or paranoid feelings<sup>1</sup>. In states where cannabis was legalized coupled with retail sales, the Insurance Institute for Highway Safety found that the rate of car crashes increased by nearly 6% and fatal car crashes increased by 4%, although changes in crash rates varied by state<sup>2</sup>.
- There is a clear nexus between the projected increase in adult use of cannabis and potential use of Maryland's emergency medical services (EMS) system.
- Certain components of the State's EMS system are supported by Maryland EMS Operations Fund (MEMSOF)<sup>3</sup>:
  - Maryland State Police Aviation Command
  - Maryland Fire & Rescue Institute of the University of MD
  - R Adams Cowley Shock Trauma Center
  - Maryland Institute for EMS Systems (MIEMSS)
  - The Senator Amoss Fire, Rescue and Ambulance Fund that provides monies for the purchase of fire and rescue equipment and capital building improvements.
- The Department of Legislative Services DLS has projected MEMSOF insolvency in FY24<sup>4</sup>. MEMSOF is currently supported by a \$29 biennial vehicle registration fee surcharge that has needed to be increased every 10 years since it is not sensitive to inflation. The last increase was in 2013.
- The amendment will permit a portion of the sales and tax revenues associated with the adult-use cannabis program should be used to support the Maryland EMS System funded through the MEMSOF.

### **State EMS Board Supports SB 516 with Amendments and Asks for a Favorable Report**

<sup>1</sup> Cannabis Public Policy Consulting. Future Adult Use Cannabis Demand & Predictive Modeling – A behavioral Economic Study. January 5, 2023. See: [https://dlslibrary.state.md.us/publications/Exec/MDH/NMLMCC/HG13-4401\(b\)\\_2022\(d\).pdf](https://dlslibrary.state.md.us/publications/Exec/MDH/NMLMCC/HG13-4401(b)_2022(d).pdf)

<sup>2</sup> Farmer CM, Monfort SS, Woods AN. Changes in Traffic Crash Rates after Legalization of Marijuana: Results by Crash Severity. J Stud Alcohol Drugs 2022 Jul; 83(4): 494-501.

<sup>3</sup> § 13-955 Transp. Art., MD Code Ann.

<sup>4</sup> See: [2024FY - Operating Budget Analysis - MEMSOF\\* - Maryland Emergency Medical System Operations Fund](#)

AMENDMENTS TO SENATE BILL 516

(First Reading File Bill)

On page 4, following line 11, insert new paragraph

“BY ADDING TO  
ARTICLE – TRANSPORTATION  
SECTION 19-355  
ANNOTATED CODE OF MARYLAND  
(2020 REPLACEMENT VOLUME AND 2022 SUPPLEMENT)”.

On page 80, following line 19, insert new paragraph

“(5) 1.0% TO THE MARYLAND EMERGENCY MEDICAL SYSTEM OPERATIONS FUND  
ESTABLISHED UNDER § 13-955 OF THE TRANSPORTATION ARTICLE;”.

On page 85, following line 27, insert

**“Article – Transportation  
13-955.**

(a) In this section, “Fund” means the Maryland Emergency Medical System Operations Fund.

(b) (1) There is a Maryland Emergency Medical System Operations Fund.

(2) The Comptroller shall administer the Fund, including accounting for all transactions and performing year-end reconciliation.

(3) The Fund is a continuing, nonlapsing fund which is not subject to § 7–302 of the State Finance and Procurement Article.

(4) Interest and earnings on the Fund shall be separately accounted for and credited to the Fund, and are not subject to § 6–226(a) of the State Finance and Procurement Article.

(c) The Fund consists of:

(1) Registration surcharges collected under § 13–954 of this subtitle;

(2) All funds, including charges for accident scene transports and interhospital transfers of patients, generated by an entity specified in subsection (e) of this section that is a unit of State government; and

(3) Revenues distributed to the Fund from the surcharges collected under § 7–301(f) of the Courts Article; AND

(4) REVENUES DISTRUBUTED TO THE FUND UNDER § 2-1302.2(5) OF THE TAX – GENERAL  
ARTICLE.

(d) Expenditures from the Fund shall be made pursuant to an appropriation approved by the General Assembly in the annual State budget or by the budget amendment procedure provided under § 7–209 of the State Finance and Procurement Article, provided that any budget amendment shall be submitted to and approved by the Legislative Policy Committee prior to the expenditure or obligation of funds.

(e) The money in the Fund shall be used solely for:

(1) Medically oriented functions of the Department of State Police, Support Service Bureau, Aviation Command;

(2) The Maryland Institute for Emergency Medical Services Systems;

(3) The R Adams Cowley Shock Trauma Center at the University of Maryland Medical System;

(4) The Maryland Fire and Rescue Institute;

(5) The provision of grants under the Senator William H. Amoss Fire, Rescue, and Ambulance Fund in accordance with the provisions of Title 8, Subtitle 1 of the Public Safety Article; and

(6) The Volunteer Company Assistance Fund in accordance with the provisions of Title 8, Subtitle 2 of the Public Safety Article.”.

# **MD Senate Testimony Viola Final.pdf**

Uploaded by: Dan Pettigrew

Position: FWA

**Viola Brands Written Testimony  
SB0516 Hearing – Thursday, March 9, 2023**

Viola Brands is the **country's only black-owned multi-state operator with licenses in five states and Canada**. Founded by cannabis veteran Daniel Pettigrew and former NBA star, **Al Harrington**, Viola has **over 10 years' experience in the cannabis industry**. Our mission is to increase minority participation and ownership while positively impacting and reinvesting into communities most affected by the war on drugs. Here, in Maryland, we are **one of the HB2 pre-approved cultivators** and are eager to bring our award-winning products to Maryland consumers.

We appreciate the efforts of the Maryland General Assembly and want to thank Senators Feldman and Hayes for their leadership on this important piece of legislation. This is not an easy task, and we recognize the challenges are serving multiple audiences while still delivering an equitable, economically stable, and operationally viable cannabis industry. While we agree with several provisions in SB0516, including the program start date of July 1, 2023, please consider the following areas of concern.

**Since HB2 awards were made in 2020, it has been a very difficult, and expensive, market to raise capital for licensed cannabis operations.** This is of note given our status as an established multi-state player and minority-owned business. Thus, we caution this body to recognize that like us, many of the HB2 pre-approved licensees are not yet operational due to this lack of access to capital issue. **This constraint is not ceasing and if established players like us are struggling, it will be virtually impossible for start-ups to obtain the necessary financing to launch a cannabis business across any type of license.**

**1. DISPENSARY OWNERSHIP**

**We do not agree with the proposed reduction of dispensary ownership from four to two licenses.** This change only removes generational wealth creation for diverse entrepreneurs who may look to their home state to build local chains. This measure also removes the consumer from the conversation limiting their choice for a meaningful retail experience.

As the state looks to increase diverse ownership in the cannabis industry, **we propose that up to four dispensary licenses be allocated to all HB2 pre-approved cultivators.** Not only would a dispensary award, align with 2016 cultivation awards, this **would provide up to 16 minority-owned dispensary operations**, dramatically **increasing inclusive participation** and creating a model in Maryland other states could emulate.

With the above considered, we ask that the proposed ownership reverts to the existing law:

**(I) FOR STANDARD LICENSES AND MICRO LICENSES:**

- 1. ONE GROWER LICENSEE; WITH GROWER LIMITED TO ONE PHYSICAL LOCATION REGARDLESS OF CANOPY SIZE.**

2. ONE PROCESSOR LICENSEE; AND
3. NOT MORE THAN ~~TWO~~ **FOUR** DISPENSARY LICENSEES;

## 2. CANOPY & LICENSING

**The proposed canopy of 300,000 sq ft is in far excess of what the Maryland market will require and will only lead to oversupply, price compression and diversion to the illicit market.** As an operator in five states, we have seen this mistake play out multiple times over and caution this body to avoid similar fate. The legal cannabis industry requires a **delicate balance of supply and demand to ensure business can be a vehicle for robust job creation, meaningful tax revenue and generational wealth creation for entrepreneurs.**

It is important to also note that the **stated canopy number of 300,000 sq ft sends a negative shockwave to the investor community shutting off the pipeline of capital** for existing and future licensees. This issue is only further compromised by the total number of licenses proposed in the bill. The canopy and license numbers are a recipe for economic disaster, as such investors will not support operations in this State.

To best ensure a diverse, equitable and prosperous program, we recommend the following changes:

Page 37 lines 4-6 (*and all other appearances in the bill*)

(C)(A)(1) A STANDARD LICENSE AUTHORIZES THE HOLDER OF THE LICENSE:

(I) FOR GROWERS, TO OPERATE MORE THAN 10,000 SQUARE FEET, BUT NOT MORE THAN ~~[300,000]~~ **100,000** SQUARE FEET, OF INDOOR CANOPY, **GREENHOUSE CANOPY**, OR ITS EQUIVALENT, AS CALCULATED BY THE DIVISION.

## 3. TRANSFER OF OWNERSHIP

**The current draft removes a licensee's ability to transfer or sell their license for five years – this should be removed.** The cannabis industry is a very volatile space and locking up an operator for five years could create more economic harm than help. **With a focus on generational wealth creation, not allowing a licensee to exit their business at a time that is most beneficial to them dramatically restricts their return on investment.** Consider that with a five year lock out, licenses will be eligible for sale, at the same window of time, further reducing the value a licensee has created. **We believe the General Assembly is looking to build wealth for new and diverse licensees and the proposed language would be harmful to this goal.**

With above considered, we ask that you remove the following language:

Page 57 Lines 4-7

~~(C) (1) A CANNABIS LICENSEE, INCLUDING A CANNABIS LICENSEE WHOSE LICENSE WAS CONVERTED IN ACCORDANCE WITH § 36-401 OF THIS TITLE, MAY NOT TRANSFER OWNERSHIP OR CONTROL OF THE LICENSE FOR A PERIOD OF AT LEAST 5 YEARS FOLLOWING LICENSURE.~~

#### 4. ADVERTISING

This **bill contemplates increasing advertising restrictions** with the addition of adult use market. The medical program has **existed for five years under a very reasonable set of advertising regulations and without issue**. Further restricting advertising will **inhibit new and diverse operators from effectively and appropriately marketing their businesses**, particularly given they will be competing against established players.

Therefore, we kindly request that proposed policy is replaced with existing regulations:

Page 65 Lines 16-18

~~(4) ENGAGE IN ADVERTISING BY MEANS OF PLACING AN ADVERTISEMENT ON THE SIDE OF A BUILDING OR ANOTHER PUBLICLY VISIBLE LOCATION OF ANY FORM, INCLUDING A SIGN, A POSTER, A PLACARD, A DEVICE, A GRAPHIC DISPLAY, AN OUTDOOR BILLBOARD, OR A FREESTANDING SIGNBOARD.~~

**Current guidance on signage:** DO NOT place ads within 500 feet of a: School, Licensed Child Care Facility (including registered home childcare centers), Substance Abuse or Treatment Facility, Library or Recreation Center, Public Park, or Playground (This does not apply to ads placed on property owned or leased by a grower, processor, or dispensary).

Over the past 10 years, Viola has built successful cannabis operations across the US and Canada. **As an HB2 pre-approved cultivator**, we are excited to bring our brand to Maryland and we hope our operations will be given the same level of focus and respect in this new program as they were in the creation of House Bill 2 and subsequent awards. **We represent a meaningful expansion of minority participation in this State. We ask that the General Assembly assures legislation that allows us and future licensees to realize this economic opportunity.**

For more information, please contact:

**Daniel Pettigrew**

**CEO, ViolaMD**

**Dan@thevillagebrands.com**

# **VSS Testimony on Adult-Use Bill.pdf**

Uploaded by: Daniel Smith

Position: FWA

Submitted to:

Maryland Senate Judicial Proceedings Committee

Annapolis, MD – March 9, 2023

Testimony from VS Strategies

Daniel Smith, Vice President

Support with Amendment: Cannabis Reform (SB 516)

### **Introduction**

[VS Strategies](#) (“VSS”) is a policy and public affairs consulting firm specializing in cannabis policy. We are experts in cannabis policy whose clients include government bodies, trade associations, businesses, and other organizations seeking to shape public opinion and implement the most effective cannabis laws and regulations. For more than a decade, our team members have been changing minds and changing laws, rolling back prohibition policies, and advancing cannabis policy in a dynamic and responsible manner.

We want to commend Senator Feldman and Hayes for their time and effort in drafting this important piece of legislation and for taking leadership on this issue. VS Strategies submits this statement in support of SB 516 with an amendment.

### **Proposed Change**

We recommend amending the language in 13-4505(F)(6) to include “or impairment from cannabis” after “cannabis levels” as follows:

(6) Purchasing technology proven to be effective at measuring cannabis levels or impairment from cannabis in drivers.



## Reasoning

While cannabis-impaired driving is not an issue specific to Maryland, it is one Maryland can take a lead on by embracing cutting-edge technologies that can provide immense value to law enforcement. There are a variety of scientific reasons why blood, breath, and other biological tests are not apt to measure cannabis impairment. Actual cannabis impairment is based on a variety of factors like frequency, method, and amount. For example, consuming cannabis edibles will often cause delayed psychoactive effects beginning approximately thirty to sixty minutes after consumption. There is no consensus on what THC level results in actual impairment, so using biological samples to measure THC concentration is counter to providing objective ways to determine driver impairment.

These emerging technologies, which we have been extremely impressed by, directly measure impairment in a driver. Cognivue, an applied science company, has been a leader in developing such products. Cognivue is adapting their FDA-cleared technology that detects cognitive decline and dementia to help local law enforcement objectively measure whether a driver is cognitively impaired. Cognivue is a self-administered, personalized, non-invasive tool to assess cognition in only five minutes. Their technology is the most promising we have seen thus far that would immensely help law enforcement keep our roads safe.

Under the current language of 13-4505(F)(6), technologies that directly test for cognitive impairment would not be eligible for the Public Health Fund as they do not measure “cannabis levels in drivers.” We feel that excluding such promising technologies from being purchased for local law enforcement would be a mistake, especially considering they are more objective and reliable than blood- or breath-based tests.

**For these reasons, we urge the committee to amend the language in 13-4505(F)(6) to allow devices that measure cognitive impairment to be eligible.**

# **Carrington 2023 Testimony SB516 Cannabis Reform.pd**

Uploaded by: Darrell Carrington

Position: FWA



**CARRINGTON & ASSOCIATES, LLC**

*Integrity.Passion.Results*

*Since 2006*

## **SB516 – Cannabis Reform**

### **FAVORABLE WITH AMENDMENTS**

Carrington & Associates, LLC, requests a FAVORABLE report for SB516 with amendments. This bill will rename an agency, establish a legal framework for adults 21, and over to purchase cannabis at state licensed businesses, creates a social equity fund, comprehensively addresses the myriad of ancillary issues such as banking.

On behalf of our clients, we would like to thank everyone for being so generous with their time, and taking on the herculean task of creating a medical, and adult use industry with only the mistakes that other states have made to guide the Committees. While no bill is perfect, this is a very good first step to setting Maryland as the national model for creating a functioning, and equitable cannabis industry.

One of the suggested amendments, which we have named, the “*Jefferson Amendment (as in George & Wizzie)*,” is as follows:

**“Have lived in a disproportionately impacted area for at least 5 of the 30 years immediately preceding the submission of the application:”**

Additionally, we respectfully ask this Committee to right a wrong that has never been addressed. The following language would apply to the 3 groups we identified that would be considered in this amendment:

**"If you are designated as an alternate by the MMCC, have maintained at least 50% of the original ownership, and at least one member is a Maryland resident, one can re-apply, without a fee, to the state authority overseeing the implementation of this statute, and receive immediate Stage One "Pre-approval," with 365 days to become operational."**

For the stated reasons, we ask for a FAVORABLE report on SB516 with the amendments suggested. Please contact Darrell Carrington at [darrell.carrington@verizon.net](mailto:darrell.carrington@verizon.net), if you have questions, or would like additional information.

# **Senate Bill 0516 The Cannabis Reform Act.pdf**

Uploaded by: Dawn Gordon

Position: FWA

Written testimony for Senate Bill 0516 Favorable with Amendments

Dear Senators Feldman, Hayes and Mr. Will Tillburg,

I am the owner of Fingerboard Farm, an agritourism farm- stay, located in Frederick County Maryland. My business encompasses research and development of sustainable agriculture focusing on carbon sequestration, healthy soil building through green waste reversal technology. My Federal, State and Frederick County Innovation projects and grants are based on Hemp cultivation and post extract of solventless hemp plant material that is used to create carbon biochar. My efforts have been awarded from Frederick Economic Development as a top 50 business in Frederick County in innovation. I am a fifth year Hemp FarmHer, a woman owned vertically integrated cultivation, extraction/formulation and farm market sales business. My CBD and Hemp Flower products are sold in six Maryland Medical Marijuana Dispensaries. My flower has been extracted and used as a CBD ingredient for a Maryland based Multi-State Cannabis Corporation. My flower has been extensively tested for potentially dangerous contaminants such as heavy metals, non organic chemicals, mycotoxins, microbials and residual solvents, all passing at the medical grade acceptable amounts. My focus is on cultivation of the cannabis sativa plant and creating plant based naturally occurring products from cannabinoids that did not exceed .3 THC limit. My products are not intoxicating and are not created in a pharmaceutical process that uses acetate.

It is imperative that scientific research continues and is required to expound our understanding of the human endo-cannabinoid system. The banning of full spectrum hemp derived will put an end to my business and all Maryland Hemp Farms. We do not have equipment to isolate CBD and remove the THC, we do however have the ability to grow CBD using genetics that are low in THC and high in CBD. We must be able use full spectrum naturally occurring hemp derived minor and major cannabinoids for the industry to continue. It is my position that the future of Hemp, Medical and Adult Use cannabis products do not allow for any acetate in the formulation of any products manufactured and sold in the State of Maryland.

I publish a growing 2,000 person Hemp/CBD blog newsletter. I've formulated a wide selection of CBD and hemp derived products found on my e-commerce website [www.fingerboardfarm.market](http://www.fingerboardfarm.market) It's crucial that I am able to grow, extract, produce, sell as well as purchase from other manufacturers, all forms of products in any size container that do not exceed the Federal or State limit of .3% THC. I request that any extract sold in Maryland from my legal flower that has been approved by a DEA certified agent and issued a Certificate of Analysis to PASS, is approved for sale in any form for human consumption in any size container, as long as it is within the proposed request to not allow for the chemical process of using acetate to compound and formulate the end product and is below the federally legal .3% THC. This is the solution to remove chemically compounded synthetic products.

I am filling a very important need for many people who don't want to get high, but want the benefits of full extract cannabis at a percent that is non intoxicating. I have personally invested over \$200,000 into building my Hemp business and continue to reinvest proceeds back into my sustainable agriculture farm. My mission to heal the earth and humankind one hemp plant at a time began with my personal health crisis. All products that I sell, I personally consume, test and recommend to others to fit their specific need or their request to stock in my store. The stigma about Cannabis is slowly fading and now should be a free market with the demand coming from the consumer. It is not possible for my business to continue operation unless I can continue as I have over the last five years. It is crucial for my farm to be able to operate as we have, legally and with passion for top quality flower and products.

My deep concerns about the proposed language in the Cannabis Reform Act, it aims to lower the acceptable Delta-9-Tetrahydrocannabinol concentration below the federally threshold and placing a cap on THC at 0.5mg per serving and 2.5mg per package for those without a recreational or Medical dispensary cannabis license. This language is not only misleading but it would render hundreds of products that are currently protected under federal law illegal. As written, this bill would have a devastating impact on the hemp industry in Maryland and would result in the closure of hundreds of family-owned, small, and minority owned businesses like mine. It would destroy an industry overnight without any input from industry participants. The Hemp Industry in Maryland has worked hard to create common sense regulations for these types of products in accordance with the recommendations from the Maryland Medical Cannabis Commission's study group that was formed last year to study these products specifically. We stand ready to support amendments that would protect public safety as well as the industry's ability to participate in the free market. We want regulation, but we do not want to lose our businesses which are protected by federal law due to the implementation of the recreational cannabis industry. A collaborative effort between the hemp and cannabis industry can and should exist as that is what is best for our industry as well as what is best for the consumers of these products.

In addition, the proposed cap on THC at 0.5mg per serving and 2.5mg per package without a legal cannabis license will make it impossible for small hemp businesses to comply. This legislation would have a profound impact on the hemp industry in Maryland and would result in the closure of hundreds of small family-owned businesses of which over 30% are minority owned. There is already a real climate of social equity in the hemp industry that would be eradicated by this original language as written. The proposed THC cap, in particular, would render all hemp full-spectrum CBD products illegal, despite their federally legal status and widespread consumer use. Currently these products are even being sold in grocery stores and pharmacies across the state.

Establishing limits like these on any products containing cannabinoids should be based on science. Given the past prohibition of hemp and cannabis in general, we lack the important research needed to make these science-based determinations. Making these determinations at this point would be pure speculation. Full-spectrum CBD products contain trace amounts of THC, below 0.3%, which is considered to be within the legal limit under federal law. However, this proposed cap of 0.5mg per serving and 2.5mg per package would effectively move the threshold to 0.05% and make these products significantly less effective and illegal, removing them from the free market and limiting consumer choice by forcing consumers to buy them from an adult use cannabis facility as opposed to a CBD specialty store, pharmacy, or grocery store.

The fact that these adult-use cannabis licenses will not be available until next year only adds to the hardship faced by our small businesses. This bill would not only shut down many businesses, but it would also remove their ability to build the capital needed to get involved in the adult-use cannabis industry which would be required in order to continue offering these products in accordance with the law. This language as written would force hemp businesses to participate in an industry that many of them do not want to participate in. The hemp industry plans to stay in business during and through the implementation of recreational cannabis. The launch of Adult-Use Cannabis will not render us an obsolete industry as our customer base is much different from the traditional marijuana user. We plan on being here to stay.

Furthermore, this legislation would criminalize a federally legal industry while legalizing a federally illegal one, making it an ill-advised approach to the issue. This language would further consolidate the cannabis industry and destroy the small business community in the hemp industry which I'm sure is not the intention of the legislature. We ask that language which aims to place a cap on THC at 0.5mg per serving and 2.5mg per package for those without a recreational cannabis license be amended to mirror the federal law which limits these products to 0.3% of Delta 9 THC on a dry weight basis. This amendment will ensure that the hemp industry in Maryland can continue to thrive and not be placed at a disadvantage when compared to other states. Please do not kill our industry that we worked so hard to build. The intent and goals behind the implementation of the recreational cannabis industry would still be accomplished without the need to crush our industry in the process.

I urge you to reconsider the language in this bill and to consult with the industry before enacting legislation that would have such a damaging impact on small and minority-owned businesses.

Sincerely,

Dawn Furman Gordon CEO

Fingerboard Farm

3016748010

dawn@fingerboardfarm.market

**SB0516.pdf**

Uploaded by: Dawn Marie Steenstra

Position: FWA

SB0516  
Favorable With Amendments

Dawn-Marie Steenstra  
1749 Algonquin Road Frederick, Maryland 21701  
410-967-3183

Dear Esteemed Senators,

I am currently a Clinical Director of Dispensaries for Maryland representing the National Clinical Director Consortium (NCDC) since 2021, and a Clinical Cannabis Nurse for over a decade. I oversee hundreds of patients in multiple stores to evaluate their health conditions and distressing symptoms from a trained clinical / medical viewpoint. I also perform medication reconciliation to determine safety/side effects when taken with other pharmaceuticals and expected outcomes of cannabis for their conditions. For 2 years I submitted detailed reports on the complicated questions and problems patients were working through utilizing cannabis and also provided the science and studies behind my answers to the MMCC. As a community nurse in the field for 24 years who has been studying cannabinoid therapeutics for the past 12 years, it is important for the Legislature to understand that although in the adult use market there will be plenty of recreational customers, there are thousands of prospective patients that wish to use this alternative to avoid health care crisis and increase their quality of life.

In evaluating other states who have Adult Use Programs, the very patients to whom the entire cannabis industry is built upon are being left without critically needed guidance and formulations created to help their conditions. I care for autistic and epileptic children, middle aged cancer, pain and neurologically challenged adults to our most underserved population of the elderly. Our elderly are actively looking to decrease harm and polypharmacy in their daily lives. This population alone warrants oversight from Clinical Directors. These patient populations deserve guidance from experienced clinicians, continuity of care and effective low THC product choices over the long term. The Clinical Director needs to be openly advertised by the state program as well as on a dispensary level as the NCDC found many dispensaries discouraging utilization during our medical program rollout. In an informal poll within the Cannabis Community in Maryland FB we found that out of 100 patients, 81 had no idea that a medical person was available to discuss their case and concerns.

As a nurse, I believe it critically important that Clinical Directors continue to be required and available for consult with all Maryland dispensaries whether medical or adult use. The guidance of medically trained clinical directors can mean the difference in properly using cannabinoids as the science dictates with success and a customer who gives up because of negative experience and never walks into a dispensary again. Having this additional safety net available to patients and required of dispensaries will also lead to decreased calls to Poison Control and less Emergency Room visits.

Throughout my role as Clinical Director of multiple dispensaries, I have had to teach patients how to safely wean off of higher THC due to negative outcomes, and recently many of the stores I serve stopped selling hemp derived high CBD FULL SPECTRUM products. By FAR, the teaching and clinical guidance as to LOWER ratio cannabis products and flower and personal titration teaching with THC were the most frequent. Keeping ratioed medicine available for patients with lower THC is also important for most complicated conditions. Having lower THC content under 15% in flower to reduce negative outcomes should also be considered. **Science is showing that exceedingly high concentrates may be exacerbating the issue of cannabis use disorder nationally.** 10% or 10 mg. cap in products is much too low in consideration of lowering potency. Science is showing that MODERATE levels of cannabinoids work best together for most conditions. D9THC in flower truly does not need to be over 35%. In addition, a cap as low as 10% or 10 mg. serving size would cause undue financial burden on patients



already utilizing cannabis for conditions that is not covered by insurance in any way presently. Low THC caps mean more product must be purchased for the same efficacy.

In reviewing the legislation, please grandfather in all approved Clinical Directors from the medical program we already serve as well as REQUIRE Clinical Directors be available to all NEW adult use dispensaries. This will lead to a more robust market, enlist the public trust, fewer calls to POISON CONTROL and less Emergency Room visits for overconsumption events. Our adult use program rollout will be considered the most responsible in the country where many other states have failed to care for the previous medical patients their programs served.

I support SB0516 with the following considerations and amendments:

- Nurses are NOT qualified to be Certifying Providers ( Page 21 10 (IV) ) to give cannabis recommendations, however, they have been accepted as Clinical Directors as of 2021. **Please REMOVE Registered Nurses as Certifying Providers. Please ADD Certified Registered Nurse Practitioners and Physicians Assistants who actually have prescriptive powers.** Please grandfather in ALL Clinical Directors as approved that are nurses.
- **ENFORCE and EXTEND the regulatory role of “Clinical Directors” to all dispensary types to mitigate unnecessary healthcare expenditures related to emergency room visits and adverse events with adult use enactment. ENFORCE dispensaries in utilizing these directors, especially in educating the elderly and those with complicated conditions.**
- **Uphold regulation related to the reporting of adverse events and recalls as this is imperative to consumer safety and harm reduction. The overseeing agency must maintain communication with “Clinical Directors”.**
- **Require all license types to produce/offer a minimum of non-smokable and low or non-impairing cannabis, cannabis products with lower THC including ratios of CBD and minor cannabinoids to sustain the current medical availability and offer minimally intoxicating options for new consumers. Full spectrum products are critically important to patients.**
- Imprisonment of any kind for minor cannabis offenses should be stopped. Civil fines make sense, but unless someone is in possession of pounds of cannabis with intent to distribute, arrests should not be happening. For caregivers working with smaller amounts, working to assist patients and consumers to utilize their cannabis in the best way, arrangements or permits for such as a “CAREGIVER COLLECTIVE”, should be considered when making laws that lean towards unfair incarceration.
- **Considering hemp page 69 line 23 (A) (1). Please reconsider and STOP this action:**
- Hemp products are capped already at .3% THC by Federal Law. These companies should concentrate on WHOLE FLOWER products without isomers or additional terpenes added. Whole flower, FULL SPECTRUM hemp derived products are critical to have available for many medical conditions. Raising the Delta 9 THC limit to 1% would be helpful for farmers as well. Below 1% is still non impairing and of great benefit to actual patients in our program. Maryland patients are utilizing many Maryland hemp derived products very well. **Discontinuing current products or lowering D9THC more would be devastating to seriously ill suffering patients.**

- 1. We created a medical cannabis program to help those with qualifying conditions access safe cannabis to get relief from their symptoms and improve their quality of life. We are succeeding!
- 2. When using cannabis medicinally, most studies recommend beginning with TYPE III (HIGH CBD) cannabis due to its safety profile, non-intoxicating and then titrating THC as needed based on conditions. Once a patient is stabilized successfully, they may begin working with higher THC titration through the dispensary, but this takes time.
- 3. These products do not cause the intoxicating effects like Type I (HIGH THC) or Type II (equal parts THC & CBD) cannabis but do provide relief for many of the patient's symptoms and there will be terrible outcomes if these products are no longer available. The SCIENCE confirms efficacy, especially in epilepsy, inflammatory processes and pain management.
- **Efforts should be made to FORBID the manufacturing and public sale of synthetically created intoxicating/psychoactive cannabinoids such as D8, D10 & THCO and sold in the general marketplace.** These are a public healthcare issue due to "gray areas" of hemp legalization due to the Schedule 1 federally, and a danger to the public until safety and efficacy are proven.

I implore you to keep these factors in mind during hearing regarding SB 0516.

Respectfully submitted,

Dawn-Marie Steenstra LPN, SDC, QA, SCC  
Clinical Director/ CEO  
Entourage Consulting Services



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National Clinical Director Consortium



**SB516\_MLSC\_FWA.pdf**

Uploaded by: Deb Seltzer

Position: FWA



# MLSC

MARYLAND LEGAL SERVICES CORPORATION

IOLTA - INTEREST ON LAWYER TRUST ACCOUNTS

**Testimony Concerning SB 516  
“Cannabis Reform”  
Submitted to the Senate Finance Committee  
Hearing Date: March 9, 2023**

**Position: Favorable with Amendment**

**Contact: Deb Seltzer, Executive Director, 410-576-9494 x1009, dseltzer@mlsc.org**

Maryland Legal Services Corporation respectfully requests an amendment to SB 516 to direct a portion of cannabis sales and use tax revenue to the MLSC Fund. The MLSC Fund was created by the General Assembly to fund important civil legal services, and directing revenue in this manner would play an important role in helping the General Assembly reach its social equity goals.

MLSC’s mission is to ensure low-income Marylanders have access to stable, efficient and effective civil legal assistance through the distribution of funds to nonprofit legal services organizations. It currently funds 41 organizations to work toward that mission across the entire state. The Maryland General Assembly created MLSC in 1982 to administer the state’s Interest on Lawyer Trust Accounts program, and since that time MLSC grantees have assisted approximately 4 million Marylanders with a wide variety of civil legal needs.

MLSC’s grantees serve the very communities most impacted by cannabis prohibition and seek to address a range of legal issues that have resulted from cannabis enforcement and community disinvestment, such as criminal record expungement, unstable housing, debt problems, barriers to employment and more. Like cannabis enforcement, civil legal issues tend to disproportionately impact communities of color. In fiscal year 2022, more than 75% of grantees’ clients were people of color.

At the same time, our nonprofit grantees have had difficulty recruiting and retaining staff in light of the current tight labor market. Nonprofits have traditionally offered lower salaries than their for-profit and government counterparts, and that gap has recently grown. MLSC has long invested in the operations of our grantees, helping them keep the lights on and keep the lights of justice burning. We recognize that the staff is the heartbeat of civil legal aid, and that client communities are best served by well-staffed, well-trained, stable organizations. In fact, thanks to strong IOLTA revenue, we have just made supplemental grants targeted at bringing grantee salaries closer to that of other publicly funded, public interest attorneys in Maryland.

However, IOLTA revenue is based on interest rates and will not remain at its current level forever. While rates are projected to be high for another year or two, an additional, stable funding source will be needed to maintain that funding when rates begin to fall. The timing of the implementation of the cannabis sales and use tax offers an opportunity to continue that investment in civil legal aid. By directing a portion of the tax revenue to the existing MLSC Fund, the General Assembly will help nonprofit legal services providers recruit and retain their staff, thereby helping thousands of Marylanders every year address their economic security, family stability and physical safety.

MLSC is grateful for the tremendous amount of thoughtful work that went into developing SB 516 and proposes that a civil legal aid funding amendment would further the goals of the State. We urge favorable consideration of this amendment.

**Proposed amendments:**

On page 80, after line 19, insert:

**“(5) 10% to the Maryland Legal Services Corporation Fund established under § 11-402 of the Human Services Article;”**;

and in lines 20 and 23, strike “(5)” and “(6)”, respectively, and substitute “(6)” and “(7)”, respectively.

On page 85, after line 27, insert:

**Article – Human Services**

11-402.

(a) There is a Maryland Legal Services Corporation Fund.

(b) The Administrative Office of the Courts shall administer the Fund.

(c) The Fund is a special, nonlapsing fund that is not subject to § 7-302 of the State Finance and Procurement Article.

(d) The Fund consists of:

(1) money deposited to the Fund from the surcharge assessed in civil cases under §§ 7-202 and 7-301 of the Courts Article;

(2) money distributed to the Fund under § 17-317 of the Commercial Law Article;

(3) interest on attorney trust accounts paid to the Fund under § 10-303 of the Business Occupations and Professions Article; [and]

**(4) REVENUE DISTRIBUTED TO THE FUND IN ACCORDANCE WITH § 8 2-1302.2 OF THE TAX – GENERAL ARTICLE; AND**

[(4)] (5) investment earnings of the Fund.

(e) The Corporation shall use the Fund to provide funding for civil legal services to indigents under this title.

(f) The Treasurer shall:

1. invest and reinvest the Fund in the same manner as other State funds;

and

2. credit any investment earnings to the Fund and may not charge interest against the Fund if the average daily net cash balance for the month is less than zero.

(g) Expenditures from the Fund shall be made in accordance with an appropriation requested by the Judicial Branch of the State government under § 7-108 of the State Finance and Procurement Article and approved by the General Assembly in the State budget or by the budget amendment procedure under § 7-208.1 of the State Finance and Procurement Article.

**SB0516\_Asike\_FWA.pdf**

Uploaded by: Deondra Asike

Position: FWA



**Written Testimony for the Senate Finance Committee  
Maryland General Assembly  
In Support of SB0516 with amendments**

***March 8, 2023***

Respectfully submitted by:

**Deondra Asike, MD**

*Maryland Spokesperson, Doctors for Cannabis Regulation  
Clinical Associate of Anesthesiology, Johns Hopkins School of Medicine  
Founder, National Pain ReLEAF LLC*

Thank you Chairwoman Griffith and honorable members of the Senate Finance Committee for the opportunity to provide testimony supporting SB0516 with amendments. My name is Dr. Deondra Asike, MD and I am a Maryland spokesperson for Doctors for Cannabis Regulation ( [DFCR.org](https://dfcr.org) ), the nation's first physician organization dedicated to legalization, taxation, and -above all- the effective regulation of cannabis for adults.

A bit about myself, I am a military veteran of Operation Enduring Freedom and practicing anesthesiologist and pain management physician in Maryland. I am also a certifying provider with the Maryland Medical Cannabis Commission and constituent of District 11B where I reside with my husband and two toddler-aged children. I am a supporter of the national organization, Americans for Safe Access, who on February 3, 2023, released their "2022 State of the States Report"<sup>1</sup> providing an analysis of medical cannabis access in the United States. This report offered patient perspectives of the medical cannabis programs while highlighting key issues affecting them and their access to cannabis. I along with others am pleased to learn that Maryland's medical cannabis program ranks highest in the nation. This notable recognition reflects the Maryland General Assembly's commitment to creating meaningful legislation centrally focused on health equity and public safety. The intent of my written testimony is to express my strong support of SB0516 and to offer suggestions for amendments to strengthen its language, enhance public health and safety while simultaneously elevating the success of the existing medical program beyond providing tax exemptions for medical grade products.

First, with a primary focus on public safety, it is important that this piece of legislation clearly articulate an expectation for the highest standards of safety and standardization in product labeling and packaging. To decrease the incidence of accidental ingestion, SB0516 should go beyond the requirement for child proof packaging and require the adoption of a universal product symbol such as the International Intoxicating Cannabinoid Product Symbol (IICPS). IICPS has been adopted in New Jersey, Vermont, and Montana. It is simple, overcomes language barriers, promotes future interstate commerce, and is inexpensive to produce.

Second, as a physician with extensive clinical experience, I am uniquely aware of the role fact-based education plays in positive health outcomes. SB0516 language should establish a requirement for Annual Responsible Vendor Training to specifically address the health effects of cannabis in its curriculum. I recommend that SB0516 clarify educational requirements by license designation so that those interacting most closely with consumers (e.g budtenders) are required to possess a greater fund of knowledge pertaining to both the potential health benefits and harms associated with cannabis use. Currently, no such requirement exists and frequently misinformation is relayed to consumers. The long-term impact is the continued existence of a largely cannabis illiterate population.

To ensure knowledge gaps are addressed and safe cannabis use is encouraged, there should be a regulatory requirement for retailers to have access to consultation with licensed healthcare professionals, such as clinical directors, during all hours of operation. Consumers deserve easily accessible, medically-related support provided by those most qualified to discuss the health implications of cannabis use. It is reasonable that this level of consumer support be available on-site or remotely in addition to the dedicated operating hours servicing only qualified patients and caregivers. By mandating fact-based cannabis health education within the industry, SB0516 will improve cannabis literacy in Maryland.

Lastly, it is my suggestion that the language of SB0516 more clearly preserve patient care and access to cannabis therapeutics by inclusion of language that creates special protections, incentives, and provisions for patients and businesses to remain in the medical program. This establishes a commitment to optimal success of the existing medical program and prevents regulatory preference for the adult-use market. The incorporation of language explicitly discouraging the shifting of resources or medical grade products to the more profitable recreational market will set-up a framework for ongoing access to, and availability of “specific cannabinoid profiles, potencies, and formulations needed for medical purposes”. The specifics inserted in quotes matters. Also, by establishing a minimum number of licenses for the medical program, this piece of legislation would guarantee that the medical market is not harmed by dilution of the adult-use cannabis market.

In closing, I'd like to share a recent clinical experience. I was assigned to administer general anesthesia to two adult patients scheduled for surgery. The first was a 54-year-old female with metastatic breast cancer to her bones who suffered from debilitating pain as she frequently experienced bone fractures. Her husband and caregiver helped her take a cannabis edible, twice daily to control her pain and relieve suffering. The second patient was a 60-year-old male with a history of substance abuse who heavily and habitually smoked cannabis for recreational purposes. As their anesthesiologist, it was my duty and obligation to discuss risks specific to their unique conditions in order to deliver safe and effective anesthetics. My approach differed slightly between these two patients based on their specific medical status and preferred method of cannabis use.

Like these two patients, the adult-use and medical cannabis programs have different needs and considerations for optimal success. With intentional and meaningful legislation, Maryland can continue to serve the needs of its residents and remain the top ranked state medical cannabis program in the country. It is possible for both adult-use and medical cannabis markets to co-exist and thrive. Thank you for your consideration of the aforementioned high priority items. I urge you to support and advance SB0516 with amendments. Intentionality to succeed begins here.

Sincerely,



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[National Pain ReLEAF](#), Founder  
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References:

1. "**2022 State of the States Report: An Analysis of Medical Cannabis Access in the United States.**" Americans for Safe Access. (2023, February 3).<https://www.safeaccessnow.org/sos22>

# **SB 516 - Cannabis Reform.pdf**

Uploaded by: Donna Edwards

Position: FWA



# MARYLAND STATE & D.C. AFL-CIO

AFFILIATED WITH NATIONAL AFL-CIO

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*President*

**Donna S. Edwards**

*Secretary-Treasurer*

**Gerald W. Jackson**

**SB 516 - Cannabis Reform  
Senate Finance Committee  
March 9, 2023**

**SUPPORT WITH AMENDMENT**

**Donna S. Edwards  
President  
Maryland State and DC AFL-CIO**

Chairman and members of the Committee, thank you for the opportunity to submit testimony in support of SB 516 with amendments. My name is Donna S. Edwards, and I am the President of the Maryland State and District of Columbia AFL-CIO. On behalf of Maryland's 300,000 union members, I offer the following comments.

This bill is a once in a generation opportunity to set up an entire industry from its inception. In years to come this bill will be your legacy. Every part of how Maryland's cannabis industry operates will be connected to the decisions made in this committee. Whether cannabis jobs are low-wage positions with limited benefits or high paying careers with collective bargaining rights, real pathways to retirement, and opportunities for advancement ultimately come down to the decisions that this committee makes.

We applaud SB 516's promotion of social equity and efforts on cannabis businesses to undo the legacies of the War on Drugs, which disproportionately harmed communities of color. These are admirable aims. But it leaves workers of color behind. To build a legacy of social equity we must extend the bill's social equity approach to workers by requiring labor peace agreements for all state license holders.

Cannabis workers will far outnumber license holders. A focus on social equity must not stop with the businesses applying for licenses, it must have a laser sharp focus on promoting good jobs, fair working conditions, and the freedom to form unions without anti-union activities for cannabis workers. Leafly's 2022 Jobs Report found that over 425,000 workers are employed in the cannabis industry nationwide.<sup>1</sup> This number is expected to rise dramatically over the coming years. Comparably sized states like Massachusetts or Colorado all have more than 27,000 workers employed in the cannabis industry. MJ BIZ Daily's Report on Women and Minorities in the Cannabis Industry found that cannabis businesses report significantly more minority employees than companies in the broader economy - 10 percentage

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<sup>1</sup> Bruce Barcott and Beau Whitney. "Leafly Jobs Report 2022." 2022.

points more.<sup>2</sup> These workers deserve the same legislative care and attention to social equity protections as our state's future licensees do.

Unions are a worker's tool to fight for social equity. A 2022 study by the Joint Economic Committee, established by Congress, found that, "Union members earn on average 10% more than their non-union peers. The difference is even greater for Black and Latino unionized workers, whose wages were 17% and 23% higher on average."<sup>3</sup>

Unions are the foundation for building generational wealth for workers. A recent Center for Economic and Policy Research report states that Black union workers on average earn \$24.24 per hour, compared to \$17.78 for non-union Black workers. 71.4% of Black union workers have employer-provided health insurance, compared to 47.7% of non-union Black workers. CEPR found comparable gains for hispanic workers, finding that, "Between 2016 and 2021, the median hourly wage (in 2021 dollars) for Hispanic workers represented by unions was \$25.16, compared to \$16.56 for those not represented by unions."<sup>4</sup>

Labor peace is a well tested method of promoting worker's rights in regulated industries where the state has a proprietary interest in collaboration between employers and workers. Labor peace agreements (LPA) typically require that a prospective license holder enters into an agreement with a bona fide labor organization spelling out the terms for which employees could voluntarily form a union, if they choose, without interference or opposition from their employer. LPAs typically require unions to give up their right to strike as part of these agreements. The state benefits from LPAs by having workforce stability that is not disrupted by conflictual disagreements between employers and employees. Whether it is for hospitals, gambling, sports betting, hotels, stadiums, or state contractors, labor peace agreements have been a favored tool of governments across the country when they wanted to guarantee certain industry outcomes for workers, employers, and customers. Labor peace agreements do not automatically create unions where workers do not want them. They simply create a fair process, free from employer interference, where workers can create unions without having to worry about whether or not they will face retaliation.

Agricultural workers are excluded from the National Labor Relations Act, meaning that cannabis manufacturing workers will have no defined process for unionization. Labor peace agreements are one of the only ways to guarantee that these workers have an avenue to exercise their collective bargaining rights without unruly disruptions to the industry.

Requiring labor peace agreements for all state license holders complements the existing bill's focus on social equity and promotion of small, minority, and women business owners receiving licenses. Labor peace agreements do not require a business to already be unionized in order to apply for or be granted licenses. The bill already requires the Office of Social Equity and the Social Equity Partnership Grant Fund to provide free technical assistance and work with small, minority, and women business owners that apply for licenses. This same process could help introduce disadvantaged business enterprise applicants to bona fide labor organizations that they could sign labor peace agreements with.

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<sup>2</sup> "Women and Minorities in the Cannabis Industry." MJ Biz Daily. 2021.

<sup>3</sup> "Black And Latino Workers See Biggest Wage Gains From Union Membership". Joint Economic Committee. June 13, 2022.

<sup>4</sup> Hayley Brown. "Unionization Confers Significant Advantages for Hispanic Workers." CEPR. 2021.

New Jersey, New York, California, and Virginia have all implemented some level of requirements that licenses applicants or license holders sign labor peace agreements. Justia reports that Massachusetts, Connecticut, and Minnesota are considering implementing labor peace requirements in the cannabis industry.<sup>5</sup> In New Jersey, labor peace agreements have resulted in a \$325,000 grant from the state’s Department of Labor, universities, private businesses and cannabis unions to create an apprenticeship program that “educate[s] and train workers to help cannabis businesses in New Jersey thrive and to build pathways for employees, particularly those in marginalized communities.”<sup>6</sup>

The cannabis industry has so much potential to bring wealth to Maryland and correct historic injustices, but it requires a regulatory framework that focuses on social equity for everyone in the industry. If our goal is to leave no one behind, we must ensure that workers are able to have good jobs in this new industry. For these reasons, we urge a favorable report with our suggested amendments on SB 516.

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<sup>5</sup> “Unions in the Cannabis Industry.” Justia. September 2022.

<sup>6</sup> “With NJDOL funding, Rowan to lead retail cannabis worker training apprenticeship” Rowan University. 2022.

## Proposed Amendment

*Note: This language is borrowed from the 2007 Special Session's Senate Bill 3 "Maryland Education Trust Fund - Video Lottery Terminals." References to the video lottery industry have been replaced with Cannabis industry.*

*Add the following text to Page 45, after Line 8 ("To be licensed, an applicant shall submit to the Division"):*

(3) EVIDENCE THAT THE APPLICANT OR LICENSEE HAS ENTERED INTO A LABOR PEACE AGREEMENT WITH A BONA FIDE LABOR ORGANIZATION THAT IS ACTIVELY ENGAGED IN REPRESENTING OR ATTEMPTING TO REPRESENT CANNABIS INDUSTRY WORKERS IN THE STATE; AND THAT:

(I) THE LABOR PEACE AGREEMENT IS VALID AND ENFORCEABLE UNDER 29 U.S.C. § 185;

(II) THE LABOR PEACE AGREEMENT PROTECTS THE STATE'S REVENUES BY PROHIBITING THE LABOR ORGANIZATION AND ITS MEMBERS FROM ENGAGING IN PICKETING, WORK STOPPAGES, BOYCOTTS, AND ANY OTHER ECONOMIC INTERFERENCE WITH THE OPERATION OF THE CANNABIS FACILITY WITHIN THE FIRST 5 YEARS OF THE EFFECTIVE DATE OF THE CANNABIS LICENSE; AND

(III) THE LABOR PEACE AGREEMENT APPLIES TO ALL OPERATIONS AT THE CANNABIS FACILITY THAT ARE CONDUCTED BY A LESSEE OR TENANT OR UNDER A MANAGEMENT AGREEMENT.



**SB0516 Testimony Dylan Wagner Toasted LLC.pdf**

Uploaded by: Dylan Wagner

Position: FWA

Testimony 3/9/23

Senate Bill #516

Good afternoon committee members. My name is Dylan Wagner I am the owner and operator at Toasted LLC

I would like to thank the committee for taking my testimony on SB516.

I have been farming for 10 years in Rising Sun, MD. I operate and run our 13-acre Family Farm which includes Vineyards, Christmas trees, and Hemp. I am 30 years old, and I am eagerly looking forward to expanding our operations and continuing to support our family, in addition to giving my sons a place to learn, grow, and to gain a healthy respect for hard work and dedication.

I am here to discuss the fact that language in this bill will significantly restrict the types of hemp-derived products that one can produce and sell in Maryland. I commend the legislature's effort to restrict products that it perceives as intoxicating.

While we support the decision to include restrictions to the sale and distribution of chemically manufactured cannabinoids like delta (8) THC, we are in staunch opposition to the adoption of the THC limits to naturally-occurring hemp-derived products detailed in Section 36-1103, Page 69, Line 23-29. These limits are in clear contradiction to the Federal standards as outlined in the 2018 Farm Bill and do not take into account the credible pharmacological studies showing that CBD reduces both the potency and efficacy of THC. Our products have provided relief from anxiety to pain for many of our customers with no intoxicating side effects. Further, it would require our hemp farm, that currently operates under Federal law, to register and submit to the regulations of an industry that operates outside of Federal law. That doesn't make sense to us.

The passage of this Bill as it now reads will place our local hemp farms, producers and retailers at a significant disadvantage in the market and in our opinion is a direct attack of the MD Right to Farm statute. I would like to provide a potential solution to the proposed restrictions by suggesting a change in the language to raise the limits to reflect the Federal THC threshold of 5mg THC per hemp-derived

CBD per serving and 100mg per package. As a compromise, restrictions on the use of the marketing term

“Hemp-derived THC” could be adopted.

Thank you for your consideration of our proposed amendments and look forward to your support of the industrial hemp industry in Maryland.

Our position is in support of the Bill with amendment.

Regards,

Dylan Wagner

Business Owner

Toasted LLC

SENATE BILL 516 Section 36–1103

Page 69

23 (A) (1) A PERSON MAY NOT SELL OR DISTRIBUTE A PRODUCT INTENDED  
24 FOR HUMAN CONSUMPTION OR INHALATION THAT CONTAINS MORE THAN 0.5  
25 MILLIGRAMS OF TETRAHYDROCANNABINOL PER SERVING OR 2.5 MILLIGRAMS OF  
26 TETRAHYDROCANNABINOL PER PACKAGE UNLESS THE PERSON IS LICENSED UNDER

27 § 36–401 OF THIS TITLE AND THE PRODUCT COMPLIES WITH THE:

28 (I) MANUFACTURING STANDARDS ESTABLISHED UNDER §

29 36–203 OF THIS TITLE;

**SB 516 FWA Testimony[20].pdf**

Uploaded by: EDDIE POUNDS

Position: FWA

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March 8, 2023

## **SB 516 (HB 556) – CANNABIS REFORM - FAVORABLE WITH AMENDMENT**

Madame Chair and Members of the Senate Finance Committee:

Ascend Wellness Holdings (AWH) is a multi-state, vertically integrated cannabis operator focused on bettering lives through cannabis. AWH has consistently supported comprehensive legislation across the country that aims to break down traditional barriers in the cannabis marketplace by legalizing cannabis for adult-use, while simultaneously balancing the need to uplift those communities that have been disproportionately harmed by the criminalization of cannabis; specifically low-income communities of color. AWH appreciates the efforts of all of the bill sponsors' commitment to balancing speed-to-market with the importance of equity. The company truly looks forward to the opportunity of being a responsible business partner that will enhance public health and safety, while also creating pathways to the middle class by creating well-paying jobs and business opportunities for all Marylanders.

We are in full support of **Senate Bill 516**, however, we respectfully request consideration of the following items of concern being offered as amendments:

### **EXEMPTIONS FOR PENDING TRANSFER REQUEST**

There are several pending transfer requests (including those from Ascend) that may not receive approval from the MMCC at the March meeting, which may be the last MMCC meeting. It is not fair that the transfer requests may be subjected to rule restrictions and procedures from a different agency. ***For any pending approvals submitted to the MMCC before March but reviewed by the ATC after the bill passes, the ATC should review the request pursuant to the rules and procedures in effect before the bill's passage.***

### **LICENSE CAPS**

Under Section 36-401(E) of the bill, the maximum number of dispensaries an owner can hold is reduced from 4 to 2. This language will severely delay the rollout of Maryland's adult use program. This significantly limits the ability of all licensees (incumbents and new market entrants) to be commercially successful. It would also encourage current operators with more than two dispensaries to divest the dispensaries located in rural areas of the State that serve lower income patients. If the state is requiring at least 150 owners of the 300 dispensaries, it will be difficult for any companies with exceptional ownership and operations to rise to the top with best business practices. ***This should be amended to restore the current cap of four licenses.***

### **TRANSFER RESTRICTIONS**

Section 36-503(C)(1) states that "A cannabis licensee, including a cannabis licensee whose LICENSE WAS CONVERTED IN ACCORDANCE WITH § 36-401 OF THIS TITLE, MAY NOT TRANSFER OWNERSHIP OR CONTROL OF THE LICENSE FOR A PERIOD OF AT LEAST 5 YEARS FOLLOWING LICENSURE." The five-year restriction in this provision should be set back to three years, as measured from the initial license date, not the date of the converted license issue date. Asking incumbent licensees to wait an initial term of three years under HB2, plus another five years under the current bill is an undue restraint of trade. In

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addition, this increases the pool of interested investors to a wider set of market participants. ***When the current medical licenses are converted to adult use, the applicable clock should be three years as calculated from the initial license date, not the date of the converted license.***

#### **PRESERVATION OF CURRENT POLICY REGARDING SINGLE INTEREST RULE**

On April 13, 2022 the MMCC held an emergency meeting. Here is the meeting transcript - <https://register.gotowebinar.com/recording/recordingView?webinarKey=563765113796244238&registrantEmail=jwachs%40offitkurman.com>. At this meeting, the MMCC changes its policy such that any person who holds less than 5% of a licensee (whether the licensee is a public or private company) may also hold an equity interest in more than one grower, one processor or four dispensaries so long as she/he/it does not CONTROL more than 1 grower, 1 processor or 4 dispensaries. This change significantly revised the prior version of the single interest rule (which previously held that a person could hold an equity interest of ANY amount in only 1 grower, 1 processor and 4 dispensaries). This policy change is essential for public MSO licensees (which change ownership every hour of every trading day). ***The bill should codify this policy change.***

We greatly appreciate the opportunity to provide comments on this important and transformative issue. We also appreciate the work that Senators Feldman and Hayes have put into this legislation, and we look forward to continuing to working with them, as well as the members of the Senate Finance Committee, to ensure the success of this industry.

Sincerely,



Caitlin Fleishman  
Vice President, Public Affairs

# **SB 516 Testimony.pdf**

Uploaded by: Elvis Karegeya

Position: FWA

## **SB 516 - Cannabis - Favorable with Amendments**

**To:** The Honorable Chair Griffith, Vice Chair Klausmeier, and Members of the Senate Finance Committee

**From:** Elvis Karegeya, Care Consultant  
Zen Leaf Germantown

My name is Elvis Karegeya and I have been a resident in Germantown for 5 years. I have worked in the cannabis industry for about 6 years and currently serve as a care consultant at Zen Leaf Germantown. I have worked at Zen Leaf for about 3 years but before that I was employed by its parent company Verano in Jessup as part of their packaging department.

I am writing today to express my support for SB-516 legislation that would set regulations in adult-use cannabis and to call on the legislature to ensure that Labor Peace Agreements provisions are included in the legislation. In my 6 years in the industry, I have seen it grown exponentially in every aspect. From the number of dispensaries to the amount of products, from the number of facilities to the amount of employees. We have also seen its growth financially in the medical market which is an indication of how much more it will be during adult-use. Another observation is a lot of the companies in the Maryland market are coming from out of state with business models from a previous state. Over the years as the industry has grown, I've noticed the voice of the employees has also grown smaller, and seeing as most of the employees will be Maryland residents and serving Maryland residents I believe their voices and/or ability to have a voice should be protected.

Zen Leaf Germantown employees have managed to Unionize. This was very important to me because I finally felt like I had a voice that would be heard. I transferred from the parent company to the dispensary and was promised yearly evaluations and raises based off performance. I received an evaluation two and a half years later after requesting it and was denied a raise because it wasn't part of the budget. All the promises that were made were verbal, which is why I consider the union necessary. I wanted to be able to hold the company accountable in writing (contractually) for promises made to the employees. These agreements also hold the employee accountable. An employer would also benefit more from learning about the employee's needs and making sure they are working together to address them.



Having an LPA in place would have been very beneficial for our employees. Our inability to openly and comfortably discuss what it would take to unionized elongated the process. The fear of losing one's ability to make a living should not exist when employees want to create a better work environment.

The lack of an LPA lead to a low turnout when we voted for the union, but we luckily managed to win our union. If we had an LPA in place I believe we would have been able to discuss the benefits more openly and also explain how to vote and make sure it counts. Some people never received ballots and weren't able to effectively communicate their problem because some employees were nervous about even talking about the union.

I believe LPAs are incredibly important for all future Maryland employees in this industry. There is no doubt in the future success of the cannabis industry, and we must look to protect not just the people the start these businesses but also the workers who staff these businesses. Their success should be our success, and cannabis jobs should be sustainable for Maryland cannabis workers.

Thank you for the opportunity to provide this testimony today. Once again, I call on the legislature to vote YES to include Labor Peace Agreement provisions in adult-use cannabis legislation.

**Testimony to Finance Committee with Amendment.pdf**

Uploaded by: Eric Spencer

Position: FWA



March 9, 2023

VIA ELECTRONIC MAIL

Melanie Griffith, Chairwoman  
And Members of the Finance Committee  
Room 231  
House Office Building  
Annapolis, Maryland 21401  
Email: [AA\\_FIN@mlis.state.md.us](mailto:AA_FIN@mlis.state.md.us)

*Re: SB 0516 Cannabis Reform*

Madame Chair Griffith and Members of the Committee,

My name is Eric Spencer and I am a member of the Maryland Cannabis Equity Collective (“Collective”), a grass roots organization primarily focused on equity, inclusion and intentionality in Maryland’s upcoming recreational cannabis Industry (“Industry”). We want to ensure that the communities of color who have been directly impacted by the War on Drugs get a fair opportunity to participate. The Collective takes issue with your colleague across the aisle expressing his disdain for an Industry that seeks to make money. With all due respect, this Industry is the closest thing to providing reparations and an opportunity for black and brown communities to build wealth to pass along to future generations.

Senate Bill 0516 (“SB 516”) which is before this committee is a good starting part. We support the bill. However, we believe that the definition for social equity needs to be broadened to incorporate men and women who have prior state or federal cannabis convictions. It is inequitable to create a law that downplays the harms that cannabis convictions have done to our communities and individuals. Also, we believe that men and women formerly incarcerated should have a few seats on the Advisory Board too. This ensures that these often-overlooked voices are an integral part of the conversation, ideas and solutions concerning the Returning Citizen Community. With all due respect, Returning Citizens, especially those with prior cannabis convictions have not had a voice in the conversation up to this point.

While recreational sales must commence on or before July 1, 2023, Social Equity Applicants will not be able to sell recreational cannabis on this date. This is very important because the State of Maryland through its elected Governor has appropriated funding for the Cannabis Business Assistance Fund. We believe this enables Social Equity Applicants to participate alongside current cannabis businesses to begin dispensing recreational cannabis on July 1, 2023. This will ensure equity is the rule and not the exception. Our communities should not and need not wait for one or perhaps two years before Social Equity Applicants can participate when funds are readily available. A quick estimate suggests \$40 Million

dollars can open 40 dispensaries at \$1 million each or 80 dispensaries at \$500 thousand each. The Collective takes issue with \$ 1 million for opening and operating a dispensary. Maryland in its quest for Equity needs to simplify the application process which will alleviate many costs.

Thus, we believe it is imperative for the Commerce Department who has been chosen by the State of Maryland to dispense the appropriated funds to immediately begin outreach about upcoming opportunities in the Industry while this being is being debated. As this Committee is well aware, those businesses first to market will gain an advantage that will be impossible for Social Equity Applicants to overcome. I am confident that our elected leaders which includes this Committee, will be able to solve this important issue.

Also, SB 516 should be bold and incorporate language the sets out of goal of allotting 50% of all licenses to Social Equity Applicants and provide an additional \$50-\$100 million to the \$46.5 million that Governor Moore has appropriated to the Cannabis Business Assistance Fund.

In conclusion, the Collective believes that there should be no caps on the number of licenses for Social Equity Applicants keeping in mind that a lottery will not yield the equitable results the bill seeks to achieve. Those with deep pockets will be able to submit man many applications. Therefore, the Collective requests that lotteries be removed from the bill in its entirety.

Thank you,  
Eric Spencer, Member  
Maryland Cannabis Equity Collective

## AMENDMENT TO HB 0516

### Page 12 After Line 5 add a new paragraph

**(IX) Further, the advisory board shall include at least two residents from communities most impacted by cannabis prohibition, people with prior drug convictions, the formerly incarcerated, and representatives from the farming industry, cannabis industry, and organizations serving communities impacted by past federal and state drug policies.**

The Purpose of this language is to ensure that men and women who have been formerly incarcerated for drug convictions get an opportunity to participate in the ongoing discussion of equity and inclusion in the cannabis space.

### Page 24 Line 13 after INDIVIDUALS add

**with a goal established to award fifty percent of all adult use cannabis licenses to social equity applicants who**

The purpose of this language is to create an Industry where cannabis Social Equity is intentional. Currently, an overwhelming majority of the medical cannabis businesses are owned and operated by individuals who have not suffered from the War on Drugs. Out of nearly 100 businesses, less than 10 are owned and operated by people of color. More importantly, not one of the less than 10 are formerly incarcerated or have cannabis convictions because Maryland's medical program prohibits participation.

### Page 24 Line 18 after OR; add a new paragraph

**(III) Extra priority shall be given to the social equity applicant that meets the additional criteria:**

**(i) was convicted of a marijuana-related offense prior to the effective date of this chapter, or had a parent, guardian, child, spouse, or dependent, or was a dependent of an individual who, prior to the effective date of this chapter, was convicted of a marijuana-related offense whether expunged or not in this State, another State or federally.**

This language speaks for itself. We believe that it is highly hypocritical to leave out priority status for men and women who have been suffered from felony convictions for cannabis. Oftentimes, lobbyists and others in the Industry try to leave out prior cannabis convictions for fear of unintended consequences. To continue the fear tactic of the War on Drugs, there has to be bad individuals and a reason to limit competition for large multi-state operators to capture market share. We believe the State can institute guard rails to prevent any malfeasance.

**Page 36 Line 4 after LICENSES add**

**with a goal established to award fifty percent of all adult use cannabis licenses to social equity applicants**

The purpose of this language is to create an Industry where cannabis Social Equity is intentional. Currently, an overwhelming majority of the medical cannabis businesses are owned and operated by individuals who have not suffered from the War on Drugs. Out of nearly 100 businesses, less than 10 are owned and operated by people of color. More importantly, not one of the less than 10 are formerly incarcerated or have cannabis convictions because Maryland's medical program prohibits participation. Nor have they been impacted by the draconian War on Drugs

**Page 43 Line 21, strike 'On or Before January 1, 2024' and add**

**On or before July 1, 2023**

The purpose of this language is to ensure Social Equity Applicants get an opportunity at "first to market" alongside current medical cannabis businesses who get to convert to recreational sales. Unlike any other jurisdiction that has legalized cannabis, Maryland is the only State that has set aside funding in the beginning to ensure Social Equity Participants get an opportunity to participate in the recreational cannabis industry in Maryland. We must be mindful that Maryland intentionally prohibited men and women with prior cannabis convictions from benefiting from its medical marijuana program which has been in operation for a number of years without a valid reason. It is important to note that Maryland has the infrastructure to handle emergency legislation to ensure that licenses to Social Equity Applicants can be distributed during this time.

**Page 43 Line 22, Strike 'First Round'**

Social Equity Licenses should be awarded on a continuous basis throughout the process until a balance is met according to the Commission. By capping licenses, those the law intends to reach will not be able to participate. New jersey has implemented this process with great success.

**Page 43 Line 24-26 strike On or after May 1, 2024, the division shall begin issuing second round licenses in accordance with Subsections (E) or (F) of this section**

Social Equity Licenses should be awarded on a continuous basis throughout the process until a balance is met according to the Commission. By capping licenses, those the law intends to reach will not be able to participate. New jersey has implemented this process with great success.

### **Page 45 Line 16 and Line Strike ‘Lottery’**

By putting a limitation on the number of licenses and creating a lottery, the bill will not meet its equitable goal. Deep pocketed individuals will be able to submit multiple applications rendering the chances of those disproportionately impacted from getting an opportunity to win. It happened in Illinois. Maryland should look to how New Jersey did its Social Equity Licensing Program for guidance. New Jersey did not put a cap on the licenses for Social Equity Participants.

### **Page 46 Line 17 Strike ‘Lottery’**

By putting a limitation on the number of licenses and creating a lottery, the bill will not meet its equitable goal. Deep pocketed individuals will be able to submit multiple applications rendering the chances of those disproportionately impacted from getting an opportunity to win. It happened in Illinois. Maryland should look to how New Jersey did its Social Equity Licensing Program for guidance. New Jersey did not put a cap on the licenses for Social Equity Participants.

### **Page 46 Lines 19-28 Strike ‘(I) FOR STANDARD LICENSES: 1. 25 GROWER LICENSES; 2. 25 PROCESSOR LICENSES; AND 3. 120 DISPENSARY LICENSES; (II) FOR MICRO LICENSES: 1. 70 GROWER LICENSES; 25 2. 70 PROCESSOR LICENSES; AND 3. 125 DISPENSARY LICENSES; (III) 10 INCUBATOR SPACE LICENSES; AND (IV) 15 ON-SITE CONSUMPTION LICENSES**

There should be no limitation on the amount of licenses available to Social Equity Participants.

### **Page 47 Line 2 and Line 18 Strike ‘Lottery’**

By putting a limitation on the number of licenses and creating a lottery, the bill will not meet its equitable goal. Deep pocketed individuals will be able to submit multiple applications rendering the chances of those disproportionately impacted from getting an opportunity to win. It happened in Illinois. Maryland should look to how New Jersey did its Social Equity Licensing Program for guidance. New Jersey did not put a cap on the licenses for Social Equity Participants.

### **Page 48 Line 3 and Line 21 Strike ‘Lottery’**

By putting a limitation on the number of licenses and creating a lottery, the bill will not meet its equitable goal. Deep pocketed individuals will be able to submit multiple applications rendering the chances of those disproportionately impacted from getting an opportunity to win. It happened in Illinois. Maryland should look to how New Jersey did its Social Equity Licensing Program for guidance. New Jersey did not put a cap on the licenses for Social Equity Participants.

**Page 74 Line 12 after ‘CRITERIA’ add**

**‘including non-standard credit criteria’**

This language will help address the difficulties that Black and Indigenous People of Color (“**BIPOC**”) encounter trying to obtain loans to start up a business. Communities of color *must* have the confidence to apply for this funding without fear of being denied because they may not have the best credit scores, documentation, or *experience*. The United States Senate Banking Report (“**Report**”) that accompanied the Community Development Banking and Financial Institutions Act of 1993 highlights the issues that plague communities of color regarding credit:

“Despite the importance of capital, recent evidence suggests that there are significant capital gaps caused by discrimination and redlining . . . There are many factors which contribute to problems of credit access in under-served communities, including discrimination on the basis of race and ethnicity, unfounded prejudices or stereotypes about the risk of lending in particular neighborhoods . . . The unique character of the credit market in low income and minority communities may be a factor impeding the flow of development capital. The experience of financial institutions is that lending and investment in distressed communities often requires . . . non-standard credit criteria, and intensive supportive services . . .”

United States Senate Banking Report 103-169 at 13-14 (1993). The State of Maryland has spoken by providing \$46.5 Million up front for loans to Social Equity Entrepreneurs. The objective must be to provide opportunities for the individuals this law aims to incorporate.

**Page 74 Line 17 strike ‘\$500,000’ and replace with**

**‘\$750,000’**

The amount represents the midway point between lobbyists and the Industry’s belief that it takes \$1 million or more to open a dispensary and the \$500,000 the State of Maryland proposes.

**Page 74 Line 26 strike ‘\$500,000’ and replace with**

**‘\$750,000’**

The amount represents the midway point between lobbyists and the Industry’s belief that it takes \$1 million or more to open a dispensary and the \$500,000 the State of Maryland proposes.





**MD-SB-516-comments-VoteHemp\_Mar8-23.pdf**

Uploaded by: Eric Steenstra

Position: FWA



March 8, 2023

Senate Finance Committee  
Senator Melony Griffith, Chair  
Senator Katherine Klausmeier, Vice Chair

**Subject: Strong Opposition - SB 0516 Cannabis Reform, Favorable with Amendments**

Dear Chair Griffith, Vice Chair Klausmeier, and Members of the Committee,

My name is Eric Steenstra. I am the Executive Director of Vote Hemp, a non-profit advocacy group that has worked to bring back hemp farming in Maryland as well as nationally. We worked with Del. Fraser-Hidalgo and stakeholders to pass hemp farming regulations that comply with the 2018 Farm Bill.

We have been speaking with Maryland farmers and businesses that have been growing and processing hemp and are very concerned that specific language in SB 516 will be devastating to the Maryland hemp Industry and could eliminate it completely.

The specific language we are concerned with is the tetrahydrocannabinol (THC) milligram cap provision on page 69 which establishes a new and unreasonable limit on naturally derived THC in hemp products. The proposed THC limit is much lower than what is allowed in other states as well as federal law. Hemp products currently may contain a maximum of 0.3% THC which is far below what regulated cannabis products contain.

A THC mg cap is the wrong way to keep substandard, illegal or untested products off retail shelves and will destroy many small hemp businesses including family farms which have relied on the existing definition in Maryland and federal law to invest and build businesses.

We fully support reasonable regulation of hemp products such as is proposed in HB 1204 (Fraser-Hidalgo). We also support the Maryland cannabis industry and believe that their concerns can be addressed while also protecting the Maryland hemp industry.

We urge you to amend SB 516 by removing the THC mg cap provision and work with Del. Fraser-Hidalgo and stakeholders to address any concerns in a way that allows both the hemp and cannabis industries to co-exist and flourish. We do support SB 516 as written if the THC mg cap is removed.

Vote Hemp  
712 H Street NE  
Washington, DC 20002

[www.VoteHemp.com](http://www.VoteHemp.com)

# **CANNABIS SB 516.pdf**

Uploaded by: Eric Sterling

Position: FWA

STATEMENT OF  
**ERIC E. STERLING, J.D.<sup>1</sup>**  
SUBMITTED TO  
THE MARYLAND SENATE  
FINANCE COMMITTEE  
HON. MELONY GRIFFITH, CHAIR  
HON. KATHERINE KLAUSMEIER, VICE CHAIR  
MARCH 9, 2023

**IN SUPPORT OF  
SB 0516 WITH AMENDMENT**

Chair Griffith, Vice Chair Klausmeier, Honorable Senators, I support SB 516 with amendments. Thank you for reading my statement. I heartily commend Senators Feldman and Hayes, and Delegates Watson and Atterbeary for their enormous accomplishment in developing SB 516 and HB 556!

- (1) The use, cultivating, processing and distribution of cannabis by adults is not wrongful.
- (2) Liberty is the default position of residents of the United States and Maryland.
- (3) When the legislature enacts laws that deny the liberty of persons for conduct that is not wrongful those laws are unjust – and they will be disobeyed as the cannabis laws have been widely disobeyed for more than a half-century.
- (4) The legislature having prohibited, for almost a century, the lawful use, production and distribution of cannabis and thus has created an enormous criminal industry. That industry employs violence necessarily and extensively to: resolve commercial and personnel conflicts; to protect its inventory, receipts, employs and property; collect debts; manage succession; and retaliate against informants to law enforcement. None of the dispute resolution features of the law and courts have been available to the Cannabis industry. The criminal industry does not pay taxes and uses its profits to advance other criminality. The profits generally do not benefit the communities which purchase and use illegal cannabis. The legislature must make the elimination of this criminal industry and its attendant crime a high priority of its cannabis regulation program.
- (5) The established criminal cannabis industry will continue to operate as long as it can sell cannabis less expensively and more conveniently to its customers than the newly legalized businesses. Thus, the legislature’s regulatory must minimize taxation and encourage those in the criminal industry to convert into the legal industry.

SB 516 is complex because it must meet numerous objectives, some of which are in tension with one another. However, four other objectives are paramount.

1. **End the disproportionate enforcement** of cannabis laws and regulations against people of color with prosecutions, fines, imprisonment, forfeiture of property, and the life-long handicap of a criminal record.

2. Create a coherent system of legal cannabis regulation that **recognizes the reality of how marijuana is grown, distributed and used.**
3. **Respect the liberty and dignity of Marylanders.**
4. **Assure that all Marylanders have full opportunity to participate in the new industry.**

Thus, **people who have been handicapped with criminal records for selling, growing or using Cannabis should be given preferences in obtaining licenses.** Persons who have used violence, corruption, or theft, however, should be excluded.

**People currently illegally selling and growing cannabis,** to be encouraged to end their participation in the criminal industry, **must be enabled to find roles in the new industry.** (Remember, that conduct is not wrongful.)

These preferences will reduce violent crime, increase tax revenue, and further racial justice.

For over 45 years, I have closely observed legislators, law enforcement, health officials and the general public debate cannabis policy. I have concluded that **all of us are handicapped in our thinking about cannabis policy by our long-standing cultural prejudice against cannabis users as deviants and dangerous.** Even when we know that prejudice is not true, our views have been shaped by falsehoods, cliches, stereotypes, and myths embedded in movies, television and music, as well as news reports, scientific studies and legislation. Even in a federal case decided last month in Texas, *the U.S. Department of Justice argued that marijuana consumers were not among “the people” of the United States* entitled to the protection of the Constitution’s Second Amendment, that they were “presumptively [too] risky” to be permitted to own a firearm, and that they were “unvirtuous.” Fortunately, the Federal court had the wisdom to reject such arguments and held the provision in the 1968 Gun Control Act barring persons who use marijuana from owning or receiving a firearm is unconstitutional.<sup>ii</sup> Sadly, some of the restrictions of SB 516 reflect those deep-seated prejudices.

In particular, the limits on home cultivation and personal possession are too low and will:

- a. continue unjust racial disparities in enforcement, and
- b. place tens of thousands of Marylanders in needless jeopardy of being informed against, arrested and prosecuted.

Specific suggestions:

- (1) A limit of two plants for an adult is absurdly low. As any experienced gardener knows, many plantings fail to thrive, and many states explicitly permit the cultivation of many seedlings or immature cannabis plants. Of the 19 states that now permit home cultivation, 18 states do not have a restriction this low. A majority of the legal states allow 6 plants. The secondary sources reporting these numbers are inconsistent, but it appears that of the states that permit medical patients to grow their own, all but Montana permit greater cultivation. Missouri permits 18 plants and Michigan permits a number sufficient to yield a 60-day supply.<sup>iii</sup>

**SB 516 should be amended to permit cultivation of at least six mature plants and another six immature plants.** The current distinction in the number that can be cultivated between patients and non-patients invites investigations and prosecutions over a triviality.

- (2) The difference in permissible personal possession amounts of 1.5 ounces for adults and 4 ounces for medical patients again invites trivial prosecutions. There is a wide variety in the flavors and potencies of cannabis flower. Those of you who use and possess alcohol might consider the alcohol inventory in your home right now. Many, if not most of YOU possess a variety of liquors, a variety of wines and a variety of beers. No one expects that you will consume all of this at once. Quite probably you have owned some of those liquors or wines for many years. Similarly, most adult cannabis users possess a variety of cannabis, obtained at different times and from different sources. As proposed these quantity possession restrictions will be widely if not universally violated. **An across-the-board four-ounce quantity limit is the minimum that should be adopted.**
- (3) If a person can be discharged from employment because they test positive for having used cannabis – not on the basis of being impaired – then we have not legalized cannabis. Due to the fat-soluble character of some cannabinoid metabolites, those chemicals can be detected many days after cannabis is used and after any trace of impairment is long gone. Some people facing drug tests will use unreliable drugs or herbs believing that they can purge their urine of traces of cannabinoid metabolites. A law that purports to legalize cannabis, pursuant to a state Constitutional amendment(!), should **protect adults who use cannabis from being discharged due to a positive urine screen absent evidence of actual impairment.** Without such protection, discriminatory employment practices will continue based on who passes or doesn't pass a drug test. (Of course, an accident is grounds for an immediate drug test, and objective evidence of impairment while on the job is ground for discharge, particularly in safety sensitive positions.)
- (4) Most members of this committee are aware of the enormous interest in experimenting with the varieties of flavors and techniques available in brewing beer, vinting wine and distilling spirits and the growth in the craft beer, craft distillery and craft winery businesses. Cannabis users are similar. There is enormous variety and a large demand among consumers to experiment. **If we respect the people of Maryland, including those who use cannabis – and those who are passionate about cannabis – then we should respect their desire to experiment.** To meet this demand the legislation **should permit the creation of a cottage industry for cannabis cultivation and distribution that is analogous to the Maryland cottage industry that exists for food production.**

Maryland, of course, strictly regulates commercial food production. But it has created, pursuant to COMAR 10.15.03, a vital and vibrant cottage food industry in which a person can earn as much as \$50,000 annually without a commercial food license.<sup>iv</sup> This exemption from the usual rules to protect public health exists notwithstanding the fact that annually, about 48 million Americans are sickened from foodborne pathogens, 128,000 are hospitalized and 3000 die, according to the CDC.<sup>v</sup> Cannabis has a very high safety profile. While people who ingest cannabis unwittingly or without proper labeling

are sometimes hospitalized when they are alarmed by the very unpleasant sensations of a cannabis overdose, there is very rarely any lasting consequence and never a fatality. With legalization, the opportunity for more effective education and accurate product labeling can minimize the risks of overdose. The risks exist not from cannabis producers operating under the authority of a cottage industry but from out-of-state and illegal operators whose opportunities are created by excessive regulation. A Cannabis cottage industry should also be an option for cultivation and distribution.

If you create an unrealistic Cannabis regulation program, you will not eliminate the crime associated with the large-scale criminal market including money laundering and tax evasion. More importantly, you won't get the police out of the lives of cannabis consuming Marylanders who commit minor regulatory violators, and thus *you won't end the egregious racial disparity that has dominated marijuana enforcement for one hundred years.*

I urge a report that includes the adoption of the amendments I have suggested.

Thank you very much.

[Brief summary of my experience considering cannabis regulation: Governor Martin O'Malley appointed me as one of the original members of the Maryland Medical Cannabis Commission in 2013. As the Chair of the Commission's policy committee, I was the principal author of Maryland's medical cannabis regulations adopted in 2015.<sup>vi</sup> My appointment was a capstone of decades of consideration the legalization of cannabis. As early as 1982, I was one of the four co-authors of the report, "The Regulation and Taxation of Cannabis Commerce," from the National Task Force on Cannabis Regulation.<sup>vii</sup> From 1979 to 1989, I was the counsel to the U.S. House of Representatives Committee on the Judiciary, Subcommittee on Crime, responsible for federal drug law enforcement, among many issues.

In 1989, U.S. Senate Judiciary Committee Chair Joe Biden and I debated the legalization of drugs at Georgetown University Law Center.<sup>viii</sup> Studying and promoting drug legalization options was a major role in my work at the Criminal Justice Policy Foundation for over 30 years. I was one of the co-founders of the Marijuana Policy Project and have received a lifetime achievement award from the National Organization for the Reform of Marijuana Laws (NORML).

I have never had any economic interest in, nor received any compensation from, any entity or person involved in the cannabis industry (with the exception of an honorarium for lecturing at Oaksterdam University in 2015).]

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<sup>i</sup> I was Executive Director of the Criminal Justice Policy Foundation (1989-2020). I have lived in Maryland 30 years and in the 18<sup>th</sup> legislative district over 25 years.



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- <sup>ii</sup> *United States v. Jared Harrison*, Case. No. CR-00328-PRW, U.S.D.C. W. D. Okla., Feb. 3, 2023; Kyle Jaeger, “Federal Court Strikes Down Gun Ban For People Who Use Marijuana, Calling Government’s Justification ‘Concerning’” MarijuanaMoment.Net, Feb. 6, 2023, <https://www.marijuanamoment.net/federal-court-strikes-down-gun-ban-for-people-who-use-marijuana-calling-governments-justification-concerning/> (includes motions for the United States and the Plaintiff).
- <sup>iii</sup> Andrew Ward, “Cannabis Cultivation Laws: State-by-State Marijuana Growing Guide”, December 4, 2021, <https://potguide.com/blog/article/cannabis-cultivation-laws-state-by-state/> (accessed Feb. 15, 2023); Editorial Team, “The State-By-State Guide to Growing Cannabis at Home,” wayofleaf.com, January 9, 2023, <https://wayofleaf.com/cannabis/growing/state-by-state-guide-to-growing-marijuana> (accessed, Feb. 15, 2023); C. Hansen, H. Alas, and E. Davis, “Where Is Marijuana Legal? A Guide to Marijuana Legalization,” U.S.News.com, Jan. 20, 2023, <https://www.usnews.com/news/best-states/articles/where-is-marijuana-legal-a-guide-to-marijuana-legalization> (accessed Feb. 15, 2023).
- <sup>iv</sup> Maryland Department of Health, Office of Food Protection, “Maryland Cottage Food Businesses,” <https://health.maryland.gov/phpa/OEHFP/OFPCHS/Pages/Cottagefoods.aspx>, Feb. 3, 2023, (Accessed, Feb. 15, 2023)
- <sup>v</sup> Centers for Disease Control and Prevention, “Estimates of Foodborne Illness in the United States,” Nov. 5, 2018, <https://www.cdc.gov/foodborneburden/2011-foodborne-estimates.html> (Accessed, Feb. 15, 2023).
- <sup>vi</sup> COMAR 10.62.01.01 et seq. (Effective Sept. 14, 2015, 42:18 Md. R.1176).
- <sup>vii</sup> Peter Passell, “Make Grass Greener,” Editorial Notebook, *The New York Times*, Nov. 29, 1982, <https://www.nytimes.com/1982/11/29/opinion/the-editorial-notebook-make-grass-greener.html> (accessed Feb. 15, 2023)
- <sup>viii</sup> <https://youtu.be/a5EnRh8GPpw>

# **Charm City Hemp SB 516 Amendment Letter.pdf**

Uploaded by: Eugene DeVan

Position: FWA

Dear Senator Feldman, Members of the Senate Finance Committee,

Thank you for taking the time to read this letter.

My name is Eugene "Buck" DeVan. My wife and I are the principal owners of a business in your district, Charm City Hemp Premium CBD Store. .

We founded Charm City Hemp in 2019 and opened our flagship store in Belvedere Square Market in Baltimore. We now have four retail store locations, three in Baltimore City, and another in downtown Frederick. We are currently negotiating a new lease for a retail store in Bel Air. All of these storefronts are in very high-profile locations in their areas, and we are well known and respected throughout these areas.

Charm City Hemp is Maryland's premier retail boutique for CBD and Hemp-derived products. We have established a great reputation over the past 3 years for our responsible business practices, and for only carrying the cleanest, safest, and most rigorously tested hemp products available in the marketplace while keeping these products out of the hands of minors. Charm City Hemp serves tens of thousands of customers in Baltimore City and Frederick, and many of those customers live in underserved community areas and neighborhoods.

Charm City Hemp was founded on the belief that CBD and hemp-derived products are a healthy and natural alternative for people suffering from various health problems like stress, anxiety, sleep problems, pain and inflammation, etc. Our annual sales are in the millions of dollars and we employ over 20 Marylanders, many of whom are from minority groups and under-served communities.

We have helped thousands of people with these health issues over the past three years, but our business is now under serious threat of being essentially exterminated by the Cannabis Reform Bill (HB1219/SB516) which contains language that would cripple the hemp industry in Maryland and **would force us to close down all four of our storefronts in these high-profile locations.**

**In addition, all of our 20+ Maryland employees would also be put out of work should this bill pass as it is currently written.**

**Firstly, we would like to invite you to personally visit one of our stores to see for yourself what we do and how we are helping thousands of people in Maryland.**

We are also asking for your help in **AMENDING this bill.**

**We need your help to save the Maryland Hemp Industry by amending the Cannabis Reform Bill (HB1219/SB516) to change the permissible THC cap for hemp products that can be sold without an adult use license from what's currently in the bill [.5mg per serving and 2.5mg per package] to products with less than 0.3% Delta 9 THC.**

**We would additionally like for hemp products to be regulated and tested within the newly formed Cannabis Regulation and Enforcement Division and for there to be hemp specific licenses that go to those businesses currently growing, processing, and selling these low THC products. The retail license would require that 90% of the sales of the current businesses be from hemp products.**

Thank you again for taking the time to read this letter and for taking the time to visit one our stores in person.

We have also enclosed separate attachments showing examples of the comprehensive lab reports and testing performed on products that we sell in our stores.

Sincerely,

Buck DeVan, Melissa Cox, and Randy Shayotovich  
Charm City Hemp, LLC

Buck DeVan Cell: 858-349-4512

# **Maryland Hemp Industry White Paper - Proposed Amen**

Uploaded by: Eugene DeVan

Position: FWA



MARYLAND  
**HEALTHY**  
ALTERNATIVES ASSOCIATION



- Maryland's hemp industry represents over \$15.5M in estimated capital investment for the 62 licensed growers and an additional \$2.5M in estimated capital invested for the 60 CBD/Hemp specialty shops, a third of which are Black-owned.
- Maryland's hemp market yields an estimated **\$370M** in product sales.
- The hemp industry serves a distinct market and customer-base, including federal employees and those who do not want to use an extremely potent recreational cannabis product.
- Hemp products provide the relief for a variety of ailments without the potent and long-lasting intoxicating effect of recreational cannabis.
- The hemp industry would continue to thrive even after the opening of the adult-use recreational cannabis market.
- As written, HB556 - Cannabis Reform would inadvertently put an end to the hemp industry in Maryland.
- Attached are suggested amendments to **HB556 - Cannabis Reform** to ensure the hemp industry is not wiped out come July 1, 2023.
- Also attached is draft bill language outlining the regulatory framework for the hemp industry that could be housed under the newly established Alcohol, Tobacco, and Cannabis Commission.



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ALTERNATIVES ASSOCIATION



### **Proposed Amendments to HB556**

Page 18, line 19: (C) (1) **A DELTA-9 TETRAHYDROCANNABINOL CONCENTRATION GREATER THAN [0.3%] 1% ON A DRY WEIGHT BASIS.**

*The USDA Final Rule establishes that the THC threshold for a negligent violation is 1.0 percent per the USDA's FR. Currently, federal law states that "hemp" with a delta-9- THC concentration greater than 0.3% and less than 1% is considered "non compliant" and can be remediated. As stated in the Final Rule "Remediation" refers to techniques utilized to transform non-compliant cannabis into something useful and compliant.*

Page 69, lines 24: (A) (1) **[0.5 MILLIGRAMS OF TETRAHYDROCANNABINOL PER SERVING OR 2.5 MILLIGRAMS OF TETRAHYDROCANNABINOL]-1% DELTA-9- TETRAHYDROCANNABINOL ON A DRY WEIGHT BASIS UNLES THE PERSON IS LICENSED**

*This would effectively kill the entire CBD hemp industry. The following language criminalizes federally legal hemp CBD products. Products that comply with the 0.3% delta9 THC limits are criminalized by this clause. See attached letter addressing THC dosing.*

Page 70, Line 8, STIRKE: **~~(B) A PERSON MAY NOT SELL OR DISTRIBUTE A CANNABINOID PRODUCT THAT IS NOT DERIVED FROM NATURALLY OCCURRING BIOLOGICALLY ACTIVE CHEMICAL CONSTITUENTS.~~**

**NOTE:** We have a model for a regulatory structure for these products that incorporates the Maryland Medical Cannabis Commission's recommendations, *HB1204*.

*It is well established in both the hemp industry as well as the medical/adult-use cannabis industry that not all cannabinoids in the plant Cannabis sativa L. can be isolated or tested for, using current technology and testing standards, to determine if said cannabinoids are "naturally occurring" or not. There are over 160 known naturally occurring cannabinoids, but independent testing laboratories can only test for up to 21 cannabinoids. That means **only 13% of the known naturally occurring cannabinoids can be tested using current technology and testing standards.** It is unclear what the purpose or enforcement of this clause would be because a cannabinoid product could be derived from naturally occurring chemical constituents but, because the labs only test for up to 21 cannabinoids, that same product would be deemed illegal due to this clause.*



MARYLAND  
**HEALTHY**  
ALTERNATIVES ASSOCIATION





**MCT-for-posting-220614A-220527F-220629B.pdf**

Uploaded by: Eugene DeVan

Position: FWA

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** Organic CBD Tincture - Natural  
**PRODUCT STRENGTH:** 900mg  
**TINCTURE BATCH:** 220614A, 220527F, 220629B  
**BEST BY DATE:** 6/8/2024  
**HEMP EXTRACT LOT:** BCA-000389-220607

## Physical Attributes

Test	Method	Specification	Results
Color	Internal	Golden to Amber	PASS
Odor	Internal	Characteristic - Olive and Hemp	PASS
Appearance	Internal	Golden to Amber oil in brown glass bottle with dropper.	PASS
Primary Package Eval.	Internal	Container clean and free of filth. Container caps tight and shrink bands intact	PASS
Secondary Package Eval.	Internal	Labeling Compliance Checked, Cartons sturdy and clean. Sufficient cushion material exists. Box taped and secure.	PASS

## Review of Third-Party Analysis

Panel	Method	Specification	Results*	Pass/Fail
<b>Potency - Total CBD</b>	HPLC-UV DAD	*NLT (product strength) mg / bottle	<b>32.4mg</b>	PASS
<b>Potency - D9-THC</b>	HPLC-UV DAD	LOQ: 10 ppm (.001-0.3%)	<b>ND</b>	PASS
<b>Expanded Pesticide Panel</b>	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>ND</b>	PASS
<b>Microbial</b> Escherichia coli (STEC)	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	<b>Absent</b>	PASS
<b>Microbial</b> Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	<b>Absent</b>	PASS
<b>Microbial</b> Yeast and Mold	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Coliforms*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Aerobic Count*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>3</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Heavy Metals Panel</b>	ICP-MS	Arsenic (As): ≤1.5 ppm Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	<b>ND</b>	PASS
<b>Mycotoxins</b>	ICP-MS	Total Aflatoxins <20 ppb† Afltoxin B1 < 5 ppb Ochratoxin < 5ppb	<b>ND</b>	PASS
<b>Residual Solvents</b>	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>ND</b>	PASS

\* \*Level of Quantitation, † Parts Per Million ‡ Part Per Billion  
 CFU/g=Colony Forming Units per Gram  
 \*Nothing Less Than  
 10<sup>2</sup>=100 CFU  
 10<sup>3</sup>=1,000 CFU

Quality Certified



Name

8/10/22

Date

**900 Natural**

Batch ID or Lot Number: 220614A, 220527F	Test: <b>Potency</b>	Reported: <b>24Jun2022</b>	USDA License: N/A
Matrix: Concentrate	Test ID: T000211077	Started: 23Jun2022	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD)	Received: 21Jun2022	Status: N/A

**Cannabinoids**

	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.006	0.017	ND	ND	
Cannabichromenic Acid (CBCA)	0.005	0.016	ND	ND	
Cannabidiol (CBD)	0.013	0.044	3.530	35.30	
Cannabidiolic Acid (CBDA)	0.013	0.045	ND	ND	
Cannabidivarin (CBDV)	0.003	0.010	0.020	0.20	
Cannabidivarinic Acid (CBDVA)	0.006	0.019	ND	ND	
Cannabigerol (CBG)	0.003	0.010	0.260	2.60	
Cannabigerolic Acid (CBGA)	0.013	0.041	ND	ND	
Cannabinol (CBN)	0.004	0.013	ND	ND	
Cannabinolic Acid (CBNA)	0.009	0.028	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.016	0.049	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.014	0.044	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.013	0.039	ND	ND	
Tetrahydrocannabivarin (THCV)	0.003	0.009	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.011	0.035	ND	ND	
<b>Total Cannabinoids</b>			<b>3.810</b>	<b>38.10</b>	
Total Potential THC			ND	ND	
Total Potential CBD			3.530	35.30	

**Final Approval**



Daniel Weidensaul  
24Jun2022  
01:26:00 PM MDT



Jacob Miller  
24Jun2022  
01:28:00 PM MDT



PREPARED BY / DATE

APPROVED BY / DATE

<https://results.botanacor.com/api/v1/coas/uuid/eecf286e-fc8c-465b-bbb7-378f08c5914d>

**Definitions**  
% = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method).  
Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THCa \*(0.877)) and Total CBD = CBD + (CBDA \*(0.877)).

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2017 Accredited by A2LA.



Cert #4329.02  
eecf286efc8c465bbb7378f08c5914d.1

**900 mg 5G Broad Spectrum Tincture Bulk in EVOO**

Batch ID or Lot Number: <b>BCA-000389-220607</b>	Test: <b>Pesticides</b>	Reported: <b>16Jun2022</b>	USDA License: NA
Matrix: Concentrate	Test ID: T000209812	Started: 14Jun2022	Sampler ID: NA
	Method(s): TM17 (LC-QQ LC MS/MS)	Received: 10Jun2022	Status: NA

Pesticides	Dynamic Range (ppb)	Result (ppb)	Pesticides	Dynamic Range (ppb)	Result (ppb)
Abamectin	365 - 2660	ND	Malathion	304 - 2758	ND
Acephate	45 - 2774	ND	Metalaxyl	51 - 2788	ND
Acetamiprid	43 - 2778	ND	Methiocarb	39 - 2735	ND
Azoxystrobin	40 - 2739	ND	Methomyl	42 - 2747	ND
Bifenazate	42 - 2765	ND	MGK 264 1	187 - 1618	ND
Boscalid	15 - 2744	ND	MGK 264 2	129 - 1129	ND
Carbaryl	40 - 2776	ND	Myclobutanil	37 - 2661	ND
Carbofuran	43 - 2761	ND	Naled	28 - 2666	ND
Chlorantraniliprole	46 - 2731	ND	Oxamyl	3 - 2768	ND
Chlorpyrifos	47 - 2776	ND	Pacllobutrazol	41 - 2732	ND
Clofentezine	306 - 2776	ND	Permethrin	340 - 2681	ND
Diazinon	298 - 2777	ND	Phosmet	41 - 2752	ND
Dichlorvos	311 - 2758	ND	Prophos	290 - 2708	ND
Dimethoate	45 - 2766	ND	Propoxur	39 - 2744	ND
E-Fenpyroximate	296 - 2737	ND	Pyridaben	302 - 2767	ND
Etofenprox	42 - 2726	ND	Spinosad A	36 - 2242	ND
Etoxazole	299 - 2708	ND	Spinosad D	55 - 497	ND
Fenoxycarb	45 - 2737	ND	Spiromesifen	306 - 2722	ND
Fipronil	39 - 2733	ND	Spirotetramat	292 - 2784	ND
Flonicamid	4 - 2732	ND	Spiroxamine 1	17 - 1160	ND
Fludioxonil	260 - 2633	ND	Spiroxamine 2	21 - 1502	ND
Hexythiazox	49 - 2737	ND	Tebuconazole	259 - 2755	ND
Imazalil	286 - 2760	ND	Thiacloprid	41 - 2763	ND
Imidacloprid	51 - 2800	ND	Thiamethoxam	45 - 2752	ND
Kresoxim-methyl	53 - 2822	ND	Trifloxystrobin	41 - 2736	ND

**Final Approval**



Karen Winternheimer  
16Jun2022  
04:48:00 PM MDT

PREPARED BY / DATE



Daniel Weidensaul  
16Jun2022  
05:01:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/f3024b12-9b3e-454e-8b15-031fa6dc723d>

**Definitions**

ND = None Detected (defined by dynamic range of the method)  
Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range  
ppb = Parts Per Billion

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2017 Accredited by A2LA.



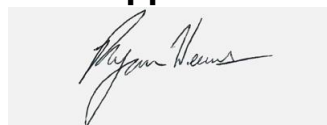
Cert #4329.02  
f3024b129b3e454e8b15031fa6dc723d.1

### 900 mg 5G Broad Spectrum Tincture Bulk in EVOO

Batch ID or Lot Number: <b>BCA-000389-220607</b>	Test: <b>Heavy Metals</b>	Reported: <b>14Jun2022</b>	USDA License: NA
Matrix: Unit Co	Test ID: T000209813	Started: 14Jun2022	Sampler ID: NA
	Method(s): TM19 (ICP-MS): Heavy Metals	Received: 10Jun2022	Status: NA

Heavy Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.05 - 4.58	ND	
Cadmium	0.05 - 4.53	ND	
Mercury	0.04 - 4.43	ND	
Lead	0.05 - 4.66	ND	

### Final Approval



Ryan Weems  
 14Jun2022  
 02:50:00 PM MDT

PREPARED BY / DATE



Daniel Weidensaul  
 14Jun2022  
 02:53:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/f6748d30-6fdd-4791-80a7-c909ec3f3a99>

**Definitions**  
 ND = None Detected (defined by dynamic range of the method)  
 Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range

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Cert #4329.02


CDPHE Certified  
 f6748d306fdd479180a7c909ec3f3a99.1

### 900 mg 5G Broad Spectrum Tincture Bulk in EVOO

Batch ID or Lot Number: <b>BCA-000389-220607</b>	Test: <b>Potency</b>	Reported: <b>14Jun2022</b>	USDA License: N/A
Matrix: Concentrate	Test ID: T000209811	Started: 13Jun2022	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 10Jun2022	Status: Active

Cannabinoids	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.017	0.054	ND	ND	
Cannabichromenic Acid (CBCA)	0.015	0.049	ND	ND	
Cannabidiol (CBD)	0.047	0.139	3.405	34.05	
Cannabidiolic Acid (CBDA)	0.048	0.143	ND	ND	
Cannabidivarin (CBDV)	0.011	0.033	<LOQ	0.12	
Cannabidivarinic Acid (CBDVA)	0.020	0.060	ND	ND	
Cannabigerol (CBG)	0.009	0.030	0.221	2.21	
Cannabigerolic Acid (CBGA)	0.039	0.127	ND	ND	
Cannabinol (CBN)	0.012	0.040	ND	ND	
Cannabinolic Acid (CBNA)	0.027	0.087	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.047	0.152	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.042	0.138	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.038	0.122	ND	ND	
Tetrahydrocannabivarin (THCV)	0.009	0.028	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.033	0.108	ND	ND	
<b>Total Cannabinoids</b>			<b>3.638</b>	<b>36.38</b>	
Total Potential THC			ND	ND	
Total Potential CBD			3.405	34.05	

### Final Approval



Ryan Weems  
 14Jun2022  
 12:07:00 PM MDT

PREPARED BY / DATE



Karen Winternheimer  
 14Jun2022  
 12:11:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/08cc1533-84b5-4a8e-80c5-f618bbdeb67b>

**Definitions**  
 % = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method).  
 Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THCa \*(0.877)) and Total CBD = CBD + (CBDA \*(0.877)).

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2017 Accredited by A2LA.



Cert #4329.02

CDPHE Certified

08cc153384b54a8e80c5f618bbdeb67b.1

### 900 Natural

Batch ID or Lot Number: 220614A, 220527F	Test: <b>Microbial Contaminants</b>	Reported: <b>27Jun2022</b>	USDA License: NA
Matrix: Finished Product	Test ID: T000211078	Started: 22Jun2022	Sampler ID: NA
	Method(s): TM25 (PCR) TM24, TM26, TM27 (Culture Plating)	Received: 21Jun2022	Status: NA

### Microbial Contaminants

Microbial Contaminants	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10 <sup>0</sup> CFU/g	NA	Absent	Free from visual mold, mildew, and foreign matter
<i>Salmonella</i>	TM25: PCR	10 <sup>0</sup> CFU/g	NA	Absent	
Total Yeast and Mold*	TM24: Culture Plating	10 <sup>1</sup> CFU/g	1.0x10 <sup>2</sup> - 1.5x10 <sup>4</sup>	None Detected	
Total Aerobic Count*	TM26: Culture Plating	10 <sup>2</sup> CFU/g	1.0x10 <sup>3</sup> - 1.5x10 <sup>5</sup>	None Detected	
Total Coliforms*	TM27: Culture Plating	10 <sup>1</sup> CFU/g	1.0x10 <sup>2</sup> - 1.5x10 <sup>4</sup>	None Detected	

### Final Approval



Carly Bader  
25Jun2022  
12:50:00 PM MDT

PREPARED BY / DATE



Eden Thompson-Wright  
27Jun2022  
09:32:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/f833dab2-7a86-42a0-9d13-d17ec12a16cd>

#### Definitions

\* Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form. Examples: 10<sup>2</sup> = 100 CFU, 10<sup>3</sup> = 1,000 CFU, 10<sup>4</sup> = 10,000 CFU, 10<sup>5</sup> = 100,000 CFU  
 CFU/g = Colony Forming Units per Gram, LOD = Limit of Detection  
 ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation  
 STEC = Shiga Toxin-Producing E. coli

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2017 Accredited by A2LA.



Cert #4329.02  
f833dab27a8642a09d13d17ec12a16cd.1

### 900 mg 5G Broad Spectrum Tincture Bulk in EVOO

Batch ID or Lot Number: <b>BCA-000389-220607</b>	Test: <b>Mycotoxins</b>	Reported: <b>14Jun2022</b>	USDA License: N/A
Matrix: Concentrate	Test ID: T000209815	Started: 13Jun2022	Sampler ID: N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 10Jun2022	Status: Active

Mycotoxins	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	3.75 - 130.56	ND	N/A
Aflatoxin B1	1.02 - 32.57	ND	
Aflatoxin B2	1.05 - 32.35	ND	
Aflatoxin G1	0.99 - 32.70	ND	
Aflatoxin G2	1.05 - 32.66	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

### Final Approval



Jacob Miller  
 14Jun2022  
 02:49:00 PM MDT

PREPARED BY / DATE



Ryan Weems  
 14Jun2022  
 02:52:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/c59f3eb4-008d-41b3-a826-15b3a83185b3>

#### Definitions

ND = None Detected (defined by dynamic range of the method)  
 Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2017 Accredited by A2LA.



Cert #4329.02

CDPHE Certified  
 c59f3eb4008d41b3a82615b3a83185b3.1



### 900 mg 5G Broad Spectrum Tincture Bulk in EVOO

Batch ID or Lot Number: <b>BCA-000389-220607</b>	Test: <b>Residual Solvents</b>	Reported: <b>14Jun2022</b>	USDA License: N/A
Matrix: Concentrate	Test ID: T000209814	Started: 14Jun2022	Sampler ID: N/A
	Method(s): TM04 (GC-MS): Residual Solvents	Received: 10Jun2022	Status: Active

Residual Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	91 - 1825	ND	
Butanes (Isobutane, n-Butane)	139 - 2779	ND	
Methanol	57 - 1131	ND	
Pentane	81 - 1620	ND	
Ethanol	82 - 1640	ND	
Acetone	88 - 1752	ND	
Isopropyl Alcohol	93 - 1850	ND	
Hexane	6 - 114	ND	
Ethyl Acetate	91 - 1828	ND	
Benzene	0.2 - 3.7	ND	
Heptanes	89 - 1783	ND	
Toluene	17 - 332	ND	
Xylenes (m,p,o-Xylenes)	121 - 2428	ND	

### Final Approval



Jacob Miller  
 14Jun2022  
 05:51:00 PM MDT

PREPARED BY / DATE



Ryan Weems  
 14Jun2022  
 05:55:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/8bdc2347-eb59-41b2-b5b8-b052adf9cdbc>

**Definitions**  
 ND = None Detected (defined by dynamic range of the method)  
 Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2017 Accredited by A2LA.



Cert #4329.02

CDPHE Certified  
 8bdc2347eb5941b2b5b8b052adf9cdbc.1

**MCT-for-Posting-OGUMSL22-220802A.pdf**

Uploaded by: Eugene DeVan

Position: FWA

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** Strawberry Lemonade Gummies - Organic + Kosher Certified  
**PRODUCT STRENGTH:** 25mg CBD / gummy  
**BATCH:** 220802A  
**BEST BY DATE:** 5/03/2024 & 6/16/2024  
**HEMP EXTRACT LOT:** 637

### Physical Attributes

Test	Method	Specification	Results
Color	Internal	Medium Pink	PASS
Odor	Internal	Sweet, strawberry, lemon	PASS
Appearance	Internal	Medium pink gummies with sugar coating in child proof container	PASS
Primary Package Eval.	Internal	Container clean and free of filth. Container caps tight and seals intact	PASS
Secondary Package Eval.	Internal	Labeling Compliance Checked, Sufficient cushion material exists. Box taped and secure.	PASS

### Review of Third-Party Analysis

Panel	Method	Specification	Results*	Pass/Fail
<b>Potency - Total CBD</b>	HPLC-UV DAD	*NLT 25 mg / softgel	<b>28.809mg</b>	PASS
<b>Potency - D9-THC</b>	HPLC-UV DAD	LOQ: <0.01% (broad spectrum)	<b>ND</b>	PASS
<b>Expanded Pesticide Panel</b>	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>Below LOQ</b>	PASS
<b>Microbial</b> Escherichia coli (STEC)	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	<b>Absent</b>	PASS
<b>Microbial</b> Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	<b>Absent</b>	PASS
<b>Microbial</b> Yeast and Mold	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Coliforms*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Aerobic Count*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>3</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Heavy Metals Panel</b>	ICP-MS	Arsenic (As): ≤1.5 ppm Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	<b>Below LOQ</b>	PASS
<b>Mycotoxins</b>	ICP-MS	Total Aflatoxins <20 ppb† Aflatoxin B1 < 5 ppb Ochratoxin < 5ppb	<b>Below LOQ</b>	PASS
<b>Residual Solvents</b>	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>Below LOQ</b>	PASS

\* \*Level of Quantitation, † Parts Per Million ‡ Part Per Billion  
 CFU/g=Colony Forming Units per Gram  
 \* Nothing Less Than  
 10<sup>2</sup>=100 CFU  
 10<sup>3</sup>=1,000 CFU

Quality Certified Kristen Mefford 5/20/2022  
 Name Date

**25mg BS Strawberry Lemonade (organic)**


Batch ID or Lot Number: <b>637</b>	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 5 of 6
Reported: <b>19May2022</b>	Started: 10May2022	Received: 05May2022	


**Cannabinoids - Colorado Compliance**

Test ID: T000204001  
Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.007	0.022	ND	ND	Amendment to T000204001 issued 05May2022 to correct batch ID.
Cannabichromenic Acid (CBCA)	0.007	0.020	ND	ND	
Cannabidiol (CBD)	0.017	0.056	0.873	8.73	
Cannabidiolic Acid (CBDA)	0.017	0.057	ND	ND	
Cannabidivarin (CBDV)	0.004	0.013	<LOQ	0.04	
Cannabidivarinic Acid (CBDVA)	0.007	0.024	ND	ND	
Cannabigerol (CBG)	0.004	0.012	0.095	0.95	
Cannabigerolic Acid (CBGA)	0.017	0.052	ND	ND	
Cannabinol (CBN)	0.005	0.016	ND	ND	
Cannabinolic Acid (CBNA)	0.012	0.035	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.020	0.062	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.018	0.056	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.016	0.050	ND	ND	
Tetrahydrocannabivarin (THCV)	0.004	0.011	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.014	0.044	ND	ND	
<b>Total Cannabinoids</b>			<b>0.972</b>	<b>9.72</b>	
Total Potential THC			ND	ND	
Total Potential CBD			0.873	8.73	

**Final Approval**

  
 Sam Smith  
 19May2022  
 02:25:00 PM MDT  
 PREPARED BY / DATE

  
 Ryan Weems  
 19May2022  
 02:28:00 PM MDT  
 APPROVED BY / DATE

## 25mg BS Strawberry Lemonade (organic)

Batch ID or Lot Number: <b>637</b>	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 4 of 6
Reported: <b>19May2022</b>	Started: 10May2022	Received: 05May2022	

### Pesticides


Test ID: T000204002

Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)		Dynamic Range (ppb)	Result (ppb)	
Abamectin	262 - 2803	ND		Malathion	295 - 2716	ND
Acephate	40 - 2774	ND		Metalaxyl	44 - 2747	ND
Acetamiprid	40 - 2750	ND		Methiocarb	42 - 2784	ND
Azoxystrobin	46 - 2733	ND		Methomyl	40 - 2754	ND
Bifenazate	44 - 2768	ND		MGK 264 1	172 - 1642	ND
Boscalid	49 - 2825	ND		MGK 264 2	116 - 1125	ND
Carbaryl	42 - 2730	ND		Myclobutanil	48 - 2839	ND
Carbofuran	44 - 2708	ND		Naled	49 - 2767	ND
Chlorantraniliprole	50 - 2794	ND		Oxamyl	40 - 2763	ND
Chlorpyrifos	42 - 2806	ND		Paclobutrazol	42 - 2729	ND
Clofentezine	280 - 2751	ND		Permethrin	289 - 2752	ND
Diazinon	295 - 2773	ND		Phosmet	46 - 2774	ND
Dichlorvos	280 - 2747	ND		Prophos	288 - 2780	ND
Dimethoate	42 - 2738	ND		Propoxur	44 - 2720	ND
E-Fenpyroximate	290 - 2748	ND		Pyridaben	275 - 2783	ND
Etofenprox	43 - 2756	ND		Spinosad A	36 - 2251	ND
Etoxazole	288 - 2744	ND		Spinosad D	48 - 510	ND
Fenoxycarb	43 - 2750	ND		Spiromesifen	267 - 2787	ND
Fipronil	39 - 2701	ND		Spirotetramat	292 - 2679	ND
Flonicamid	49 - 2737	ND		Spiroxamine 1	19 - 1198	ND
Fludioxonil	294 - 2770	ND		Spiroxamine 2	24 - 1555	ND
Hexythiazox	45 - 2754	ND		Tebuconazole	291 - 2779	ND
Imazalil	289 - 2784	ND		Thiacloprid	41 - 2746	ND
Imidacloprid	44 - 2763	ND		Thiamethoxam	42 - 2757	ND
Kresoxim-methyl	56 - 2820	ND		Trifloxystrobin	44 - 2738	ND

### Final Approval

  
 Ryan Weems  
 19May2022  
 02:12:00 PM MDT  
 PREPARED BY / DATE

  
 Sam Smith  
 19May2022  
 02:25:00 PM MDT  
 APPROVED BY / DATE

**25mg BS Strawberry Lemonade (organic)**


Batch ID or Lot Number: <b>637</b>	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 6 of 6
Reported: <b>19May2022</b>	Started: 10May2022	Received: 05May2022	


**Microbial Contaminants - Colorado Compliance**

Test ID: T000204003  
 Methods: TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)

	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10 <sup>0</sup> CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter Amendment to report T000204003 for batch ID correction. SCH 19May2022
Salmonella	TM25: PCR	10 <sup>0</sup> CFU/25g	NA	Absent	
Total Yeast and Mold*	TM24: Culture Plating	10 <sup>1</sup> CFU/g	1.0x10 <sup>2</sup> - 1.5x10 <sup>4</sup>	None Detected	
Total Aerobic Count*	TM26: Culture Plating	10 <sup>2</sup> CFU/g	1.0x10 <sup>3</sup> - 1.5x10 <sup>5</sup>	None Detected	
Total Coliforms*	TM27: Culture Plating	10 <sup>1</sup> CFU/g	1.0x10 <sup>2</sup> - 1.5x10 <sup>4</sup>	None Detected	

**Final Approval**

  
 Sarah Henning  
 19May2022  
 03:24:00 PM MDT  
 PREPARED BY / DATE

  
 Carly Bader  
 19May2022  
 03:51:00 PM MDT  
 APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/50c6d8c0-075c-469c-8b29-630d51dd8ca5>

**Definitions**  
 LOD = Limit of Detection, ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation, PPB = Parts per Billion, % = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method). Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THCa \*(0.877)) and Total CBD = CBD + (CBDa \*(0.877)). Fail equates to a concentration level of Delta 9-THC, on a dry weight basis, higher than 0.3 percent + or - the measurement uncertainty. Total Potential THC is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step. Total THC = THC + (THCa \*(0.877)). ALOQ = Above Limit Of Quantitation (defined by dynamic range of the method), CFU/g = Colony Forming Units per Gram. Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form. Examples: 10<sup>2</sup> = 100 CFU, 10<sup>3</sup> = 1,000 CFU, 10<sup>4</sup> = 10,000 CFU, 10<sup>5</sup> = 100,000 CFU.

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2017 Accredited by A2LA. Some tests listed on this COA may not be within our scope of A2LA accreditation. Please visit [A2LA for more details](#).



Cert #4329.02  
 50c6d8c0075c469c8b29630d51dd8ca5.1

**25mg BS Strawberry Lemonade (organic)**

Batch ID or Lot Number: <b>637</b>	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 3 of 6
Reported: <b>19May2022</b>	Started: 10May2022	Received: 05May2022	

**Heavy Metals -  
Colorado Compliance**

Test ID: T000204004


Methods: TM19 (ICP-MS): Heavy

Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.05 - 4.67	ND	Amendment to certificate T000204004 issued on 09May2022, batch ID updated.
Cadmium	0.05 - 4.82	ND	
Mercury	0.05 - 4.54	ND	
Lead	0.03 - 3.04	ND	

**Final Approval**

Ryan Weems  
19May2022  
01:54:00 PM MDT

PREPARED BY / DATE



Sam Smith  
19May2022  
02:17:00 PM MDT

APPROVED BY / DATE

**25mg BS Strawberry Lemonade (organic)**

Batch ID or Lot Number: <b>637</b>	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 1 of 6
Reported: <b>19May2022</b>	Started: 10May2022	Received: 05May2022	


**Mycotoxins - Colorado Compliance**

Test ID: T000204006

Methods: TM18 (UHPLC-QQQ)

LCMS/MS: Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	3.25 - 127.17	ND	Amendment to T000204006 issued 11May2022 to correct batch ID.
Aflatoxin B1	1.36 - 32.94	ND	N/A
Aflatoxin B2	1.49 - 32.94	ND	
Aflatoxin G1	1.46 - 32.55	ND	
Aflatoxin G2	1.59 - 32.61	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

**Final Approval**  
PREPARED BY / DATE  
Sam Smith  
19May2022  
11:27:00 AM MDT  
APPROVED BY / DATE  
Ryan Weems  
19May2022  
11:42:00 AM MDT



**25mg BS Strawberry Lemonade (organic)**

Batch ID or Lot Number: <b>637</b>	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 2 of 6
Reported: <b>19May2022</b>	Started: 10May2022	Received: 05May2022	


**Residual Solvents - Colorado Compliance**

Test ID: T000204005  
Methods: TM04 (GC-MS): Residual Solvents

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	92 - 1841	ND	Amendment to certificate T000204005 issued on 09May2022, batch ID updated.
Butanes (Isobutane, n-Butane)	139 - 2778	ND	
Methanol	57 - 1143	ND	
Pentane	79 - 1579	ND	
Ethanol	80 - 1603	>1603	
Acetone	89 - 1785	ND	
Isopropyl Alcohol	93 - 1860	ND	
Hexane	5 - 110	ND	
Ethyl Acetate	92 - 1848	ND	
Benzene	0.2 - 3.8	ND	
Heptanes	93 - 1855	ND	
Toluene	18 - 358	ND	
Xylenes (m,p,o-Xylenes)	121 - 2414	ND	

**Final Approval**

  
 Ryan Weems  
 19May2022  
 01:30:00 PM MDT  
 PREPARED BY / DATE

  
 Sam Smith  
 19May2022  
 02:29:00 PM MDT  
 APPROVED BY / DATE

**MCT-GUMBB5-Various-Lots-Exp-05.06.2024.pdf**

Uploaded by: Eugene DeVan

Position: FWA

# Certificate of Analysis

**PRODUCT NAME:** THC:CBD Gummies  
**PRODUCT STRENGTH:** 25mg CBD, 5mg THC  
**BATCH:** Various lots based on Exp date 05/06/2024  
**BEST BY DATE:** 5/6/2024  
**EXTRACT LOT:** 00635

## Physical Attributes

Test	Method	Specification	Results
Color	Internal	Multicolored	PASS
Odor	Internal	Sweet	PASS
Appearance	Internal	Sugar Coated	PASS
Primary Package Eval.	Internal	Container clean and free of filth. Container caps tight and seals intact	PASS
Secondary Package Eval.	Internal	Labeling Compliance Checked, Sufficient cushion material exists. Box taped and secure.	PASS

## Review of Third-Party Analysis

Panel	Method	Specification	Results*	Pass/Fail
<b>Potency - Total CBD</b>	HPLC-UV DAD	*LOQ: $\geq 10$ mg / gummy	<b>32.4 mg</b>	PASS
<b>Potency - D9-THC</b>	HPLC-UV DAD	LOQ: $<0.01\%$ (broad spectrum)	<b>6.6mg</b>	PASS
<b>Expanded Pesticide Panel</b>	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>Below LOQ</b>	PASS
<b>Microbial</b> Escherichia coli (STEC)	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 **CFU/25	<b>Absent</b>	PASS
<b>Microbial</b> Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	<b>Absent</b>	PASS
<b>Microbial</b> Yeast and Mold	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ $10^2$ CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Coliforms*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ $10^2$ CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Aerobic Count*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ $10^3$ CFU/gram	<b>Below LOQ</b>	PASS
<b>Heavy Metals</b>	ICP-MS	Arsenic (As): $\leq 1.5$ ppm† Cadmium (Cd): $\leq 0.5$ ppm Lead (Pb): $\leq 0.5$ ppm Mercury (Hg): $\leq 1.5$ ppm	<b>Below LOQ</b>	PASS
<b>Mycotoxins</b>	ICP-MS	Total Aflatoxins $<20$ ppb†† Aflatoxin B1 $< 5$ ppb Ochratoxin $< 5$ ppb	<b>Below LOQ</b>	PASS
<b>Residual Solvents</b>	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR in effect during MFG*	<b>Below LOQ</b>	PASS

\*Level of Quantification  
 \*\*Colony Forming Units per Gram  
 † Parts Per Million †† Part Per Billion

Values expressed in scientific notation.  
 Examples:  
 $10^2=100$   
 $10^3=1,000$

Quality Certified

5/12/22

Date

**5:1 25mg Blueberry Lemonade Mother Liquor**


Batch ID or Lot Number: <b>00635</b>	Test, Test ID and Methods: Various	Matrix: Unit	Page 1 of 1
Reported: <b>04May2022</b>	Started: 04May2022	Received: 04May2022	

**Cannabinoids - Colorado Compliance**

Test ID: T000205888  
Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.248	0.774	5.230	1.58	# of Servings = 1 Sample Weight=3.3g
Cannabichromenic Acid (CBCA)	0.226	0.708	ND	ND	
Cannabidiol (CBD)	0.653	2.067	32.413	9.82	
Cannabidiolic Acid (CBDA)	0.670	2.120	ND	ND	
Cannabidivarin (CBDV)	0.154	0.489	0.601	0.18	
Cannabidivarinic Acid (CBDVA)	0.279	0.884	ND	ND	
Cannabigerol (CBG)	0.141	0.439	3.011	0.91	
Cannabigerolic Acid (CBGA)	0.588	1.836	ND	ND	
Cannabinol (CBN)	0.183	0.573	1.003	0.30	
Cannabinolic Acid (CBNA)	0.401	1.253	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.700	2.187	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.636	1.987	6.613	2.00	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.563	1.760	ND	ND	
Tetrahydrocannabivarin (THCV)	0.128	0.400	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.497	1.553	ND	ND	
<b>Total Cannabinoids</b>			<b>48.871</b>	<b>14.81</b>	
Total Potential THC			6.613	2.00	
Total Potential CBD			32.413	9.82	

**Final Approval**

  
Samantha Smith  
04May2022  
03:44:00 PM MDT  
PREPARED BY / DATE

  
Jacob Miller  
04May2022  
03:53:00 PM MDT  
APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/d63697ce-a34e-435b-8185-7a812d85645d>

**Definitions**  
LOD = Limit of Detection, ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation, PPB = Parts per Billion, % = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method). Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THCa \*(0.877)) and Total CBD = CBD + (CBDa \*(0.877)). Fail equates to a concentration level of Delta 9-THC, on a dry weight basis, higher than 0.3 percent + or - the measurement uncertainty. Total Potential THC is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step. Total THC = THC + (THCa \*(0.877)). ALOQ = Above Limit Of Quantitation (defined by dynamic range of the method), CFU/g = Colony Forming Units per Gram. Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form. Examples: 10^2 = 100 CFU, 10^3 = 1,000 CFU, 10^4 = 10,000 CFU, 10^5 = 100,000 CFU.

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2017 Accredited by A2LA. Some tests listed on this COA may not be within our scope of A2LA accreditation. Please visit [A2LA for more details](#).




Cert #4329.02  
d63697cea34e435b81857a812d85645d.1

### Pineapple 5:1 ML Gummies 25mg CBD + 5mg THC

Batch ID or Lot Number: <b>Lot: 00633</b>	Test: <b>Potency</b>	Reported: <b>04May2022</b>	USDA License: N/A
Matrix: Unit	Test ID: T000205882	Started: 04May2022	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 04May2022	Status: Active

Cannabinoids	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.252	0.786	5.079	1.54	# of Servings = 1 Sample Weight=3.3g
Cannabichromenic Acid (CBCA)	0.230	0.719	ND	ND	
Cannabidiol (CBD)	0.664	2.101	31.432	9.52	
Cannabidiolic Acid (CBDA)	0.681	2.155	ND	ND	
Cannabidivarin (CBDV)	0.157	0.497	0.546	0.17	
Cannabidivarinic Acid (CBDVA)	0.284	0.899	ND	ND	
Cannabigerol (CBG)	0.143	0.446	2.939	0.89	
Cannabigerolic Acid (CBGA)	0.597	1.866	ND	ND	
Cannabinol (CBN)	0.186	0.582	0.970	0.29	
Cannabinolic Acid (CBNA)	0.407	1.273	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.712	2.224	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.646	2.019	6.449	1.95	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.573	1.789	ND	ND	
Tetrahydrocannabivarin (THCV)	0.130	0.406	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.505	1.578	ND	ND	
<b>Total Cannabinoids</b>			<b>47.415</b>	<b>14.37</b>	
Total Potential THC			6.449	1.95	
Total Potential CBD			31.432	9.52	

### Final Approval

  
 Sam Smith  
 04May2022  
 03:44:00 PM MDT  
 PREPARED BY / DATE

  
 Jacob Miller  
 04May2022  
 03:53:00 PM MDT  
 APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/366a30f3-f615-49c5-b585-683f7170359e>

**Definitions**  
 % = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method).  
 Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THCa \*(0.877)) and Total CBD = CBD + (CBDA \*(0.877)).

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2017 Accredited by A2LA.



Cert #4329.02

CDPHE Certified  
 366a30f3f61549c5b585683f7170359e.1

**5:1 25mg Orange Mother Liquor**

Batch ID or Lot Number:	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 1 of 5
Reported: <b>27Apr2022</b>	Started: 27Apr2022	Received: 27Apr2022	


**Cannabinoids - Colorado Compliance**

Test ID: T000204116

Methods: TM14 (HPLC-DAD): Potency – Standard


Cannabinoid Analysis

	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.007	0.022	0.134	1.34	
Cannabichromenic Acid (CBCA)	0.007	0.020	ND	ND	
Cannabidiol (CBD)	0.017	0.059	0.816	8.16	
Cannabidiolic Acid (CBDA)	0.018	0.061	ND	ND	
Cannabidivarin (CBDV)	0.004	0.014	0.014	0.14	
Cannabidivarinic Acid (CBDVA)	0.007	0.025	ND	ND	
Cannabigerol (CBG)	0.004	0.013	0.076	0.76	
Cannabigerolic Acid (CBGA)	0.018	0.052	ND	ND	
Cannabinol (CBN)	0.006	0.016	0.024	0.24	
Cannabinolic Acid (CBNA)	0.012	0.036	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.021	0.062	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.019	0.057	0.166	1.66	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.017	0.050	ND	ND	
Tetrahydrocannabivarin (THCV)	0.004	0.011	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.015	0.044	ND	ND	
<b>Total Cannabinoids</b>			<b>1.230</b>	<b>12.30</b>	
Total Potential THC			0.166	1.66	
Total Potential CBD			0.816	8.16	

**Final Approval**

Daniel Weidensaul  
27Apr2022  
01:34:00 PM MDT

PREPARED BY / DATE



Jacob Miller  
27Apr2022  
01:36:00 PM MDT

APPROVED BY / DATE

**5:1 25mg Orange Mother Liquor**

Batch ID or Lot Number:	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 2 of 5
Reported: <b>27Apr2022</b>	Started: 27Apr2022	Received: 27Apr2022	

**Residual Solvents -  
Colorado Compliance**

Test ID: T000204120

Methods: TM04 (GC-MS): Residual

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	98 - 1962	ND	
Butanes (Isobutane, n-Butane)	198 - 3955	ND	
Methanol	72 - 1439	ND	
Pentane	105 - 2096	ND	
Ethanol	112 - 2243	>2243	
Acetone	113 - 2250	ND	
Isopropyl Alcohol	121 - 2415	ND	
Hexane	7 - 143	ND	
Ethyl Acetate	117 - 2336	ND	
Benzene	0.2 - 4.8	ND	
Heptanes	114 - 2274	ND	
Toluene	21 - 419	ND	
Xylenes (m,p,o-Xylenes)	152 - 3033	ND	

**Final Approval**

Jacob Miller  
29Apr2022  
11:18:00 AM MDT  
PREPARED BY / DATE



Ryan Weems  
29Apr2022  
11:20:00 AM MDT  
APPROVED BY / DATE

### 5:1 25mg Orange Mother Liquor

Batch ID or Lot Number:	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 3 of 5
Reported: 27Apr2022	Started: 27Apr2022	Received: 27Apr2022	

### Microbial Contaminants - Colorado Compliance

Test ID: T000204118  
 Methods: TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)

	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10 <sup>0</sup> CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter
Salmonella	TM25: PCR	10 <sup>0</sup> CFU/25g	NA	Absent	
Total Yeast and Mold*	TM24: Culture Plating	10 <sup>1</sup> CFU/g	1.0x10 <sup>2</sup> - 1.5x10 <sup>4</sup>	None Detected	
Total Aerobic Count*	TM26: Culture Plating	10 <sup>2</sup> CFU/g	1.0x10 <sup>3</sup> - 1.5x10 <sup>5</sup>	None Detected	
Total Coliforms*	TM27: Culture Plating	10 <sup>1</sup> CFU/g	1.0x10 <sup>2</sup> - 1.5x10 <sup>4</sup>	None Detected	

#### Final Approval

 Eden Thompson-Wright 30Apr2022 01:41:00 PM MDT	 Brett Hudson 02May2022 09:51:00 AM MDT
PREPARED BY / DATE	APPROVED BY / DATE

### Heavy Metals - Colorado Compliance

Test ID: T000204119  
 Methods: TM19 (ICP-MS): Heavy Metals

Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.04 - 4.20	ND	
Cadmium	0.04 - 4.27	ND	
Mercury	0.04 - 4.28	ND	
Lead	0.04 - 4.19	ND	

#### Final Approval

 Sam Smith 02May2022 07:54:00 AM MDT	 Alex Smith 02May2022 11:55:00 AM MDT
PREPARED BY / DATE	APPROVED BY / DATE



### 5:1 25mg Orange Mother Liquor

Batch ID or Lot Number:	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 4 of 5
Reported: <b>27Apr2022</b>	Started: 27Apr2022	Received: 27Apr2022	


### Pesticides

Test ID: T000204117

Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)		Dynamic Range (ppb)	Result (ppb)	
Abamectin	286 - 2722	ND		Malathion	306 - 2674	ND
Acephate	41 - 2729	ND		Metalaxyl	42 - 2696	ND
Acetamiprid	42 - 2729	ND		Methiocarb	42 - 2689	ND
Azoxystrobin	42 - 2640	ND		Methomyl	39 - 2710	ND
Bifenazate	43 - 2645	ND		MGK 264 1	181 - 1627	ND
Boscalid	39 - 2763	ND		MGK 264 2	126 - 1144	ND
Carbaryl	38 - 2724	ND		Myclobutanil	47 - 2742	ND
Carbofuran	41 - 2722	ND		Naled	47 - 2761	ND
Chlorantraniliprole	49 - 2731	ND		Oxamyl	41 - 2719	ND
Chlorpyrifos	46 - 2795	ND		Paclobutrazol	42 - 2714	ND
Clofentezine	282 - 2718	ND		Permethrin	313 - 2784	ND
Diazinon	307 - 2708	ND		Phosmet	42 - 2697	ND
Dichlorvos	272 - 2708	ND		Prophos	269 - 2697	ND
Dimethoate	41 - 2694	ND		Propoxur	42 - 2728	ND
E-Fenpyroximate	302 - 2741	ND		Pyridaben	298 - 2758	ND
Etofenprox	41 - 2775	ND		Spinosad A	36 - 2243	ND
Etoxazole	300 - 2746	ND		Spinosad D	49 - 503	ND
Fenoxycarb	28 - 2686	ND		Spiromesifen	261 - 2759	ND
Fipronil	63 - 2662	ND		Spirotetramat	303 - 2636	ND
Flonicamid	48 - 2711	ND		Spiroxamine 1	18 - 1160	ND
Fludioxonil	280 - 2710	ND		Spiroxamine 2	25 - 1529	ND
Hexythiazox	43 - 2775	ND		Tebuconazole	319 - 2661	ND
Imazalil	284 - 2704	ND		Thiacloprid	43 - 2682	ND
Imidacloprid	42 - 2724	ND		Thiamethoxam	42 - 2718	ND
Kresoxim-methyl	48 - 2679	ND		Trifloxystrobin	42 - 2738	ND

### Final Approval

 Sam Smith  
02May2022  
07:53:00 AM MDT  
PREPARED BY / DATE

 Alex Smith  
02May2022  
12:03:00 PM MDT  
APPROVED BY / DATE

**5:1 25mg Orange Mother Liquor**

Batch ID or Lot Number:	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 5 of 5
Reported: <b>27Apr2022</b>	Started: 27Apr2022	Received: 27Apr2022	



<https://results.botanacor.com/api/v1/coas/uuid/e16a785f-cd88-4e7a-bfe3-78a551938ff0>

**Definitions**

LOD = Limit of Detection, ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation, PPB = Parts per Billion, % = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method). Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THCa  $\times$  (0.877)) and Total CBD = CBD + (CBDa  $\times$  (0.877)). Fail equates to a concentration level of Delta 9-THC, on a dry weight basis, higher than 0.3 percent + or - the measurement uncertainty. Total Potential THC is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step. Total THC = THC + (THCa  $\times$  (0.877)). ALOQ = Above Limit Of Quantitation (defined by dynamic range of the method), CFU/g = Colony Forming Units per Gram. Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form. Examples:  $10^2$  = 100 CFU,  $10^3$  = 1,000 CFU,  $10^4$  = 10,000 CFU,  $10^5$  = 100,000 CFU.

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2017 Accredited by A2LA. Some tests listed on this COA may not be within our scope of A2LA accreditation. Please visit [A2LA for more details](#).



Cert #4329.02  
e16a785fcd884e7abfe378a551938ff0.1

# **Organic Remedies MD Testimony for Senate Bill re C**

Uploaded by: Gary Flythe

Position: FWA

**SB 516 (HB 556) – CANNABIS REFORM - FAVORABLE WITH AMENDMENT**

Madame Chair and Members of the Senate Finance Committee:

My name is Gary Flythe, and I am an owner of Organic Remedies MD. Organic Remedies was awarded a processing facility license as a result of the 2019 RFA that was focused on ensuring diversity and inclusion in Maryland's cannabis program.

In January of this year, we submitted a completed Stage 2 application along with the associated fee. We have worked closely with our assigned investigator and provided to her any and all items requested. Our ownership group has completed their criminal history background checks and those results have been confirmed as received by MMCC. Our ownership group has been investigated and interviewed by MMCC's 3<sup>rd</sup> party financial firm and their final report has been completed and submitted. We have submitted all documents required for pre-inspection and have requested for the physical inspection to be conducted, as our deadline for becoming operational is March 30<sup>th</sup>.

We are ready to begin operations and we have been ready for weeks.

However, we have just been notified that our license approval will not be considered or issued at the final MMCC meeting which takes place on March 21<sup>st</sup>. As such, they have requested for us to submit a request for extension from our operational deadline.

This is not an extension we want or need, however MMCC has told us that they will not be able to finalize their end of things prior to the commission disbanding. We understand the commission is busy, but we have devoted a tremendous amount of time, effort, and money to get to this point; and, we have provided everything that is needed to become operational under the current rules and deadlines.

We are concerned that we, and any other pre-approved applicants who may be in a similar situation, will be adversely affected if those rules and procedures change as a result of events that are beyond our control.

We are in full support of **Senate Bill 516**, however, we respectfully request consideration of the following items of concern being offered as an amendment:

**EXEMPTION FOR PENDING STAGE II APPLICATIONS**

There are several pending Stage II Applications for newly issued licenses to be issued by the MMCC. Such Stage II applications may not receive approval from the MMCC at the March 21 meeting, which may be the last MMCC meeting. It is not fair that such applications may be subjected to rule restrictions and procedures from a different agency. These Stage II Applicants have complied with all applicable rules and regulations regarding for the issuance of new licenses and they are merely waiting for the MMCC and related agencies to process their applications.

***For any pending Stage II applications submitted to the MMCC before March but reviewed by the ATC after the bill passes, the ATC should review the request pursuant to the rules and procedures most favorable to the applicants, in order to not disadvantage those applicants who submitted applications on a timely basis.***

Sincerely,



For Organic Remedies MD, LLC

**SB516.LOSWA.pdf**

Uploaded by: Heather Forsyth

Position: FWA

**ANTHONY G. BROWN**  
*Attorney General*

**CANDACE MCLAREN LANHAM**  
*Chief of Staff*

**CAROLYN QUATTROCKI**  
*Deputy Attorney General*

Writer's Fax No.  
**410.576.6571**



**WILLIAM D. GRUHN**  
*Chief*  
Consumer Protection Division

**STATE OF MARYLAND**  
**OFFICE OF THE ATTORNEY GENERAL**  
**CONSUMER PROTECTION DIVISION**

Writer's Direct Dial No.  
**410.576.6513**

March 8, 2023

**TO:** The Honorable Melony Griffith, Chair  
Senate Finance Committee  
The Honorable Guy Guzzone, Chair  
Senate Budget and Taxation Committee  
The Honorable C. T. Wilson, Chair  
House Economic Matters Committee

**FROM:** The Office of the Attorney General, Consumer Protection Division

**RE:** SB516/HB556 – Cannabis Reform

The Consumer Protection Division of the Office of the Attorney General supports HB556/SB516, Cannabis Reform, with friendly amendments to provide minimum, baseline labeling and advertising consumer protections. Most of these suggested changes are offered in an effort to strengthen the protections against and prohibition of acts that would make cannabis and cannabis products attractive to underage persons, borrowing from best practices in other states and global experience with the effects of tobacco addiction on multiple generations. Drawing from that experience, we urge legislators to consider robust guardrails at the outset to mitigate potential known and unknown harm – as we have learned, some harm cannot be undone.

**SUBTITLE 2. CANNABIS REGULATION AND ENFORCEMENT DIVISION**

**36-203**

- (A) THE DIVISION SHALL:
- (2) ON OR BEFORE JULY 1, 2023, ADOPT EMERGENCY REGULATIONS TO:
- (V) ESTABLISH OPERATING REQUIREMENTS FOR CANNABIS LICENSEES,

INCLUDING REQUIREMENTS FOR:

4. PACKAGING AND LABELING OF CANNABIS AND CANNABIS RELATED PRODUCTS, **INCLUDING PLAIN AND OPAQUE CHILD RESISTENT PACKAGING AND WARNINGS, INCLUDING “KEEP AWAY FROM CHILDREN”**; AND

**SUBTITLE 9. ADVERTISING.**

**36–901.**

**(A) “ADVERTISMENT” MEANS THE PUBLICATION, DISSEMINATION, OR CIRCULATION OF ANY AUDITORY, VISUAL, DIGITAL, ORAL OR WRITTEN MATTER, INCLUDING LABELING, PACKAGING, AND BRANDING, THAT IS DIRECTLY OR INDIRECTLY CALCULATED TO INDUCE THE SALE OF CANNABIS OR ANY CANNABIS-RELATED PRODUCT OR SERVICE.**

**Rationale:** We added a definition of advertisement because stakeholders should be aware that advertising is broadly defined to ensure consumer protections.

**(B) ADVERTISEMENTS FOR MEDICAL CANNABIS AND MEDICAL CANNABIS PRODUCTS OR MEDICAL CANNABIS-RELATED SERVICES THAT MAKE THERAPEUTIC OR MEDICAL CLAIMS SHALL:**

**(1) BE SUPPORTED BY COMPETENT AND RELIABLE SCIENTIFIC EVIDENCE; ~~SUBSTANTIAL CLINICAL EVIDENCE OR SUBSTANTIAL CLINICAL DATA~~; AND**

**(2) INCLUDE INFORMATION ON THE MOST ~~SIGNIFICANT~~ SERIOUS AND MOST COMMON SIDE EFFECTS OR RISKS ASSOCIATED WITH THE USE OF CANNABIS.**

**Rationale:** We replace the standard for making medical or therapeutic claims because “substantial clinical experience” or “substantial clinical data” are standards applied to certain types of claims involving prescription drugs that have gone through the FDA’s rigorous pre-market approval process. As cannabis has not gone through this process, and is not an FDA-approved prescription drug, any medical or therapeutic claims should be measured against the more rigorous FTC standard of “competent and reliable scientific evidence.” The FTC standard of “competent and reliable scientific evidence” was applied in *T-Up, Inc. v. Consumer Protection Division*, 145 Md. App. 27 (2002), which defined the standard to “include[s] tests, analysis, research, studies, or other evidence based on the expertise of professionals in the relevant area, that have been conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results. For

health products such as those sold in *T-Up*, competent and reliable scientific evidence shall include at least two adequate, and well-controlled, double-blinded clinical studies."

We replace "significant" side effects with "serious and most common" side effects in the requirement at (2) because a side effect may be serious and not very common, or not so serious but very common, and what is serious may be different depending on other qualities of the user (age, overall health, usage, and more), and common side effects may become serious if multiplied. We believe replacing "significant" with "serious and most common" provides important information to consumers and brings the requirement closer to the requirements under federal law. Moreover, [FDA guidance](#) permits the disclosure of *the most serious and most common risks* as an alternate disclosure approach in direct-to-consumer print ads about prescription drugs.

**(C) ADVERTISEMENTS FOR MEDICAL CANNABIS OR MEDICAL CANNABIS PRODUCTS SHALL INCLUDE A STATEMENT THAT THE PRODUCT IS FOR USE ONLY BY A QUALIFYING PATIENT.**

**(D) ADVERTISEMENTS FOR ADULT-USE CANNABIS OR ADULT-USE CANNABIS-RELATED PRODUCTS OR SERVICES SHALL NOT INCLUDE HEALTH, THERAPEUTIC OR MEDICINAL CLAIMS.**

**Rationale:** We add the prohibition at (D) because the FDA has not approved Cannabis as an over-the-counter drug, dietary supplement, or food additive. The FDA has issued warning letters to firms marketing CBD products to treat diseases or for other therapeutic uses: <https://www.fda.gov/news-events/public-health-focus/warning-letters-and-test-results-cannabidiol-related-products>

**36-902.**

**(A) AN ADVERTISEMENT FOR A CANNABIS LICENSEE, CANNABIS PRODUCT, OR CANNABIS-RELATED PRODUCT OR SERVICE MAY NOT:**

- (1) ~~MAKE A STATEMENT THAT IS FALSE OR MISLEADING IN A MATERIAL WAY OR IS OTHERWISE VIOLATE~~ TITLE 13, SUBTITLE 3 OF THE COMMERCIAL LAW ARTICLE;**

**Rationale:** We strike the words "in a material way" from page 64, line 28 in the bill. This language is taken from the existing (medical) cannabis statute which prohibits advertisements that make a statement that is false or misleading *in a material way* or is otherwise a violation of Title 13, Subtitle 3 of the Commercial Law Article. We recommend removing the phrase "in a material way," because under the Consumer Protection Act materiality is relevant to omissions of fact, not the provision on false and



misleading statements. To apply materiality to statements rather than omissions thus would be inconsistent with current State law and may create confusion.

**(2) DIRECTLY OR INDIRECTLY TARGET INDIVIDUALS UNDER THE AGE OF 21 OR TAKE ANY ACTION THE PURPOSE OF WHICH IS TO INITIATE, MAINTAIN OR INCREASE THE INCIDENCE OF CANNABIS USE BY INDIVIDUALS UNDER AGE 21;**

**(3) DEPICT OR DISPLAY CANNABIS OR CANNABIS-RELATED PRODUCTS OR SERVICES THAT RESEMBLE THE FORM OF A HUMAN, ANIMAL, INSECT, FRUIT, CANDY, OR TOY; IMITATE FOOD OR DRINK BRANDS; OR RESEMBLE FOOD OR DRINK MARKETED AS SNACKS OR MARKETED TO CHILDREN;**

**(4) CONTAIN A DESIGN, AN ILLUSTRATION, A PICTURE, OR A REPRESENTATION THAT:**

**(I) TARGETS OR IS ATTRACTIVE TO MINORS, INCLUDING THE USE OF NEON COLORS, A CELEBRITY, A MASCOT, A CHARACTER DEVELOPED FOR CHILDREN, CARTOON CHARACTER, OR ANY OTHER DEPICTION THAT IS COMMONLY USED TO MARKET PRODUCTS TO MINORS;**

**(II) DEPICTS OR DISPLAYS THE USE OF CANNABIS OR A CANNABIS-RELATED PRODUCT OR SERVICE INCLUDING CONSUMPTION, SMOKING, OR VAPING OF CANNABIS.**

**(III) DEPICTS OR DISPLAYS ~~ENCOURAGES OR PROMOTES~~ CANNABIS OR A CANNABIS-RELATED PRODUCT OR SERVICE FOR USE AS AN INTOXICANT; OR**

**(IV) IS OBSCENE.**

**(5) ~~ENGAGE IN ADVERTISING~~ BE MADE BY MEANS OF TELEVISION, RADIO, INTERNET, MOBILE APPLICATION, SOCIAL MEDIA, OR OTHER ELECTRONIC COMMUNICATION, OR PRINT PUBLICATION, UNLESS AT LEAST 85% OF THE AUDIENCE IS REASONABLY EXPECTED TO BE AT LEAST 21 YEARS OLD AS DETERMINED BY RELIABLE AND CURRENT AUDIENCE COMPOSITION DATA.**

**(6) EXCEPT FOR EXTERIOR SIGNAGE DISPLAYING ONLY THE NAME OF THE LICENSED CANNABIS BUSINESS ESTABLISHMENT, BE MADE ON THE SIDE OF A BUILDING OR ANOTHER PUBLICLY VISIBLE LOCATION OF ANY FORM, INCLUDING A SIGN, A POSTER, A PLACARD, A**

DEVICE, A GRAPHIC DISPLAY, AN OUTDOOR BILLBOARD, OR A FREESTANDING SIGNBOARD.

**(7) PROMOTE CANNABIS OR CANNABIS-RELATED PRODUCTS OR SERVICES ON SCHOOL, COLLEGE OR UNIVERSITY PROPERTY EXCEPT AT GRADUATE OR PROFESSIONAL COLLEGES OR UNIVERSITIES WHERE MORE THAN 85% OF THE STUDENTS ARE ABOVE THE AGE OF 21.**

**(B) (1) (I) SUBJECT TO SUBPARAGRAPH (II) OF THIS PARAGRAPH, EACH WEBSITE OWNED, MANAGED, OR OPERATED BY A CANNABIS LICENSEE SHALL ADVERTISING CANNABIS OR CANNABIS-RELATED PRODUCTS OR SERVICES SHALL EMPLOY A NEUTRAL AGE-SCREENING MECHANISM, INCLUDING BY USING AN AGE-GATE, AGE-SCREEN, OR AGE VERIFICATION MECHANISM, THAT VERIFIES THAT THE USER IS AT LEAST 21 YEARS OLD BEFORE THE USER CAN ACCESS OR VIEW ANY CONTENT AND BEFORE THE WEBSITE CAN COLLECT THE USER'S ADDRESS, EMAIL ADDRESS, PHONE NUMBER OR OTHER CONTACT INFORMATION TO DISSEMINATE ADVERTISEMENTS.**

**(II) IF A WEBSITE IS APPROPRIATE FOR A QUALIFYING PATIENT WHO IS UNDER THE AGE OF 21 YEARS, THE WEBSITE SHALL PROVIDE AN ALTERNATIVE SCREENING MECHANISM FOR THE QUALIFYING PATIENT.**

**(2) AN ADVERTISEMENT PLACED ON SOCIAL MEDIA OR A MOBILE APPLICATION SHALL INCLUDE A NOTIFICATION THAT AN INDIVIDUAL MUST BE AT LEAST 21 YEARS OLD TO VIEW THE CONTENT.**

**(C) REQUIREMENTS AND PROHIBITIONS APPLICABLE TO A CANNABIS LICENSEE, CANNABIS PRODUCT, OR CANNABIS-RELATED PRODUCT OR SERVICE IN THIS SUBTITLE MAY NOT BE AVOIDED BY HIRING OR CONTRACTING WITH A THIRD-PARTY, OR OUTSOURCING ADVERTISING THAT DOES NOT COMPLY WITH THIS SUBTITLE.**

**(D) A CANNABIS LICENSEE MAY NOT PERMIT USE OF THE CANNABIS LICENSEE'S TRADEMARKS, BRANDS, NAMES, LOCATIONS OR OTHER DISTINGUISHING CHARACTERISTICS FOR THIRD-PARTY USE ON ADVERTISING THAT DOES NOT COMPLY WITH THIS SUBTITLE.**

**(E) THE DIVISION, IN CONSULTATION WITH THE CONSUMER PROTECTION DIVISION SHALL ADOPT REGULATIONS TO ESTABLISH:**

**(1) PROCEDURES FOR THE ENFORCEMENT OF THIS SECTION; AND**

(2) A PROCESS FOR AN INDIVIDUAL TO VOLUNTARILY SUBMIT AN ADVERTISEMENT TO THE DIVISION FOR AN ADVISORY OPINION ON WHETHER THE ADVERTISEMENT COMPLIES WITH THE RESTRICTIONS ON ADVERTISEMENTS FOR CANNABIS, CANNABIS-RELATED PRODUCTS, EDIBLE CANNABIS PRODUCTS, AND CANNABIS-RELATED SERVICES.

Rationale:

We made multiple changes to this section in an effort to strengthen the protections against and prohibition of acts that would make cannabis and cannabis products attractive to underage persons.

We add prohibitions against targeting individuals under age 21 and the depiction or display of cannabis in a way likely to be attractive to minors.

We add provisions to ensure that packaging and labeling comports with prohibitions against packaging in a manner attractive to minors, and to ensure that prohibitions are not avoided by the licensee asking another person or entity to do something they are not allowed to do themselves.

There is an enormous body of evidence about the risks to children who might accidentally or unknowingly ingest cannabis products, especially edibles that are “disguised” as branded foods (e.g., Cannabis Doritos or Gummy Bears), or packaged or labeled in a way that would attract minors (use of cartoons, animal or fruit shaped products, likeness of a character developed for children, and more). This is just one of multiple news articles noting the increase in calls to poison control centers about kids under 5 eating edibles packaged as treat or snack foods. The study reported here noted a quarter of the calls resulted in kids needing hospitalization, and 8% needing intensive care. <https://www.nbcnews.com/health/health-news/reports-young-children-accidentally-eating-marijuana-edibles-soar-rcna63501>

We add a prohibition against promotion of cannabis at schools or colleges unless 85% of the student body is above the age of 21. Multiple studies have concluded that cannabis use in late adolescence and early adulthood is associated with a range of adverse outcomes in later life, including poorer educational outcomes, lower income, greater welfare dependence, and lower social relationship satisfaction. (See, for example, <https://store.samhsa.gov/sites/default/files/pep21-06-01-001.pdf>) In addition, possession and sale of cannabis remains illegal under federal law, and colleges that do not ban illicit substances on school grounds risk forfeiting federal funds in financial aid, research grants, and contracts. It does not help our colleges and universities to enforce a ban against cannabis if we allow it to be advertised on undergraduate campuses.

We clarify and strengthen the verification procedures licensees must use before allowing users to enter their websites or receive advertisements.

We appreciate the Committee's consideration of these amendments which should provide the Commission with minimum baseline standards and provide the Cannabis industry an opportunity to succeed without jeopardizing the health and welfare of Marylanders, particularly future generations. Since the full effects of legalization on public health, safety, and criminal justice will take decades to become apparent, we urge caution while the market stabilizes. With these friendly amendments in mind, we support a favorable report on HB556/SB516 – Cannabis Reform.

**JCohen Roth\_SB 0516 Testimony\_03072023.pdf**

Uploaded by: Jacquie Cohen Roth

Position: FWA



March 7, 2023

Senator Melanie Griffith, Chair  
Senate Finance Committee  
3 East Miller Senate Office Building  
11 Bladen Street  
Annapolis, MD 21401

Dear Chair Griffith:

I am writing as CEO/Founder of CannabizMD, a Maryland certified MBE/SBE/DBE and Tea Pad. Both social enterprises are focused on filling the void of cannabis science and policy education, particularly for women and people of color for advancement in STEM. I am a member of the first cohort of the Master of Science in Medical Cannabis Science and Therapeutics at the University of Maryland School of Pharmacy. I am now an adjunct professor in the same program in classes focused on federal and state cannabis laws and policies. I am in favor of SB 0516, Cannabis Reform, with amendments.

Cannabis is not a panacea nor it is benign. My suggested amendments focus on prioritizing with immediacy the need for education for Maryland cannabis industry employees, volunteers, and any other authorized person as well as public health education.

Firstly, I am an advocate for every cannabis agent and certified caregiver registered in the State of Maryland to be required to have a minimum of two hours of cannabis science and policy education delivered by a Maryland-certified responsible vendor. Cannabis education is especially important in an adult use program where there is likely zero involvement of a cannabis-educated healthcare provider in the commercial transaction.

Secondly, given that this proposed piece of legislation is an Act that is an emergency measure and as such, it is necessary for the immediate preservation of public health and safety that funds from the Cannabis Public Health Fund are swiftly released to qualified vendors with dates specified in the ACT with priority given to MBE and qualified minority-owned entities for education and public awareness campaigns on the potential benefits and harms of cannabis use including driving under the influence of cannabis (DUIC) and to include funding for school-based educational programs.

Cannabis public health education improves public health, and health equity, and will help to combat the illicit cannabis industry.

Best,

Jacquie Cohen Roth, MS  
Founder/CEO

**SB 516 Testimony\_Element MD\_Ted Bibart.pdf**

Uploaded by: James "Ted" Bibart

Position: FWA



Element MD, LLC ⊕ 11501 Progress Ln., Princess Anne, MD 21853

Chairwoman Griffith, Vice Chair Klausmeier, Members of the Committee, my name is Ted Bibart, and I am Director of Operations for Element MD, LLC. I am also an Ohio licensed attorney and formerly a member of Ohio's Medical Marijuana Advisory Committee as appointed by the Speaker of the House. You will hear from Element Majority owner and CEO, Nkechi Iwomi, regarding the specific experience of Element as a House Bill 2 awardee, stand-alone processor. I will be focusing my testimony on the underlying policy considerations Nkechi will touch upon and the simple amendments to the statutory language we would suggest.

First, the current definition of Social Equity Applicant virtually excludes the entirety of the HB 2 licensees. As a result, the HB 2 licensees have a high risk of failure, and the adult use program is unlikely to see a gram of cannabis grown by a Black-owned business for sale until at least of 36 months from the date the market opens on July 1, 2023 (the HB 2 grower awardees were first identified in September of 2019 and 41 months later none are operational). Without also being included in the new definition of Social Equity Applicant, the HB 2 licensees will not have access the resources wisely allotted in SB 516, which are so desperately needed for all minority businesses entering the extremely competitive Maryland marketplace that is utterly dominated by the white-owned businesses originally licensed under the State's initial award process.

Second, the vast majority of the existing growers are vertically integrated with their own processor facilities. Only one of those vertically integrated grower/processors is Black owned (the grower license was issued to this stand-alone processor as a result of HB 2 and the exact type of direct award we are suggesting here) and we believe those licenses have already been sold. The consolidation of these grower/processor licenses occurred largely out of necessity due to the operational realities of not being able to produce your own biomass in the case of a stand-alone processor or the desire to produce your own manufactured products in the case of a grower.

This consolidation also happened when capital markets for cannabis investment were far more robust, and the current crippling effects of inflation were nowhere in sight. With the SB 516 five-year moratorium on license transfer, there is not a level playing field for the HB 2 licenses, even if venture capital were available for M&A (which it's not). Further, the original grower licenses, which were issued exclusively to white-owned businesses through the State's initial award process, also included the ability to receive a dispensary license simply as a result of having received a grower license.

Resultingly, the HB 2 stand-alone processors in particular are left at the mercy of the existing, large vertically integrated cultivation facilities to provide whatever genetics and quality of biomass they are willing to share at the highest price the market will bear. The price of that biomass is ten to fifteen times higher than the price a processor could grow its own flower to process. At present, the HB 2 stand-alone processors are nothing more than waste remediation facilities for the large growers. Without access to high quality biomass, the HB 2 processors cannot produce a high-quality product, and resultingly, are incapable of competing. The stated intention of SB 516 to dramatically reduce the dominance of the illicit market isn't just about competitive pricing, it's about superior product quality.



This is not a matter of increasing profit; it is a matter of survival for the HB 2 stand-alone processors in particular. The economies of scale that give the original licensees such a dramatic market advantage is exacerbated by the increase in market size due to the addition of adult use. Adult use alone will not rescue the HB 2 licensees from their present circumstances, particularly in light of the potential 70 additional processor licenses contemplated under SB 516.

Therefore, we would suggest the following amendments:

1. Section 36-101 (FF) "Social Equity Applicant" be amended to include any "House Bill 2 Licensee".
2. Section 36-404 (D) be amended to include the issuance of a Standard Grower License to any House Bill 2 Licensee who is a stand-alone processor and vice versa with a stand-alone grower, as well as the ability to receive a dispensary license.

The suggested amendments ensure expeditious Social Equity Applicant market participation from the extremely vetted HB 2 awardees who have demonstrated a high propensity for success, the vast majority of which happen to be Black owned. Further, it ensures a level playing field for the HB 2 licensees who are being denied opportunity for M&A and whose enterprise-value of their licenses are being immediately diluted by the issuance of a vast quantity of new licenses, even before many were ever able to open their doors. This dilution of value further reduces the ability to capitalize these businesses either by debt or equity (compounding the plight of the HB 2 licensees of which 11 of the 14 are not operational). Without inclusion as a Social Equity Applicant and a direct pathway for vertical integration in SB 516, the likelihood of catastrophic failure for the HB 2 licensees is unacceptably high.

Thank you in advance for your consideration of this frank and sincere perspective. Element MD remains at your disposal and deeply grateful for the excellent work done on this complex piece of legislation.

Respectfully,

James "Ted" Bibart  
Director of Operations  
Element MD, LLC  
(614) 832-8452

# **Maryland's Rare Treasure\_ Maryland Commission on A**

Uploaded by: Janice Temple

Position: FWA

## Maryland's Rare Treasure: Maryland Commission on African American History and Culture by Janice Temple

I am Janice Temple, a grandmother of 6 and mother of 4. I am a Cannabis user who has utilized the plant off and on since age 15 years old. I am now a senior citizen who will be turning 65 years old this year. I have lived in France, Belgium, Venezuela, Argentina, Turkey and Mexico. My ex-husband was an international basketball player so I have smoked cannabis in those countries. He used the plant for rest and recovery for his two a day basketball practices. We met in Paris, France and traveled while raising our family for 7 years. I have visited about 30 countries. I have lived in Maryland and Washington DC for the past 6 years. I currently live in Silver Spring, Maryland in District 14. I am a transplant from Chicago (Southside) who received her B.A. from Loyola University Chicago in French Language & Culture, Home Economics : Fashion Merchandising and Business Administration. I am also a former flight attendant, travel writer and black history tour operator and social media influencer.

The [Maryland Commission on African American History and Culture](#) is committed to discovering, documenting, preserving, collecting, and promoting Maryland's African American heritage.

The Commission also provides technical assistance to institutions and groups with similar objectives. Through the

accomplishment of this mission, the MCAAHC seeks to educate Maryland citizens and visitors to our state about the significance of the African American experience in Maryland.

What does the Maryland Commission on African and History and Culture have to do with Cannabis Reform?

Everything. There can be no reform without the history of the African American people who built the industry.

The youth of today are violent because they are lost and have no hope. They can not see past next week or the summertime when they live large to die. They don't care about themselves or others because no cares about them. I experienced my only son who was raised in a 2 parent household join the gangs of the Southside of Chicago. We had many conversations about the youth and Chicago violence. They reason the young people live to wear Jordan's, designer clothes, drive nice cars at any cost. Through prayer and God's grace he has been redeemed His marijuana record expunged. He knows who he is now. He has a family and a career.

1

Youth are lost when they don't know their peoples. Martin Luther King III recently visited Maryland at Coppin State University and spoke on panel at [Equity, Representation, Opportunities for Cannabis Workers](#).



This is the reason that the Governor of Florida is banning Black History Books so that African American youth and adults in Florida remain lost in mental slavery.

The youth of Maryland need buses and chaperones to take them to the Harriet Tubman Underground Railroad Museum National Park as well as the Frederick Douglass Trail.

Social Equity Funds should be utilized to enlighten the youth of Maryland to end the violence. They need hope. Funds should be directed to the Maryland Commission on African American History and Culture to transport them to the Maryland Black History Sites.

2

Maryland should be the blueprint for every state to create a Commission on African American History and Culture. There should also be a National Commission on

African American History and Culture.

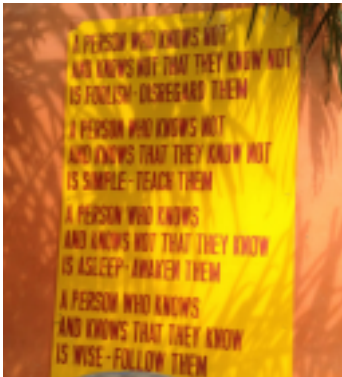
A PERSON WHO KNOWS NOT AND KNOWS NOT THAT  
THEY KNOW NOT IS FOOLISH-DISREGARD THEM

A PERSON WHO KNOWS NOT AND KNOWS THAT  
THEY KNOW NOT

IS SIMPLE-TEACH THEM

A PERSON WHO KNOWS AND KNOWS NOT THAT  
THEY KNOW IS ASLEEP-AWAKEN THEM

A PERSON WHO KNOWS AND KNOWS THAT THEY  
KNOW IS WISE-FOLLOW THEM



New Afrika Shrine Fela Kuti Afrobeats King Lagos, Nigeria  
Black History Month Feb. 19, 2013

Knowledge of self is the answer to the youth problem. 3

# **SB 516 Trulieve Testimony.pdf**

Uploaded by: Jarryd Hawkins

Position: FWA



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**Submitted to:**

Maryland Senate Finance Committee  
Annapolis, MD – March 9, 2023

Testimony from Trulieve  
Angela Zaydon, Government Relations Manager

Favorable with Amendments: Cannabis Reform (SB 516)

**Introduction**

Trulieve is an industry leading, vertically integrated cannabis company and multi-state operator in the United States, with established hubs in the Northeast, Southeast, and Southwest, anchored by leading market positions in Arizona, Florida, and Pennsylvania. Trulieve is poised for accelerated growth and expansion, building scale in retail and distribution in new and existing markets through its hub strategy. By providing innovative, high-quality products across its brand portfolio, Trulieve delivers optimal patient and customer experiences and increases access to cannabis, helping patients and customers to live without limits.

Trulieve currently serves the needs of Maryland patients with a cultivation and processing facility in Hancock, and dispensaries in Halethorpe, Lutherville, and Rockville.

Trulieve thanks Chair Feldman and Majority Whip Hayes for their time and effort in drafting this legislation and for taking a leadership role on this issue. Trulieve submits this statement in general support of Senate Bill 516 with amended changes.

**Proposed Changes**

1. License Divestment – Under Section 36-401(E) of the bill, the maximum number of dispensaries an owner can hold is reduced from 4 to 2. This should be amended to restore the current cap of four licenses. The current language would prompt companies that now hold more than two





dispensaries to have no choice but to litigate with the state under several theories of law. Litigation would most definitely halt the Adult Use market, reducing and delaying revenue for the State and delaying the intentions of all voting Marylanders. In addition, it significantly limits the ability of all licensees, both incumbents and new market entrants, including social equity entrants, to be competitive and successfully grow a business in years to come. Requiring divestiture of any business by the government is poor policy with lasting economic consequences. **For these reasons, the license caps should remain at 4.**

2. Ice Cream Truck Style Delivery – New Delivery License – This provision allows only new licensees to deliver products to consumers directly from the grower/processor without having any brick and mortar dispensary. There are several issues with this delivery style. First, it is a public safety issue; a delivery vehicle driving around with cash and cannabis, making frequent stops, leaving the vehicle unattended, is not what Marylanders want. It is not clear where these vehicles are allowed to sell the product. For example, are they allowed to drive through neighborhood streets, church and school parking lots, city streets and pull over when flagged down? Are they allowed to park on the side of the road like a food truck and sell out of the side window? And if a consumer or patient has a problem or question and would want to make a return – there is no building for them to go to. Do they flag down the next delivery driver? This model of delivery poses very real safety concerns as well as product tracking and consumer confidence concerns. **For these reasons, the ice cream truck delivery method should be amended and should instead allow for all licensed dispensaries to deliver product, directly and only to a registered patient or customer’s home address, in a secure vehicle.**
  
3. Canopy Caps – Section 36-401(C)(1) would cap the maximum annual production for any licensed grower to 300,000 square feet of indoor canopy. This amount of square footage will saturate and weaken the market and cause excess product to potentially be disposed of in the illicit



market, as many states ahead of us have experienced when an over-supply of product is diverted due to the inability to sell through this quantity in the regulated market. **For these reasons, the canopy caps should be amended to a maximum of 100,000 square feet to ensure a competitive and successful market for Maryland.**

# **SB516 Cannabis Reform Group Testimony.pdf**

Uploaded by: Jen Brock

Position: FWA



Christopher C. Jensen  
Co-Founder and CEO



James A. Leventis, Esq.  
Executive Vice President



Columbia Care  
Columbia Care, Inc.  
Kevin I. Goldberg  
Vice President



Rebecca Koar  
Senior Vice President, IR



John Sullivan  
Executive Vice President, Public Affairs



Jamie Ware, Esq.  
Senior Vice President - Legal,  
Regulatory & Government Affairs



Lauren Niehaus,  
Executive Director of Government  
Relations



Jeremy Unruh, Sr. Vice President  
Public & Regulatory Affairs



Matt Harrell, Vice President,  
Government Relations



Jake Thornton  
AGC & Head of Regulatory Affairs

SENATE BILL 516 – FAVORABLE WITH AMENDMENTS

Cannabis Reform

March 9th, 2023

We applaud the Maryland General Assembly's steadfast commitment to passing meaningful Cannabis reform legislation with the intention of providing a safe and balanced market for consumers and patients that empathizes fairness, accessibility, and social equity. We also specifically acknowledge the commitment and attention provided by the bill sponsors on this

legislation. We remain persistent in doing our part to establish and maintain safe and affordable products to consumers and patients in Maryland.

We are generally in support of the framework of House Bill 556, specifically its desire to emphasize social equity within the marketplace. We believe that a diverse marketplace is helpful to the industry overall. However, we do have suggestions we would like to offer for consideration to the Economic Matters Committee.

### **Concerns**

**LICENSE DIVESTMENT-** Under Section 36-401(E) of the bill, the maximum number of dispensaries an owner can hold is reduced from 4 to 2. This language will severely delay the rollout of Maryland's adult use program. This significantly limits the ability of all licensees (incumbents and new market entrants) to be commercially successful. It would also encourage current operators with more than two dispensaries to divest the dispensaries located in rural areas of the State that serve lower income patients. If the state is requiring at least 150 owners of the 300 dispensaries, it will be difficult for any companies with exceptional ownership and operations to rise to the top with best business practices. **This should be amended to restore the current cap of four licenses.**

**NEW MICRO-DISPENSARY LICENSE/ ICE CREAM TRUCK STYLE DELIVERY-** This would enable new specific licensees to deliver products to consumers, and restrict current operators who are already safely delivering cannabis from dispensaries to patients from continuing their delivery operations. This provision, if enacted, would be a big public safety issue. Michigan and California who have implemented similar provisions experienced significant increases in related crime, including robbery of cannabis delivery vehicles. In Michigan the issue is so pervasive the state's cannabis regulatory agency issued official warnings of increased crime perpetrated against cannabis delivery companies. This is not only a threat to personal and public safety, but also a threat to the viability of the broader adult use program. **This form of license should be removed from the bill, and current operators should be permitted to continue their COMAR regulated delivery operations.**

**CANOPY CAPS-** Section 36-401(C)(1) would cap the maximum annual production for any licensed grower to 300,000 square feet of indoor canopy or its equivalent. If a substantial number of growers produced anywhere near that volume of product, it would saturate the market, and cause excess product to find its way to the illicit market, as is now the case in California, Michigan and other states.

Massachusetts currently has a 100,000 cap for a combined medical/adult use market and it is already in an oversupply situation. **We propose to amend this provision to include a cap of no more than 100K square feet.** Massachusetts is currently struggling with an oversupply issue, driving down prices, and putting cultivators out of business; companies are operating at razor-thin margins, and many can't compete and are forced to shutter business or sell their licenses.

**PATIENT HOURS-** Section 36-410 requires dispensaries to “SET ASIDE OPERATING HOURS TO SERVE ONLY QUALIFYING PATIENTS AND CAREGIVERS.” The bill should include proven protections for medical patients such as express check in, or dedicated point of sale area. These provisions have worked exceptionally well in other states without requiring a dispensary to be opened additional or different hours with no patients utilizing those hours. **Operators shall be required to ensure patients have dedicated access to their medicine, via dedicated medical-only lines / express check in, instead of dedicated patient hours.**

**TRANSFER RESTRICTIONS** - Section 36-503(C)(1) states that “A cannabis licensee, including a cannabis licensee whose LICENSE WAS CONVERTED IN ACCORDANCE WITH § 36-401 OF THIS TITLE, MAY NOT TRANSFER OWNERSHIP OR CONTROL OF THE LICENSE FOR A PERIOD OF AT LEAST 5 YEARS FOLLOWING LICENSURE.” The five year restriction in this provision should be set back to three years, as measured from the initial license date, not the date of the converted license issue date. Asking incumbent licensees to wait an initial term of three years under HB2, plus another five years under the current bill is an undue restraint of trade. In addition, this increases the pool of interested investors to a wider set of market participants. **When the current medical licenses are converted to adult use, the five year clock should not reset.**

**EXEMPTIONS FOR PENDING TRANSFER REQUESTS** – There are several pending transfer requests (including those from Ascend) that may not receive approval from the MMCC at the March meeting, which may be the last MMCC meeting. It is not fair that the transfer requests may be subjected to rule restrictions and procedures from a different agency. **For any pending approvals submitted to the MMCC before March but reviewed by the ATC after the bill passes, the ATC should review the request pursuant to the rules and procedures in effect before the bill’s passage. See proposed change on Page 33.**

**CONVERSION FEES-** The Conversion Fees are set forth in Section 36-403 of the bill. These fees are not reflective of the current nationwide macroeconomic situation for the cannabis industry across the country, nor the current financial reality for most cannabis companies in Maryland. **The State of Maryland is leaving money on the table from larger operators. The Conversion Fees should be lowered and made progressive.** (Example 2.5% of the first \$10 million of revenue, 5% of the next \$10 million, 7.5% of the next \$10 million, 10% of the next \$10 million, 12.5% of the next \$10 million, 15% of the next \$10 million, ect.) Alternatively, Conversion Fees should be set to equal a flat 5% of 2022 gross revenue.

**SB 516\_Cannabis Reform\_FWA.pdf**

Uploaded by: Jennifer LaHatte

Position: FWA



Wes Moore | Governor  
Aruna Miller | Lt. Governor  
Kevin A. Anderson | Secretary of Commerce  
Signe Pringle | Deputy Secretary of Commerce

**DATE:** March 9, 2023  
**COMMITTEE:** Finance  
**BILL NO:** Senate Bill 516  
**BILL TITLE:** Cannabis Reform  
**POSITION:** Support with Amendment

The Maryland Department of Commerce (Commerce) supports Senate Bill 516 – Cannabis Reform with amendment.

### **Background**

Senate Bill 516 establishes the regulatory and legal framework for the legalization of cannabis for adult recreational use in Maryland. In addition, it alters the existing Cannabis Business Assistance Fund (Fund) within Commerce, and establishes a Capital Access Program within Commerce.

The legislation establishes the Office of Social Equity (OSE) within the Alcohol, Tobacco, and Cannabis Commission to assist with the creation of the recreational cannabis industry and ensure that people from communities that have been previously disproportionately harmed by the war on drugs are encouraged to participate in the adult-use cannabis market. OSE serves many other valuable functions including:

- Identifying and opposing regulations that unnecessarily burden and undermine the OSE’s intent;
- Providing free technical assistance for social equity and minority applicants; and
- Consulting and assisting with various cannabis-related funds, including the Cannabis Business Assistance Fund administered by Commerce.

### **Rationale:**

Commerce welcomes the assistance of the Office of Social Equity and is supportive of their mission. Determining the specific individuals and entities that should be awarded loans or grants under Commerce’s Cannabis Business Assistance Fund may prove to be outside of the scope of OSE’s staffing and expertise. While OSE can identify the Social Equity qualifications of an individual or business, Commerce has valuable experience in managing loan and grant programs and has the knowledge, skills and personnel to oversee the financial components as well as the administration of this multimillion dollar Fund.

### **Explanation of Amendments:**

The attached amendments proposed by Commerce would reduce the involvement of the Office of Social Equity with Commerce’s Cannabis Business Assistance Fund. The amendment strikes language in 1-309.1(9) in its entirety for the reasons mentioned above.

The second amendment alters the reporting requirements for OSE in 1-309.1(F). OSE should not bear the burden of reporting on a Fund that will be administered by Commerce. Both agencies will benefit by not having to transfer fund data and coordinate reporting to the legislature.



Commerce feels these amendments will benefit the Fund as well as the Department and OSE. The amendments will retain the input of OSE while allowing Commerce the flexibility to administer its program.

The Department of Commerce respectfully requests a favorable report with amendments on Senate Bill 516.

AMENDMENTS TO HOUSE BILL 622  
(First Reading File Bill)

**AMENDMENT NO.1**

On page 10, strike lines 3 through 5

**AMENDMENT NO. 2**

On page 10, strike from “**AND**” in line 9 through “**WERE**” in line 10 and insert “**WAS**”

**AMENDMENT NO. 3**

On page 10, strike lines 15 through 16.

# **Oral testimony.pdf**

Uploaded by: Jody Rosoff

Position: FWA

# SB516

## Favorable With Amendments

I have a business that has been in Baltimore city for 44 years now. Its woman owned and I employ 2 part time employees that depend on their job for income. They both have medical issues that prevent them from working just anywhere. I am 62 years old, and this bill as written will put me out of business. I have been paying sales tax, property tax and employed staff for 44 years now. If you add that up that's 44 years of contributions to the City of Baltimore and State of Maryland. My family and I have been a part of this community volunteering and serving the community for decades.

- I believe it is bad policy to criminalize a federally legal industry while legalizing a federally illegal industry. If this bill is passed as written it will make my hemp products illegal. The same products that are federally legal.
- The products that help my customer with cluster seizures.
- The products that help my customer who just had a double mastectomy. Her husband states "it's the only thing that has helped her so far"
- The products that help with anxiety, ptsd, sleep, inflammations, seizures and overall health benefits.
- This bill as written appears to favor Big Cannabis. It appears that they want all the hemp stores out of business. I believe there are over 2000 cbd related businesses in the State of Maryland and this will put them all out!
- I do believe there could be more regulations to protect the public.
- Banning or regulating the level of THC that is so low that it won't be effective for relief is not the answer. These businesses are

here because of the need. Most of the business owners are responsible and care deeply about their customers.

- One option could be a LICENSE and TRAININGS for HEMP business. I personally have had hours upon hours of trainings thru Patients Out of Time, Dr Dustin Sulak, Bud tenders training, and other cannabis/hemp related training. All of my products come from REPUTABLE companies that have reliable 3<sup>rd</sup> party testing for each product they carry and distribute.
- This industry deserves to be here and is needed. Not everyone wants to be stoned. Not everyone wants high THC levels. Hemp products give the relief needed without the high that cannabis products can give. Hemp products tend to also not give the paranoia that Cannabis products will. Personally, I do not like cannabis products for that reason. Many of my customers feel the same as I. I use Hemp every night for sleep. My 87-year-old mother uses full spectrum CBD for her inflammations and sleep. All 3 of my dogs use full spectrum cbd for their individual issues.
- This bill, as written, will take away access for many people and animals
- It will destroy thousands of hard-working Maryland Constituents by taking away their livelihood.
- Please amend this bill to protect the hard working, responsible people, their employees and customers.

Sincerely,

Jody Rosoff

1205 Engleberth rd

Baltimore, Md 21221

410-493-1536

**SB516\_FWA\_CANMD.pdf**

Uploaded by: Joe Bryce

Position: FWA



March 9, 2023

The Honorable Melony G. Griffith  
Chair, Senate Finance Committee  
3 East, Miller Senate Office Building  
Annapolis, MD 21401

**RE: Support with Amendments for Senate Bill 516 – Cannabis Reform**

Dear Chair Griffith:

The Maryland Wholesale Medical Cannabis Trade Association (CANMD) supports Senate Bill 516 – Cannabis Reform, with amendments. CANMD thanks the sponsors of this bill for putting a tremendous amount of work into this important issue.

CANMD represents the majority of companies licensed to grow and/or process medical cannabis in Maryland. CANMD members have worked closely with Maryland policymakers and regulators to make our medical program a safe and well-regulated one.

Marylanders in every jurisdiction except one voted in favor of the Constitutional Amendment created by the passage of House Bill 1 of the 2022 Session. Passage of the Amendment means that Maryland’s possession laws change on July 1. Marylanders also anticipate that they will be able to legally purchase cannabis and cannabis products on that date. Senate Bill 516 establishes the regulatory framework for meeting that expectation.

Importantly, Senate Bill 516 maintains focus on issues of equity and participation, building on many important social and criminal justice reforms passed last year by the General Assembly. The bill provides licensing opportunities for social equity applicants and sets policies to enhance the ability of new licensees (and entities licensed as a result of House Bill 2 of 2018 (“House Bill 2 licensees”)) to compete and thrive in the new market.

Combatting the illicit market. Commencing sales on July 1 not only meets the expectations of Marylanders, it also addresses an issue that many States have failed to address – setting policy to cut into the illicit market and allow people to purchase legal, safe and affordable products. There is an illicit market in Maryland and across the country. Once the possession limits are raised on July 1 and the public believes product is available for purchase, a regulated market needs to be available to reduce illicit sales of untested and unsafe products.

Several policy measures in Senate Bill 516 help in the effort to curb illicit sales. During the interim discussions on this issue, consultants opined that the most important factors in mitigating the impact of the illicit market are time, access, and cost. As mentioned above, the timing of starting sales on July 1, 2023 is vital. From an access perspective, utilizing existing operators and geographically dispersing new dispensary licenses across the State provides instant and, eventually, expanded points of access. Finally, Senate Bill 516 sets a reasonable tax rate that is phased-in to allow the adult-use market to take hold at competitive prices, and increases the tax rate as the program matures, more licenses come online, and the price of the product declines.

Senate Bill 516 also creates a regulatory environment that will enable the State to meet the tight timelines the bill lays out. It envisions a smooth transition of the employees of the Medical Cannabis Commission to the new Cannabis Regulation and Enforcement Division in the Alcohol, Tobacco, and Cannabis Commission. The Division is also required to issue emergency regulations prior to July 1 based on the medical cannabis regulations. This ensures that all current provisions on seed-to-sale tracking, testing, packaging, labelling, security, and other important regulatory matters will continue uninterrupted.

Intoxicating hemp products. The bill also addresses an emerging issue that threatens to undercut the State’s efforts to create a tightly regulated cannabis market – the sale of intoxicating hemp-derived products. Due to a loophole in the federal Farm Bill, some have devised a way to chemically convert cannabinoids, including CBD, from hemp plants containing the required low level of THC-9 into products containing intoxicating levels of delta-9 THC and isomers of THC including “delta-8” and “delta-10”. These products are currently sold in storefronts, gas stations, convenience stores and other retail



outlets, often without age restrictions and with signage advertising the availability of THC products and products like those (and, in many cases, more potent than) only approved for medical use in Maryland.

This is not about impacting hemp farmers or denying individuals the ability to sell products contemplated by the General Assembly as it created a Hemp Pilot Program. Nothing in Senate Bill 516 restricts the production or sale of all the products that are available – CBD, hemp seeds, food products containing hemp, fibers, clothing, car door insulation, or any of the dozens of other products that hemp advocates held out as examples of the need for hemp production.

A review of the legislative history of hemp issues reveals a simple and constant theme – hemp is not cannabis, and it does not contain enough THC to cause intoxicating effects. Great care was taken each year to differentiate hemp from cannabis, with a focus on a variety of hemp-derived consumer and industrial goods. At no time did advocates say “we want to grow a plant that can be chemically altered to produce consumer products that produce a psychoactive effect similar to cannabis.” The General Assembly never intended for hemp-derived products that “get people high” to be sold in Maryland. This bill clarifies that if a product is consumable and has intoxicating effects, it must be produced and sold through this new regulatory structure and the licensees created by Senate Bill 516, regardless of whether it is from a cannabis plant or a hemp plant that has been chemically altered to produce intoxicants.

Social Equity provisions. CANMD supports the many aspects of Senate Bill 516 that are designed to further diversify the Maryland cannabis industry and ensure the success of these new businesses. While licensing is important, it is not the only avenue to address social equity. Most notably, the bill places a temporary cap on the production capacity that July 1 entrants can utilize. CANMD supports measures to ensure that House Bill 2 licensees and new licensees can fairly compete in the new market, though member companies have slightly different perspectives on how to meet that goal. CANMD believes that it is reasonable to reserve market space for social equity and House Bill 2 licensees given the need to begin sales in July, and we are committed to supporting the success of these businesses.

Last year the General Assembly created the Cannabis Business Assistance Fund to aid new entrants in accessing capital, and Governor Moore released

\$40 million in Fiscal Year 2023 money to provide resources. Senate Bill 516 creates a Capital Access Program to further support new licensees. Existing operators have experience in applying for a license and running a business and CANMD members welcome opportunities to share that experience with new licensees. New licensees will also benefit from the assistance of the new Office of Social Equity. These provisions of the bill should be clarified to allow House Bill 2 licensees to access these programs and opportunities.

Several provisions of the bill are designed to aid licensees and impacted communities. Every new licensee must submit a detailed diversity plan and converted licensees are expected to reserve a specified amount of cannabis for social equity licensees. Uncodified language states intent that to the extent permissible under law, cannabis licensees should comply with the State's Minority Business Enterprise Program. Finally, as noted above, the Community Reinvestment and Repair Fund will redirect a portion of cannabis tax proceeds to disproportionately impacted areas.

Maintaining a medical market for patients. Senate Bill 516 recognizes that it is important to protect patient access to the medical program. It contemplates allowing certain products for use only by patients and requires dispensaries to take measures to ensure product and access for patients.

Tax provisions. CANMD supports the structure of the taxation of adult use products in Senate Bill 516. Importantly, medical cannabis remains exempt from taxation. The tax on adult use products is levied at the point of sale to the consumer, allowing for simpler inventory management approaches. As noted above, the phased-in tax allows Maryland to make progress on combatting the illicit market while yielding significant tax revenue.

High conversion fees. CANMD applauds the sponsors for a well-crafted bill that covers many topics, but we do have concerns about some of the provisions. CANMD members have always agreed that licensees should expect to pay a significant fee to convert a medical license into a license that also allows adult use sales. Last Session, we agreed with the policy decision that any fee should be paid into the Community Reinvestment and Repair Fund and be returned to communities impacted by unevenly enforced laws on cannabis.

The fee in Senate Bill 516 ranges from 13-50% of a licensee’s prior year revenue if the company is at the low end of a bracket in Section 36-403 (pages 41-42), to at least 10%. As the General Assembly recognized last year, federal tax law does not allow cannabis companies to deduct from their income routine costs of doing business that all other companies are allowed to deduct. House Bill 837 of 2022 addressed the “280E issue” for Maryland taxes, but the problem remains at the federal level. Despite perception, these are not businesses that maintain large cash balances. Setting too high a fee will require many companies to borrow funds (if a bank will provide a loan to them) to pay this fee. As proposed, the fee structure appears unbalanced, and a more equitable fee structure should be considered. Additionally, considerations for payment over time should be permitted. (House Bill 556, the cross-file to Senate Bill 516, has been amended in the House to allow for an 18-month payment period.)

Similarly, Senate Bill 516 is too vague on other fees, including license renewal fees and “registration and other fees.” Section 36-205 authorizes the Division to impose “registration and other fees” to administer the program. There is no apparent limit to what those fees could be. Finally, the renewal fee, paid every 5 years, is subject to the discretion of the Division, with the only limit being a cap of “10% of the cannabis licensee’s annual gross revenue.”

Transfer prohibition is too restrictive. Section 36-503 (pages 56-57) prevents transfer of ownership or control for 5 years following licensure. This applies to medical licensees that convert; however, these licensees have already been subject to a 3-year restriction under current law. If this provision is retained for converted licensees, it may need to be clarified to allow companies to raise equity, short of a transfer of ownership or control and the restrictive period should be shorter. Finally, while this provision exempts a transfer as a result of death of an owner, the Division should also be given the authority to establish regulations regarding disability, estate planning and intra-family transfers. (House Bill 556 has been amended in the House to accommodate these events.)

License numbers should be based on market demand. Senate Bill 516 creates a 2-round licensing timeline. While the Division has discretion to issue “not more than” a certain number of licenses, there is no requirement that there be a demonstrated need for more production. Section 36-404(g) requires that future (post Round 2) licenses be issued “as needed in

accordance with a market demand study,” but the first 2 Rounds are conducted without that analysis. The two processes are conducted within 4 months of one another, not allowing for any time to determine whether demand is adequately met through the first round, as those Round 1 licensees will yet to be established and operational.

CANMD appreciates the opportunity to comment on Senate Bill 516 and would like to work with the Committee and the legislature to develop a regulatory structure that benefits all Marylanders, and provides a safe, well-regulated product for patients and consumers.

Jake Van Wingerden  
President, CANMD

Joy Strand  
Executive Director, CANMD

# **Fiddlers Green Farm website.pdf**

Uploaded by: John Batten

Position: FWA

Fiddlers Green Website

[WWW.fiddlersgreen.io](http://WWW.fiddlersgreen.io)

# **Fiddlers Green Farm website.pdf**

Uploaded by: John Batten

Position: FWA

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# Testimony - SB 516.pdf

Uploaded by: John Batten

Position: FWA

## Maryland Senate Finance Committee

RE: Senate Bill #516, Testimony 3/9/23

Good afternoon committee members. My name is **Chris Batten**. I would like to thank the committee for considering my testimony on SB516.

My request, on behalf of 5 generations of my family, is simple: Please do not pass legislation that could DESTROY our family farm. SB516 as written could very well do that by changing the rules upon which we have invested heavily over the past 4 years. To be clear, we do not oppose the entire bill and in fact do support the measures that would restrict the sales of CBD delta 8.

I am manager of this 100-acre farm near Taneytown which my family has owned and farmed for more than 75 years. When the United States Congress passed the farm bill in 2018 and made hemp LEGAL, my family like many others in the farming community saw an opportunity to earn badly needed income by producing LEGAL, ORGANIC, CBD products. We invested enormously—borrowing and taking from our retirement funds for expensive equipment, structures, supplies, labor and marketing.

Our business has survived and is growing due to the fact that we grow, process, market and sell our products direct at Farm Markets and on line. We have many regular customers who benefit from CBD for pain relief, improved sleep and reduced anxiety for themselves and/or pets. Several customers have commented that they prefer CBD to THC because they do not like the psychotropic effect of THC. **We do not sell Delta (8) versions of hemp and have no intention to do so.**

Our farm is organically certified by the Maryland Department of Agriculture and we are committed to providing healthy natural products. For the past four years we have purchased permits from MDA and conformed to all regulations including federal limits on THC.

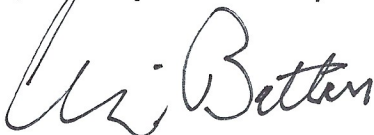
The legislation as proposed (Senate Bill 516, Section 36-1103(A)) would impose burdens and expenses that will make it IMPOSSIBLE for us to stay in business. The limit on THC as specified in this law goes way beyond the federal limit **upon which we built our business**. This law would make nearly all of our products **ILLEGAL**, thereby virtually destroying our family business. The large product inventory we have built over 4 years, and all the significant investments in the structures and equipment, and marketing—not to mention the sweat equity from us aging farmers--would be flushed down the toilet.

However....An amendment as proposed by Barry Prichard of Sun X Analytical seems like a reasonable way to satisfy the intent of the legislation without destroying businesses like ours.

I am no lawyer, but I think I understand what Ex Post Facto means. The US Constitution prohibits Ex Post Facto laws. If this law is passed as currently written, it will make much of what we have already produced **LEGALLY**, in accordance with present Maryland laws, suddenly become **ILLEGAL**—potentially making my family criminals under the new law.

Please remove section 36-1103(A) from Senate bill 516 or change the language in the section from 0.5 milligrams of Tetrahydrocannabinol per serving to 3 milligrams and 2.5 milligrams of Tetrahydrocannabinol per package to 90 milligrams. Let my family go on farming **LEGALLY**, to continue bringing clean Maryland farm products and food to Americans for another 5 generations.

**Respectfully submitted,**

A handwritten signature in black ink that reads "Chris Batten". The signature is written in a cursive, flowing style.

**Chris Batten, Partner**

**Fiddlers Green Farm LLC**

# Testimony - SB 516.pdf

Uploaded by: John Batten

Position: FWA

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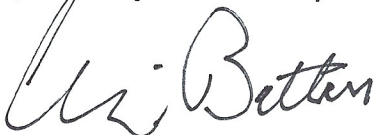
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**Chris Batten, Partner**

**Fiddlers Green Farm LLC**

# **VS Strategies testimony on intoxicating hemp provi**

Uploaded by: Jordan Wellington

Position: FWA

Thank you for the opportunity to comment on SB 516. We strongly support passing this bill and commend the legislature for their thoughtful and deliberate process thus far. We are concerned that Section 36-1103 fails to sufficiently address the significant public health issues associated with intoxicating hemp products and recommend amendments to that section designed to better protect public health and safety.

There have been many public health warnings about the dangers associated with intoxicating hemp products, and keeping unsafe products off the market is a vital public policy goal to this bill. We appreciate the efforts to curtail the most egregious abuses in SB 516 but the policy does not go far enough. By authorizing intoxicating hemp products for legal sale, the bill legitimizes and permits potentially unsafe products to be sold without sufficient product safety regulations and in conflict with multiple federal agencies' guidance on the matter.

### **Origins of the problem**

The issue began with the federal 2018 Farm Bill, which legalized cannabis that tests below 0.3% Delta-9 THC dry-weight by volume (aka hemp). This unintentionally opened a Pandora's Box of issues due to misunderstandings or willful misreadings of the Farm Bill's intent and other federal product safety laws. The language currently in Maryland's adult-use implementation bill is a good step forward for public safety but would also endorse many unsafe products that should not be on the market.

### **Unsafe products in conflict with federal food and dietary supplement rules**

The 2018 Farm Bill preserved Food and Drug Administration (FDA) authority to regulate food and dietary supplements containing ingredients derived from hemp. While the FDA has not adopted specific regulations governing hemp-derived ingredients, the department has taken enforcement actions against companies that have made [egregious health and safety claims](#)<sup>1</sup> and called attention to [multiple deaths](#)<sup>2</sup> attributed to synthetic cannabinoid products in 2018. Additionally, intoxicating hemp products do not comply with many applicable laws that govern all consumable products, including foundational elements of our nation's product safety laws such as the Food, Drug, and Cosmetics Act (FDCA) and Current Good Manufacturing Practices (CGMP). This means that intoxicating hemp products contain unapproved ingredients that do not meet basic product safety standards, and their production is also not compliant with safety standards.

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<sup>1</sup> <https://www.fda.gov/news-events/press-announcements/fda-issues-warning-letters-companies-illegally-selling-cbd-and-delta-8-thc-products>

<sup>2</sup> <https://www.fda.gov/news-events/press-announcements/statement-fda-warning-about-significant-health-risks-contaminated-illegal-synthetic-cannabinoid>



## Federal statements and actions on the issue

Numerous federal agencies have recently come out against these dangerous products:

- **The FDA** has published a [health advisory bulletin](#)<sup>3</sup> regarding Delta-8.
- **The Drug Enforcement Administration (DEA)** published a [statement](#)<sup>4</sup> confirming that synthetic cannabinoids, such as THC-O acetate, are controlled substances regardless of whether they are derived from hemp.
- **The Substance Abuse and Mental Health Services Administration (SAMHSA)** published an [advisory](#)<sup>5</sup> about the public safety dangers of unregulated CBD products, stating that the lack of regulation leads to unpredictable cannabinoid levels and the risk of dangerous contaminants, even stating that products in state-regulated dispensaries have greater oversight and standardization.
- **The Centers for Disease Control and Prevention** released a [health advisory bulletin](#)<sup>6</sup> due to the proliferation of reported health incidents involving products with Delta-8.

## The language in SB 516 takes a step forward but is not sufficient to protect public health and safety

As drafted, Section 36-1103 would restrict many intoxicating hemp products to sale through the adult-use market and subject them to cannabis product safety standards. While this would be a step in the right direction, state-based cannabis product safety standards are not designed to address the public health issues created by novel and synthetic cannabinoids and unproven manufacturing processes. The bill should be amended to strengthen efforts to protect public health and safety by:

- Prohibiting the production and sale of novel and synthetic cannabinoids until they are approved by the FDA, or until Maryland creates and funds a regulatory framework from hemp products that is capable of licensing and regulating the processing, sale, and distribution of hemp derived cannabinoids, including the ability to assess novel and synthetic cannabinoids' safety profile, their potential for intoxication, and manufacturing methods to ensure hemp products are safe and non-intoxicating.
- Expanding the definition of “tetrahydrocannabinol” to include the total of all THC isomers and related psychoactive cannabinoids to avoid the same mistake made by the 2018 Farm Bill, and ensure products containing low levels of Delta-9 THC and high levels of other unapproved psychoactive cannabinoids are included within regulation.
- Removing the authorization for cannabis stores to sell intoxicating hemp products produced outside of Maryland's regulated cannabis industry and requiring the production of intoxicating cannabis products to be conducted by the licensees created by this bill.

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<sup>3</sup> <https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc>

<sup>4</sup> <https://s3.documentcloud.org/documents/23608864/dea-thco-response-to-kight.pdf>

<sup>5</sup> <https://store.samhsa.gov/sites/default/files/pep22-06-04-003.pdf>

<sup>6</sup> [https://emergency.cdc.gov/han/2021/pdf/CDC\\_HAN\\_451.pdf](https://emergency.cdc.gov/han/2021/pdf/CDC_HAN_451.pdf)

# **ClemontsJ Cannabis Testimony.pdf**

Uploaded by: Joseph Clemonts Jr

Position: FWA

## **Greenroom Guardians' Senate Bill 516 Written Testimony**

Maryland is very excited to bring adult-use recreational cannabis to its citizens. We are making history by doing something that we have never done before and have very little experience in. As such, there are some obvious missteps that we need to correct going forward in order to make the Maryland adult-use cannabis program as fair, equitable, and successful as possible. The current bill has unnecessarily linked law enforcement to key programs and positions. It also woefully does not allow enough of those with the cannabis information and know-how that we need to make a successful program to participate in key programs and positions. Less than half of American states allow recreational use cannabis (ProCon.org, 2022). We have the opportunity to be a national blueprint for the states that follow.

Senate Bill 516, as written, has unnecessary law enforcement participation in key positions and crucial program areas. Even worse, the positions that are reserved for individuals with a policing background have little oversight or transparency and the most vulnerable in the public, namely minorities, have very few safeguards or protections. The Alcohol, Tobacco, and Cannabis Commission consists of seven members where, "one shall be knowledgeable and experienced in law enforcement matters." (Hayes & Feldman, 2023, p. 5) The Executive Director that commission, "shall be a sworn police officer with the powers granted to an officer or employee of the Field Enforcement Division." (Hayes & Feldman, 2023, p. 8). Building law enforcement officers into the key positions and critical areas of the recreational cannabis industry is a terrible idea akin to having wolves guard sheep.

The police, as an organization, have a terrible track record of unequally enforcing laws on minorities. In fact, numerous academic studies have confirmed that police routinely target minorities. Even in post-legalization states, "Black and Hispanic drivers were still more likely to be searched [at a traffic stop] than white drivers." (National Conference of State Legislatures, 24 May 22) Minorities also rarely get the same shot at justice as Whites once they have had a run in with the police. "Black and Latino offenders sentenced in state and federal courts face significantly greater odds of incarceration than similarly situated white offenders and receive longer sentences than their white counterparts in some jurisdictions." (American Civil Liberties Union Federation, 2014). It's also well known that minorities, Blacks in particular, can expect to face harsher sentences for law violations than whites. Says the U.S. Sentencing Commission, "Black men statistically received harsher prison sentences than white men who commit the same crimes." (Larche, 2022)

A major goal of this bill is to provide inclusion into the adult-use cannabis program for those who have been excluded from the medical use cannabis program, particularly women and minorities. By having The Executive Direction be a member of the police force, the state is almost guaranteeing that neither a woman or a minority has a fair shot of occupying this position. Baltimore county's police force is over 80% white (Wood, 2019). Ann Arundale county, which includes the state capital of Annapolis, has a police force that was 82% white just a couple years ago (Wood, 2019). The vast majority of police forces in the state have white and male majorities which means that neither a woman or a minority has

a fair shot of being selected to be the Executive Director, a position which holds tremendous power, especially when it comes to enforcement of adult-use recreational cannabis use.

The police are people and people have biases. As an organization, the police have shown time and again that their biases cause them to disproportionately target minorities. Placing a member of the police in one of the most prominent positions when it comes to enforcement of adult-use cannabis means that these harmful biases will become a part of The Commission and the Cannabis Regulation and Enforcement Division that serves it. By setting up the police to have one of the most influential and critical positions in regulating and enforcing Maryland's adult-use recreational cannabis, and the harmful biases towards minorities they bring with them, the State is setting up an enforcement system where the wolves guard the sheep.

The solution is simple, easy, and obvious: the best way forward for women and minorities to enjoy and be represented in the Maryland adult-use cannabis program is for the state to remove the requirement to have a law enforcement background to participate in the Alcohol, Tobacco, and Cannabis Commission, to be selected as the Executive Director, and to participate in the Cannabis Regulation and Enforcement Division. Reading through the 88-page bill, it becomes apparent that no position's responsibilities actually require a member with a law enforcement background. The Alcohol, Tobacco, and Cannabis Commission is being created to conduct studies and develop best practices for the Maryland adult-use cannabis market. There is no advantage that someone with a policing background brings to this task. The Cannabis Regulation and Enforcement Division is created to develop a seed-to-sale tracking methodology and issue and award licenses. There is no advantage that someone with a policing background brings to this task. Having a law enforcement background is neither necessary or advantageous to serving in these positions or any other position created by this bill. For the best possible outcome, the state needs to leave law enforcement to the law enforcement officers and leave policy-making and governance to the people. Otherwise, we will have wolves guarding sheep.

Although the recommendation is to eliminate the requirement that any position created for this bill be exclusive to someone with a law enforcement background, it is not to say that the police or those with a law enforcement background should not participate in the Maryland cannabis program. Their skills and knowledge of law enforcement may be valuable as consultants or advisors, not as the holders of key positions. Key positions and groups should be headed by those with experience in the adult-use recreational cannabis program. Industry experts are woefully underrepresented in this version of the bill. The Alcohol, Tobacco, and Cannabis Commission will consist of 7 positions but only 2 of those are reserved for those with any experience in the cannabis market. Maryland is attempting to do something that it has not done before. Its key positions need to be filled by those who have been where we are trying to go.

The Alcohol, Tobacco, and Cannabis Commission and its Executive Director are arguably the most powerful of those being created by this bill and there is no reason that someone with a policing background should be mandated to hold the position. If the state does not wish to remove this

mandate, there should at least be a system of checks and balances on the position. A good example is that the bill provides a lot of language making it clear that Certifying Providers have to be in good standing (Hayes & Feldman, 2023, p. 20). There is no language requiring that The Director or the members of the Cannabis Regulation and Enforcement Division, all of whom must be law enforcement officers, must be in good standing although there should be. When a law enforcement officer ends up in the news, Maryland citizens are told that he or she was just "a bad apple." It is common knowledge, however, that a couple bad apples can spoil the whole bunch and there is no language in the bill to prevent these bad apples from serving in positions that will have great power and require great responsibility and integrity. "Bad apples" are frequently reassigned or fired from one precinct only to get a job in the next county over. As a way to restore trust to the public, this bill needs language explicitly linking a police officer's negative conduct with the inability to serve as The Director or as a member of The Cannabis Regulation and Enforcement Division. Maryland does not need wolves guarding the sheep.

Maryland is very excited to bring adult-use recreational cannabis to its citizens. We cannot let our zeal overtake common sense or the responsibility we have to do what's right by all of our citizens. There is no reason for any position or organization created in this bill to be held exclusively by someone with a policing background given the propensity the police have for unfairly targeting minorities. For this bill and for Maryland adult-use recreational cannabis to work for everyone, The Executive Director and the members of the Cannabis Regulation and Enforcement Division need to be filled by the most qualified person, regardless of whether he or she has a policing background. Individuals with a policing background can be advisors or consultants but no position should be given to someone exclusively because of their policing background. If the state does go forward with mandating that The Executive Director or members of the Cannabis Regulation and Enforcement Division be made of those exclusively with policing backgrounds, then the state needs to ensure that these individuals are not the bad apples that will spoil our bunch; there is no place for bad police officers in Maryland. We need to make sure that our 1st attempt at creating a fair adult-use recreational cannabis program works for all Marylanders. We do not need a system where the wolves guard the sheep.

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## **Written testimony 516.pdf**

Uploaded by: Justin Nussbaum

Position: FWA

My name is Justin Nussbaum. I majored in mathematics at Hood College in Frederick Maryland where I received my undergraduate degree. I am the Chief of Extraction and Formulation at Fingerboard Farm. The Farm is an agritourism farm- stay, located in Frederick County. It is a woman owned vertically integrated cultivation, extraction/formulation and farm market sales business. Our CBD and Hemp Flower products are sold in six Maryland Medical Marijuana Dispensaries. I assist with many of the operations at the farm. I am primarily responsible for for the extraction/formulation side of things. If it was made at the farm, it was most likely made by me. We have our products third party tested for compliance and safety. I am writing because I am deeply concerned about the proposed language in the Cannabis Reform Act, HB0556. I am specifically concerned about the cap on THC at 0.5mg per serving and 2.5mg per package for those without a recreational cannabis license. ( § 36-1103 (A)(1); Page 69, lines 23-27).

This language is not only misleading but it would render hundreds of products that are currently protected under federal law illegal. As written, this bill would have a devastating impact on the hemp industry in Maryland and would result in the closure of hundreds of family-owned, small, and minority owned businesses like the one I work at. It would destroy an industry overnight without any input from industry participants. The Hemp Industry in Maryland has worked hard to create common sense regulations for these types of products in accordance with the recommendations from the Maryland Medical Cannabis Commission's study group that was formed last year to study these products specifically. We stand ready to support amendments that would protect public safety as well as the industry's ability to participate in the free market. We want regulation, but we do not want to lose our businesses which are protected by federal law due to the implementation of the recreational cannabis industry. A collaborative effort between the hemp and cannabis industry can and should exist as that is what is best for our industry as well as what is best for the consumers of these products.

When we finish growing for the season, as we grow outdoors and only have a single season, we have officials come out and take samples for testing to make sure we have complied and did indeed grow hemp, having a THC level below 0.3%, and not high THC flower before we harvest. Some of the crop is taken and frozen in order to preserve some of the other chemicals produced by the plant. Namely terpenes, where much of the smell and flavors come from. The rest is dried and cured. That's when my processing really begins. My primary method for separating the cannabinoids from the plant material is through ice water extraction. I utilize really cold water, and not other solvents typically used such as alcohol or butane, to pull the nearly microscopic trichome heads, where all the cannabinoids reside, away from the stalks. Everything goes through a series of different sized sieves and collected and dried using pharmaceutical freeze driers in a process known as Lyophilization. This concentrate is then used for formulation after a sample is sent off for testing, so that I have quantifiable numbers to make calculations with. Once I have the COA, or certificate of analysis, from the third party lab I can calculate out how much of the concentrate I need to use in formulation to get to the desired dosages, while still remaining below the federal



allowable THC limits. I have also formulated with other CBD concentrates extracted by other processors who utilized different methods of extraction, such as ethanol or hydrocarbons (butane and propane). A sample of the concentrate is sent off for third party testing and I read the COA and make calculations on how much is needed to make products with desired dosages and keeping THC levels below the federal limits. Under the strictest guidelines of 0.3% total THC by dry weight, this is calculated by adding the DELTA-9-TETRAHYDROCANNABINOL and the TETRAHYDROCANNABINOLIC—ACID by a decarboxylation multiplier of 87.7%. Heat converts 87.7% THCA into THC. With the 2.5 mg per package clause, federally legal hemp flower with 0% THC and a 0.3% THCA would be :  $(0.3 \times 0.877 = 0.2631\%)$  which translates to 2.63 mg of THC per gram of flower. Above the proposed ammendment of 2.5 mg per package.

Formulation will be impossible without using isolate and eliminating other beneficial minor cannabinoids. Think of it like making lemonade, but you can't use lemons or lemon juice, you can only use citric acid.

I believe that the regulations ammendment should remove this new clause and ban the formulation of any cannabis sativa product using acetate as the catalyst and solvent.

Justin Nussbaum

Chief of Extraction and Formulation

Fingerboard Farm

[Justin@Fingerboardfarm.market](mailto:Justin@Fingerboardfarm.market)

240-498-9545

# **Bill\_Testimony.pdf**

Uploaded by: Kalpesh Shah

Position: FWA

Senator Feldman, other members of the committee. Thank you for allowing me to testify on SB516. I support this bill with amendments.

I am a dispensary owner/operator in Greenbelt, Maryland that opened in April 2020 during the height of the pandemic. We are a majority minority-owned company and have faced numerous challenges to get us opened and operational.

Although we are excited for adult-use cannabis, we are concerned about a few things that will continue to provide us challenges to run and grow our business. Here are a couple of issues:

### 1) Conversation Fees

Most of the dispensaries including us gross between 1-5M/year, so the conversion fee will be \$250k. With almost 60% COGS, 15% labor, operating expenses, and hefty 280e taxes, dispensaries do not make much profit. Expecting dispensaries to pay \$250k is unrealistic when many are only open couple of years and are still paying off loans and tax liabilities. It's not guaranteed that we will all make an extra 250k in profits to offset this costs to give us that one-year advantage over new licensees being awarded.

Missouri voted on Adult-use the same day as Maryland, have their program already live, and their conversions fee was \$2000/license: <https://health.mo.gov/safety/cannabis/facility-conversion.php>

We recommend reduction in conversion fees for the adult-use license to be more fair and in-line with other markets and/or our annual license fees.

### 2) Number of new licenses

There is regulation for 300 Standard dispensary licenses plus 200 micro dispensary licenses. We feel that this is too many dispensaries for the population of Maryland. There are already issues with medical dispensaries being close to one another in many of the districts and operators placing them on the same major roadway thus creating clusters of dispensaries.

Please note the dispensaries in other states that went recreational recently:

Arizona:143

Missouri: 192

Massachusetts: 225

There are 390 liquor stores in the entire state of Virginia and liquor prohibition ended in 1933. We know there are too many liquor stores in Maryland and we don't want the same situation with dispensaries.

Please note that as a minority-owned company, we wholeheartedly support the social equity pieces in this legislation.

### 3) Length to transfer license

The current hold period for medical licenses are 3 years and the State want adult-use hold period to be 5 years. If there are going to be 300+ dispensaries, I'm sure some operators will want to transfer their license after couple of years due to various reasons. We recommend keeping the hold period same as medical dispensaries to 3 years for adult-use licenses.

## 5) Advertising

The Bill specifies advertisement restrictions including signs, banners, and billboards. It's crazy to see the Alcohol, Tobacco, and Cannabis Commission restrict ads for cannabis when tobacco and alcohol have no such restrictions. We all see numerous ads in print, tv, and social media for tobacco and alcohol (and pharmaceutical drugs). We should be allowed to advertise on multiple mediums and follow the same protocols and restrictions as other industries managed by this new Commission.

Thank you again for the opportunity to testify and we hope this program launches on July 1<sup>st</sup>, 2023!

-Kal Shah  
Dispensary owner-operator

# **Written Testimony SB 516 - Favorable with Amendmen**

Uploaded by: Katherine Davis

Position: FWA



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**Cannabis Bill - SB516 – Friendly Amendment**  
**HEARING BEFORE THE SENATE FINANCE COMMITTEE**  
**MARCH 9, 2023**  
**POSITION: FAVORABLE WITH AMENDMENT**

The Pro Bono Resource Center of Maryland (“PBRC”), an independent 501(c)(3) non-profit organization, is the statewide thought leader and clearinghouse for volunteer civil legal services in Maryland. PBRC provides training, mentorship, and pro bono service opportunities to members of the private bar and offers direct legal services through free legal clinics. **PBRC urges support of SB 516 with a friendly amendment to dedicate 10% of cannabis tax revenue to an existing Special Fund administered by the Maryland Legal Services Corporation (MLSC) whose grantees provide vital legal services to the residents of communities most impacted by the war on drugs and the disproportionate enforcement of the cannabis prohibition.**

**This Amendment will create essential revenue for the Maryland Legal Services Corporation (MLSC) to provide critical civil legal services, including those provided by PBRC in areas such as housing rights, to some of the most vulnerable residents of our state.**

MLSC funding comprised 29% of PBRC’s budget in fiscal year 2022 and is anticipated to rise to close to 60% for FY23. Our projects include home preservation (covering tax sale and foreclosure prevention), consumer protection, family reunification, senior stability, eviction prevention and tenant advocacy. These projects incorporate extensive volunteer service components through community and courthouse clinics and offer vital civil legal services to thousands of clients in need. We also recruit, train, and engage hundreds of volunteer lawyers in the myriad of civil legal areas that impact low-income individuals and refer them to other legal services providers so they can offer high quality legal services to their client populations.

**In fiscal year 2022, PBRC volunteers and staff closed 2,427 cases through its projects.** In the vast majority of cases, clients represented by PBRC volunteers and staff prevailed or received positive outcomes: we prevented unlawful evictions, significantly reduced consumer debt collections, saved homes from tax sale, preserved intergenerational wealth by drafting life-planning documents to pass properties to family members, and facilitated legal education and outreach. Our work predominantly impacts lower income neighborhoods and people of color. Success rates for our clients ranged from 99% in consumer protection cases, to almost 78% for our tax sale prevention clinics, and 94% of clients either avoided an eviction entirely or were granted a postponement delaying the eviction through our Tenant Volunteer Lawyer of the Day Programs in Baltimore City and Baltimore County. **Grant funding from MLSC helps make these outcomes possible.**

During FY22, PBRC increased its staff and its reach because of funding from MLSC. With this additional staff, we have tripled the number of cases we have been able to handle in Rent Court alone. We have also expanded the types of cases for which we can provide representation. Yet there are consistently more clients in court than we have the capacity to represent. More help is needed to continue this important work of stabilizing communities by helping families avoid homelessness. We can provide this help – but not without the stable

and consistent funding from MLSC. This funding must remain stable so we can continue to hire additional staff and maintain the current programming and staff.

It is a common misconception that cases in rent court are simple cases where the only issue is whether a tenant has paid the rent alleged. While cases may appear simple at first, they can quickly become complicated. It is not unusual to have a dispute over a ledger or late fees, issues related to conditions in the home causing a danger to the life, health or safety of the tenant, or questions about licensing or who is included in the lease. In over 96% of these cases, landlords are represented either by an attorney or an agent who knows the law and the court processes. **Thus, tenants whose housing is at state must have counsel to ensure complicated matters are sorted out in an expedient and fair way. Low-income seniors also need legal help to prepare legal documents safeguarding their homes and passing their property onto their heirs, and attorneys with expertise to help avoid tax sales and mortgage foreclosures among the myriad of legal issues facing vulnerable populations in our state.**

**These are just a few of the many areas that will benefit from additional funding allotted to MLSC through the friendly amendment being offered to SB 516.**

PBRC supports Legal Aid of Maryland's friendly amendment to SB 516, which would help secure critical funding for the Maryland Legal Services Corporation and its grantees. Without these funds for representation, thousands of Marylanders will encounter homelessness, unemployment, family instability and entrenched poverty.

For the above reasons,

**PBRC urges a FAVORABLE report on SB 516 with Amendment.**

Please contact Sharon E. Goldsmith, Executive Director of PBRC, with any questions.

[sgoldsmith@probonomd.org](mailto:sgoldsmith@probonomd.org) • 443-703-3048

# **UFCW 400 Favorable with Amendments Testimony to SB**

Uploaded by: Kayla Mock

Position: FWA



**SB 516 – Cannabis Reform  
Favorable with Amendments  
March 8, 2023**

To: The Honorable Chair Griffith, Vice Chair Klausmeier, and Members of the Senate Finance Committee

From: Kayla Mock, Political & Legislative Director  
United Food and Commercial Workers Union, Local 400

Dear Chair Griffith and members of the Senate Finance Committee:

I appreciate the opportunity to share testimony on behalf of our over 10,000 members in Maryland, who have worked the frontlines and have been essential employees in grocery, retail, food distribution, law enforcement, healthcare, and cannabis. Through collective bargaining, our members raise the workplace standards of wages, benefits, safety, and retirement for all workers.

**We are favorable with amendments to SB 516.**

We are optimistic with the framework of the bill and appreciate its thoughtful dedication to ensuring social equity. This bill will help set a national standard and act as a model for other states as cannabis legalization moves forward. We do have concerns over the lack of labor peace agreements and the impacts this could have on cannabis workers.

UFCW represents thousands of cannabis workers across the United States in dispensaries, labs, delivery, kitchens, manufacturing, processing, grow facilities, and more. Through collective bargaining, these workers have secured better wages, protection from unfair discipline, and affordable benefits. Through organizing and collective bargaining, UFCW members have been advocates for the establishment of industry wide standards for sustainable and equitable jobs.

A labor peace agreement is an agreement licensees sign with a labor union stating that if or when their employees decide to organize, their employer will not interfere. It also states that the labor union may not picket, strike, or engage in other work stoppages or boycotts. Labor peace agreements are not new to Maryland as they have been passed into law before, most prominently with casino licensing. Additionally, other states such as Connecticut, New Jersey, New York, California, and Rhode Island all have labor peace language in their recreational cannabis regulations (with other states using LPA's in medicinal).

Unfortunately, labor law is inadequate in fully protecting workers' rights to organize a union freely and fairly. While the law states that workers may not be fired, retaliated against, or coerced into not organizing, companies often break the law, knowing there are no real consequences of doing so. Additionally, labor peace agreements protect the state's proprietary interests by forbidding unions to engage in any kind of business disruptions. Labor peace protects the state's proprietary interests by creating placidity amongst all parties.

Cannabis industry jobs should be high road, quality, sustainable jobs. By giving workers a free and fair opportunity to organize and bargain, workers can set standards on what's best for them, their workplace, their families, and communities. Social equity is about ensuring workers have access to wealth, opportunities, and high workplace standards. Cannabis is predicted to be a multi-billion-dollar industry, so the inclusion of labor peace would provide a pathway for workers to have a part.

Page 2

March 3, 2023

SB 516 - Cannabis Reform – Favorable with Amendments

To: The Honorable Chair Wilson

From: Kayla Mock, UFCW Local 400

Labor peace agreements are not forced unionization, they simply state that employers would have to remain neutral upon their workers deciding to organize. Additionally, labor peace is not forced labor standards, which could cause undue stress on smaller businesses. Upon organizing, employers and employees would have to bargain over individual company standards.

Labor peace agreements can also address the existing disparities in the cannabis job market by providing equal opportunities for women, people of color, LGBTQ+ individuals, veterans, and people with disabilities to own businesses or work within the industry. Access to representation helps ensure that a broad range of workers can benefit from the industry, especially workers from communities that have been disproportionately impacted by cannabis prohibition in the past.

With respect, **we kindly request the inclusion of labor peace agreements in SB 516.**

**(Please see below for model labor peace agreement language.)**

## Model Labor Peace Agreement Language

“A labor peace agreement” is an agreement between a cannabis establishment and a bona fide labor organization that, at a minimum, protects the state’s proprietary interests by prohibiting the labor organization from engaging in picketing, work stoppages or boycotts against the cannabis establishment.

"Bona Fide Labor Organization" means a labor organization, as defined by [29 U.S.C. 402\(i\)](#), that is actively seeking to represent cannabis workers in the state. In making this determination, the agency shall consider each of the following as indicative, but not determinative, of a finding that a labor organization is a “Bona Fide Labor Organization”:

- a. The labor organization has been recognized or certified as the bargaining representative for cannabis employees in the state;
- b. The labor organization has executed current collective bargaining agreement(s) with cannabis employers in the state;
- c. The labor organization has spent resources as part of current and active attempt(s) to organize and represent cannabis workers in the state;
- d. The labor organization has filed the annual report required by [29 U.S.C. 431\(b\)](#) for the three years immediately preceding;
- e. The labor organization has audited financial reports covering the three years immediately preceding;
- f. The existence of written bylaws or constitution for the three years immediately preceding; and
- g. The labor organization’s affiliation with any regional or national association of unions, including but not limited to central labor councils.

All cannabis establishment initial applicants, renewal applicants, and licensee holders must have entered into, have maintained, and abide by the terms of a labor peace agreement. This labor peace agreement requirement is an ongoing material condition of the license, of which a violation may result in denial, suspension, or revocation of the license.

All initial applicants must submit an attestation signed by both the applicant and the bona fide labor organization stating that the applicant meets this paragraph’s requirements, has entered into and maintained, as is abiding by the terms of a labor peace agreement (“LPA attestation”). All renewal applicants must submit a new LPA attestation executed within [X] days of the submission date of the renewal application. An applicant’s failure to submit a timely LPA attestation will result in a denial of the initial or renewal license.

The [X] agency shall have the authority and be required to determine a schedule establishing the ongoing review of the status and maintenance of a labor peace agreement to assess eligibility of license holder. Upon review and findings of unsatisfactory status or the insufficient maintenance of a labor peace agreement [X] agency shall suspend a licensee for the sale, cultivation, production, or manufacturing of cannabis.

**SB516\_Musselman\_FWA.pdf**

Uploaded by: Kenna Musselman

Position: FWA

I am writing to you as a concerned business owner in the hemp industry. I am the sole owner of Foxwell Pharms LLC (a sustainably curated agricultural greenspace dedicated to the cultivation of industrial hemp), Foxwell Farms LLC (a vertically integrated full spectrum cannabinoid producer of self-care and alternative wellness products), and Foxwell Labs LLC (a producer of specialty cannabinoid products). All of these businesses are base in my hometown of Anne Arundel County, and actively work to support our communities through various outreach networks, community charities, and educational classes. We have seen a benefit not only in our local environment and watershed from our agricultural practices, but also a positive impact in the lives of those that have utilized our hemp products.

As a woman-owned business, I have had the privilege to find success in this male-centric field. After four years of effort, meticulous planning, and copious expenditures to the tune of \$350,000, it pains me to see our industry set for the chopping block. Coming from meager beginnings in a blue-collar family, my efforts in this industry have been a labor of passion and determination. My companies buy local, supply local, support local in every way possible. Our products are produced in Maryland, above current quality standards and regulations. We ambitiously look to the future for opportunities to grow and further support our county, our state, our home.

As unintentional as it may be, the current verbiage in SB516 calls for an end to the hemp industry. For years we have struggled in the shadow of big cannabis, fought to obtain space in a non-supported market, did our due diligence – endlessly researched, created innovative products, broke through the monetary glass ceiling and overcame every single barrier to entry laid out before us – all for one bill to sweep it all away.

Maryland's cannabis and hemp industries are not the same. While Cannabis sativa L is the basis of both markets, the hemp industry has tirelessly worked to develop a deeper understanding of the plant and its interactions with the body – focusing strongly on the therapeutic benefits. In contrast, time has shown us the only thing large cannabis companies are interested in is exploiting the low hanging fruit – Delta 9 THC. Why would the legislature actively work to legalize and support a federally illegal industry at the cost of disenfranchising and ostracizing a federally legal industry, that has honestly brought more legitimized good to the people?

Closing the doors to Maryland's hemp industry not only sets the state back in the national marketplace, but also alienates the thousands of citizens that rely on hemp products in their daily lives. These individuals are not relying on hemp products to achieve intoxication. By contrast, they are using cannabinoid-rich topicals, salves, personal care items, consumables, etc to address their own personal needs, often times at the suggestion of medical professionals. Please do not take away our ability to create, produce, and sell these very much needed products in favor of high Delta 9 THC cannabis.

Instead, I would ask that the legislature lean towards regulation rather than eradication. In the interest of public and consumer safety, I strongly believe that both industries (hemp and cannabis) would benefit from clear and transparent regulation and enforcement. Stricter labeling requirements and testing standards would work to eliminate hazards and risk to our consumers and add a layer of legitimacy to both industries.

As a producer of hemp products, I would like to see the language of the bill amended to remove THC caps from hemp/cannabis products. The 2018 Farm Bill allows for the sale of hemp-derived products containing less than 0.3% Delta 9 THC on a dry weight basis, or 3mg per gram

of product. As written, SB516 limits the amount of THC to 2.5mg per package, regardless of package size – rendering all full spectrum products illegal to produce and sell within the state. These types of limitations will force our industry to crumble. We cannot adapt and flourish under this new legislation. Most of us will not receive the opportunity to see a cannabis license due to financial constraints, fear of an unknown marketplace, and reluctance to join an industry (cannabis) that has routinely belittled and taken advantage of our industry’s tenacity and innovative spirit.

As a farmer, I would like to see my ability to cultivate Cannabis sativa L protected. I would like to know that Maryland is actively working to create legislation that supports inclusion of the hemp industry, rather than positioning my farm, my crop, my livelihood on the chopping block.

Thank you for your time.

Sincerely,

Kenna Musselman

Kenna Musselman, Founder & Operator  
Foxwell Pharms LLC | Foxwell Farms LLC| Foxwell Labs LLC  
(443) 854-6704

*Proposed Amendments to SB516*

Page 18, line 19: (C) (1) A DELTA-9-TETRAHYDROCANNABINOL  
CONCENTRATION GREATER THAN [0.3%] 1% ON A DRY WEIGHT BASIS.

Page 69, lines 24: (A) (1) [0.5 MILLIGRAMS OF TETRAHYDROCANNABINOL PER  
SERVING OR 2.5 MILLIGRAMS OF TETRAHYDROCANNABINOL] 1% DELTA-9-

TETRAHYDROCANNABINOL ON A DRY WEIGHT BASIS UNLESS THE PERSON IS  
LICENSED

Page 70, Line 8, STIRKE : [(B) A PERSON MAY NOT SELL OR DISTRIBUTE A  
CANNABINOID PRODUCT THAT IS NOT DERIVED FROM NATURALLY  
OCCURRING BIOLOGICALLY ACTIVE CHEMICAL CONSTITUENTS.



**Document 12 (1).pdf**

Uploaded by: Kimberly Boucher

Position: FWA

February 17, 2023

Testimony of Amran Pasha

HB 556 ADULT USE CANNABIS

Dear Chair Wilson:

My name is Amran Pasha. I'm the Managing Member of the Dispensary, a medical cannabis dispensary, located in Westminster, Maryland. I support the legalization of cannabis for adult use. Legalization will lead to the creation of thousands of jobs in Maryland; result in substantial increase in tax revenue; shutter the black market; and finally, and perhaps most importantly, bring economic benefits to communities which have been disproportionately impacted by the "war on drugs. While HB 556 provides a reasonable framework for the legalization of cannabis, I have a number of concerns regarding the phasing of the licenses.

Opening an adult use cannabis dispensary is a complex undertaking. Medical cannabis pre-approvals were sent out December 9, 2016. Out of the 95 pre-approved licenses granted, 23 opened in 2017; 50 opened in 2018 with the balance, 22 opening in 2019 and 2020. The weighted average time to open a medical dispensary was 21 months.

As a medical cannabis licensee, I went through the process of licensing, leasing, zoning, permitting, build-out and finally stocking and hiring staff. . In my case, it took a year to find a landlord willing to permit this use. Then it took another 6 months to gain local zoning approval; 6 months for building permits; 8 months to buildout; and another 4 months for final MMCC approval, purchasing inventory and hiring staff. Based on the history of medical cannabis licensing we need to give the social equity licensees enough time to achieve success.

As drafted, the Bill currently provides the social equity licenses to commence issuance on January 1, 2024, and four months later start round 2. This is not enough time to give the social equity licensees time get up and running. Therefore, I want to urge changes to section 36-402(E) to provide for the Attorney General to make a determination that social equity licensees are on a path to success prior to the commencement of the second round licenses to give the social equity licensees enough time to become operational, stabilize their business and become successful.

Thank you for your consideration.

Mr. Chair, committee members, Thank you for the opportunity to hear my voice.

My name is Michael Ben-Yosef .

I'm the owner of "the dispensary", a small business in Carroll county.

I've immigrated to this country because I believe in hard work, equal rights and following the law.

I'd like to suggest 3 amendments to this bill that will affect the future of my business and the future of my 50 employees and their families.

Section 36-403 subsection E (2), states that the renewal fee, may not exceed 10% of the annual gross revenue.

This fee is equivalent to the conversion fee but due every year.

with the current tax laws, I WILL NOT be able to afford to pay it every year.

As a small business owner, I will have to close down my doors and let all my employees go.

I suggest, respectfully, keeping the \$40,000 licensing fee same as it is now.

My conversion fee, calculated in this bill, should be \$1M.

I feel that this fee is proportionately high compare to my net income.

I will not be able to afford this kind of fee and it'll put me in a big disadvantage competing with the new licensees that require to pay ONLY \$25000.

Therefore, as a small business owner, I'll have to close down my doors and let all my employees go.

I suggest matching conversion fee to new license fee in the amount of \$25000

The bill is offering to add 200 more dispensaries and 200 micro dispensaries which designate to convert over time to regular licenses.

Having 400 MORE dispensary licenses will reduce everyone's sales and profitability drastically.

having so much new competition, combining with all other fees, will make it impossible for me to stay in business.

As a small business owner, I'll have to close down my doors and let all my employees go.

I suggest to have a study done, by the committee, after the first round of licenses, to reevaluate the need of more licenses before the second round of licenses is being distributed.

Thank you for your time.

# **Cognivue Adult-Use Written Testimony.pdf**

Uploaded by: Kristin Weber

Position: FWA



Submitted to:

Maryland Senate Finance Committee

Annapolis, MD – March 9, 2023

Testimony from Cognivue

Kristin Weber, Director of Strategic Accounts

Support with Amendment: Cannabis Reform (SB 516)

## **Introduction**

Cognivue is an applied science company based in New York that develops cognitive health assessment technology. The company's mission is to elevate the gold standard of cognitive health assessment, reduce the stigma of cognitive issues, and empower action with early detection.

Cognivue has pursued this mission by creating the world's first FDA-cleared computerized test of cognitive function. The Cognivue technology is a self-administered, reliable, non-invasive tool to assess cognition in five minutes. The technology is backed by more than 15 years of research at the National Eye Institute and the University of Rochester. Cognivue eliminates most common biases associated with other testing modalities and is independent of educational or socio-demographic-economic level. Our devices are currently used by neurologists and other physicians across the U.S., including in Maryland, in screening for early detection of cognitive decline and dementia. We believe there is a very positive role our technology can play within the safety and law enforcement community to help keep our roads and highways safe from drug impaired drivers.

Cognivue submits this statement in support of SB 516 with an amendment.

## **Proposed Change**

We recommend amending the language in 13-4505(F)(6) to include “or impairment from cannabis” after “cannabis levels” as follows:

(6) Purchasing technology proven to be effective at measuring cannabis levels or impairment from cannabis in drivers.

## **Reasoning**

Cannabis-impaired driving is one of the most pressing outstanding cannabis policy matters in states with legalization laws. Current standards and screening methods, such as using breathalyzers or blood samples, are effective for alcohol and other drugs, but they are inadequate and problematic when applied to cannabis. Substances like THC, the intoxicating component of cannabis, affect the body differently than alcohol, and their presence in the body does not directly correlate with impairment. This is because THC can remain in the body for weeks, and THC concentration will rapidly drop after use despite an individual still being impaired. These methodologies are also harmful to consistent, legal users of cannabis because they can have up to 5 nanograms per milliliter (ng/ml) of THC in their system and not be impaired. For these reasons, it is not possible to regulate cannabis impairment based on THC levels as we regulate alcohol impairment based on a driver’s blood alcohol level measured by a breathalyzer, as this creates a variety of false-positives and false-negatives.

Due to the scientific shortcomings in measuring cannabis levels directly, Cognivue has opted to take a unique approach by directly measuring cognitive impairment. Unlike blood tests, the Cognivue technology is non-invasive and requires minimal police resources. While blood tests typically require transportation to a facility, at which time a drivers’ THC level can decrease, the technology Cognivue is developing can provide clear results in five minutes and would be portable for roadside use.

Under the bill’s current language, Cognivue and other similar technology that could help law enforcement keep our roads safe would not be able to be purchased using the Public Health Fund. This is because the Cognivue device, which is based on FDA cleared technology, tests for cognitive impairment rather than for cannabis levels in drivers. If the intent of this clause is to help police deploy technology to combat cannabis-impaired driving, it would be more effective if it allowed for both types of technology, rather than only those that measure cannabis levels.

**For these reasons, we urge the committee to amend the language in 13-4505(F)(6) to include rather than exclude devices that measure cognitive impairment.**

# **SB516 Testimony Lauren Simpson.pdf**

Uploaded by: Lauren Simpson

Position: FWA





GREENWAVE DISPENSARY  
P.O. BOX 442  
70 HOLIDAY DR.  
SOLOMONS, MD 20688

March 8th, 2023

Maryland Senate

RE: Senate Bill 0516 By: Senator Feldman

Maryland Senators

I would like to offer my written testimony in support of SB0516 with amendments and requested clarifications on behalf of Greenwave Dispensary located in Solomons, MD.

We are an independent woman owned and operated dispensary. The social equity licensing round is a welcomed and exciting plan for our industry. I am confident some of my current concerns in this bill would closely mirror those of new social equity dispensary licensees.

Being an independent operator comes with obvious supply challenges and disparity when competing with vertically integrated companies. The House Bill 0556 seeks to remove the ability to repackage all cannabis product at the dispensary level. The ability to repackage cannabis bulk flower in house gives independent dispensaries like myself a much needed boost in margins. This measure will benefit growers and vertically integrated licensees at the expense of small independent dispensaries, whom are already at a competitive disadvantage.

In regards to the micro-licensing some clarification on these licenses is needed. Will these entities be able to purchase wholesale direct from growers or work as a middle man between dispensaries and clients replacing the current dispensary delivery functions? Micro-licenses being able to purchase wholesale would be another level of competitive disadvantage for independent dispensaries. Their overhead would be much lower and they will be competing directly with an already highly competitive dispensary market in many areas of the state. The pilot program for micro-licensing, as well as round 2 licenses, should be delayed until new social equity licenses can get up and running and a market study can be conducted.

Finally, regarding the installment plan referenced in HB0556 for the conversion fees, this is critical for independent dispensaries. Any extension of this timeline would be greatly appreciated. I suggest 24 months vs 18 for the payment plan.

Thank you for the opportunity to provide input at such a dynamic and exciting time in my industry.

Respectfully,

*Lauren Simpson*  
Lauren Simpson

Director

Greenwave, LLC

lauren@greenwavemd.com

Cell: (443) 277-7046



# **LaWann Stribling Testimony sb516.pdf**

Uploaded by: LaWann Stribling

Position: FWA



Maryland General Assembly  
Senatw Finance Committee  
Annapolis, MD - March 9, 2023

Testimony from LaWann Stribling, Strib'ble District LLC

Support with amendments and information: Cannabis Reform- (SB0516)

Thank you for your commitment to end the "intentional" war on drugs.

Cannabis is an herb grown naturally before prohibition from the ground and from the sun. Cannabis is an herb as other herbs like lavender, chamomile, mullein, mugwort all grown naturally from the ground and from the sun. Cannabis education is needed to understand it should not be viewed as another intoxicant like alcohol and tobacco. Alcohol and Tobacco possess no healing properties and cause damage to you physically and emotionally.

For me personally as someone who benefits from all types of herbs would allow the ability to educate clients and future clients on responsible and respectable microdosing.

To address the benefit in Social Equity: There is no way imaginable to determine who has been affected by the war on drugs and disenfranchisement by zip code hb556. As a Maryland Descendant of Chattel Slavery I am still trying to crawl up from the dirt up under my feet. My family has been continuously disenfranchised since being enslaved. The hurdles are non stop in every direction and moving from one zip code to the other in hopes of a better life just leaves you still completely struggling because you never had the wealth to support you in the beginning. I have a 27 years old son who was born out of wedlock to a homeless teen mom, you know he is highly upset with me because I didn't set him up for his future, he was

wondering why his mom didn't have a car for him to drive at 16 and a college fund ready for his graduation. How as someone who is still trying to truly LIVE in this society that has oppressed me and my ancestors. Social Equity begins with following the history of that person's last name. Social equity begins with addressing the poverty in our community outside of a zip code. This is generations of oppression and redlining, this situation did not happen overnight. I will refer you to watch episode 6 of The New York Times 1619 Project on Hulu. There you will see the information to support my statements.

I would like to begin with why Social Equity in Cannabis is extremely important.

In order to understand how we got to this point of inequalities, one needs to know the history behind the War on Drugs. In 1930, Harry Anslinger was appointed by his father to be the first Commissioner of the Federal Bureau of Narcotics, now known today as the DEA. From his appointed positions Anslinger opined for extremely harsh drug laws and ridiculously long prison sentences. This began the foundation that ultimately led to the mass incarceration of people of color, mainly those of African and Mexican descent. From then, Police Departments began to have militarized access to raid homes and businesses of Black and Brown residents which included known musicians, actors and actresses.

Persecuting Black and Brown Residents destroyed the backbone for these families for centuries to come. It is 2022 and we are still suffering from the damage caused by Anslinger's – and later Richard Nixon's, ramped up War on Drugs. This War on Drugs has created a profitable business for Private Prisons, bail bonds and cities across the country and nation. Anslinger associated cannabis use with the enabling of Black and Brown residents with the belief that it gave us a sense of entitlement for success. Being able to use laws to harass, incarcerate and murder have created the world we live in today that is full of inequities, inequalities and injustices.

Addressing the social inequities in Cannabis today would free those incarcerated, change the racist laws surrounding drugs and plants and give hope to our current and future generations. Social equity in Cannabis would allow families to rebuild what has been stripped from them. Addressing the equity would begin to correct the decades of unfairness to many Black and Brown families. It's HOPE, hope that we can live our lives using natural holistic methods for wellness without criminalization and prosecution. To have a way for families to build up wealth and change the climate of poverty, red lining, lack of education and resources.

In 2019 I aspired to apply to be a processor on the cottage level for cannabis infusions. That dream quickly faded when I began to read the application process. That dream would not come to fruition with current policies that emphasize the need for excessive equity and capital. I do not possess either! I could not afford step 1 in the application process which cuts my family's cottage business dreams down. Providing low barriers of entry into the industry seeks to amend the history of injustices surrounding marijuana, poverty, redlining, mass incarceration and lack of wealth and resources for Black and Brown residents. I am here to advocate for small

businesses located throughout the state and not by zipcode who have evidence of generational disenfranchisement, trauma and the effects of the war on drugs.

As a business owner in the state and a medical cannabis advocate, caregiver and patient I feel discriminated against. Plant count should increase to allow patients the ability to heal at home with limited income resources as well as provide for their patients as caregivers. Regarding all hindrances including the ownership of guns. How can I truly protect my household and myself? As an American Descendant of Chattel Slavery being protected is the number one priority. There are business owners and residents that use various prescribed drugs that alter one's mindset along with using alcohol and they are not restricted from owning and possessing firearms.

Studies have been done within the last few years that show alcohol and other prescribed drugs are far more dangerous than cannabis. In 2009 a study was done on alcohol, cannabis and alcohol/cannabis consumption and the effects on driving. "Epidemiological studies have been inconclusive regarding whether cannabis use causes an increased risk of accidents; in contrast, unanimity exists that alcohol use increases crash risk."

<https://pubmed.ncbi.nlm.nih.gov/19340636/>

MPP release comparing alcohol and cannabis: <https://www.mpp.org/special/marijuana-is-safer/>

[As National Institute on Drug Abuse health scientist Ruben Baler put it:

"You can die binge-drinking five minutes after you've been exposed to alcohol. That isn't going to happen with marijuana," [...] "The impact of marijuana use is much subtler."

But does that mean cannabis' grass is greener or are we simply trading one toxic drug for another? Or are we finally seeing a flipping of these 'vice substances' where a truly medicinal plant that has a wide range of health benefits in comparison to drinking alcohol and liquor (which are known-carcinogens and predominately is being consumed for an evening's festivities and pleasure) is surfacing as the top preference among people around the world.]

<https://www.healthmj.com/cannabis/alcohol-marijuana-use/>

I'm seeking to amend the history of injustices surrounding marihuana, poverty, redlining, mass incarceration and lack of wealth and resources for Black and Brown residents.

I'm HOPE, for myself, my family and the generations that will come after me. It is past time to correct the foundational racist laws that govern our everyday lives.

I fully support bills to address social equity, home grow, decriminalization, farming rights, abuse victims rights and small highly melanated cottage businesses.

Cannabis overall has many benefits when you use it respectfully and responsibly. For me at 46 years old my main points of wellness for using this medicine are a great way to relax from the demands of my busy life and schedule, it helps to improve my focus and organizational methods and sparks that creativity that sits dormant as an introvert.

<https://www.weresurviving.com/post/cannabis-freedom-day-520>

It is past time to correct the foundational racist laws that govern our everyday lives.  
#innocenceproject #520

I somewhat support bill 556 with very detailed amendments to address the commission, social equity, home grow, decriminalization and cottage businesses.  
Harry Anslinger's quotes:

“ . . the primary reason to outlaw marijuana is its effect on the degenerate races “ **---(attributed to) Harry Anslinger during congressional hearings**

“Marihuana leads to pacifism and Communist brainwashing.” — **(attributed to) Harry Anslinger during congressional hearings (era 1947-48)**

“Negro entertainers with their jazz and swing music are declared an outgrowth of marihuana use which possesses white women to tap their feet.” — **statements to Congress by Anslinger, FBN - 1937-50:**

Thank you for allowing my submission,

LaWann Stribling, a Wife, Mom, Entrepreneur, Advocate & Lobbyist  
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7720 Jacobs Drive  
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Deputy Director NORMLMD  
[lawann.marylandnorml@gmail.com](mailto:lawann.marylandnorml@gmail.com)

Ref: [Anslinger's Quotes](#)

[http://reefermadnessmuseum.org/HarryAnslinger/Addendum\\_AnslingerPsy/AnslingerQuotes.htm](http://reefermadnessmuseum.org/HarryAnslinger/Addendum_AnslingerPsy/AnslingerQuotes.htm)

MLK/FBI on Hulu documentaries  
1619 Project New York Times Articles  
1619 Project Hulu documentaries  
Exterminate All the Brutes HBO Max Documentaries

The National Cannabis Festival truly did its thing AGAIN! As a 1st timer to the Policy Summit to a returning Advocacy Vendor to a Ticket Holder to enjoy the festivities the entire showcase was set up for everyone's enjoyment that's 21 and over. If you didn't get a chance to attend the Summit this year, be sure to sign up for next year when it is available. The Amphitheater at the Ronald Reagan Building gave off a natural flowy intimate vibe for these one on ones and panelist discussions. You missed the opportunity to hear from amazing Women in Advocacy like Toi Hutchinson President & Founder MPP to US Senate Candidate Gary Chambers Jr Gary Chambers for Louisiana | Do Good. Seek Justice. Did I mention the matter of water retention? It is always a great place to be when you get to learn new things. I find it peculiar that this summit was held at the Ronald Reagan Building "Just Say No"!

Now that 420 is out the way let's get back to focusing on ACTION!

That action being advocating, educating and lobbying for Parents, Adults and Children Patients to have #cannabisfreedom. Cannabis Freedom should be a birth right for every individual born. Are you aware that prior to the introduction of hypodermic needles cannabis was medicine for everyone? I recall opening the medicine cabinet in our family home in NWDC growing up and seeing tincture bottles. Cannabis as medicine can be traced back 6000 years. You can find many references in medical journals from China, India & Egypt. These journals document the uses of hemp for its protein rich fibers, oils and seeds to produce cloths, paper and rope. India lists cannabis as 1 of the five sacred plants of Hinduism. Cannabis was integral in worship. People started using it to alleviate epilepsy, rabies, rheumatism, anxiety, and even bronchitis and asthma. To this date cannabis is an essential ingredient to a popular drink called bhang.

Historical evidence suggests China was the 1st culture to use cannabis to alleviate pain and other various treatments. Even with the medicinal benefits, back in 4000 B.C. Physicians warned their patients that using the plant excessively could cause them to see demons.

In Medieval Times a Persian Physician lists cannabis as one of the most effective drugs for curing edema, gout, headaches, severe wounds, as well as epilepsy. In the 1300s Africa is recorded for using cannabis to treat asthma, fever, malaria, and dysentery. Europeans relied on cannabis as a means of treating various conditions such as cough, tumors, and jaundice. In the 1600s Spanish Conquistadors brought hemp cannabis to North and South America. It took another 200 to 300 years before Cannabis therapeutic benefits were discovered in America. In the 1830s to 1840s an Irish Physician named William O'Shaughnessy advocated the use of cannabis for treating rheumatism and nausea both in England and America. He discovered that the drug was completely safe, so he began prescribing it to his patients, which brought him a fair deal of success. One of his biggest achievements came when he managed to successfully

treat muscle spasms caused by rabies and tetanus. Dr O'Shaughnessy introduced Cannabis Sativa and Cannabis Indica to England and America. In the 19th Century Marihuana became mainstream medicine in the west. Pharmacies sold cannabis-based cures and more than 100 papers were published on the therapeutic uses of cannabis.

Learning about the foundations of Cannabis around the world makes you wonder how this amazing plant became a prohibited schedule 1 drug. Dr. O'Shaughnessy's research also led to the development of intravenous therapy. The hypodermic needles were also invented around this time. This discovery pushed the treatment of medical marihuana to the beginning of extinction. Vaccinations were invented like the tetanus that put cannabis in the redundant category along with the invention of synthetic painkillers like aspirin. In 1937 The Marihuana Tax Act completely terminated the use of Cannabis for Medicinal Purposes. This is the foundation of our profitable criminal justice system and failed mental healthcare programs.

Drafted by the Founding Father of Cannabis Prohibition Harry Anslinger. The Marijuana Tax Act of 1937 is a U.S. federal law that imposed tax on the sale of cannabis, hemp, or marijuana.

According to Wikipedia: The total production of hemp fiber in the United States in 1933 decreased to around 500 tons per year. Cultivation of hemp began to increase in 1934 and 1935, but production remained low compared with other fibers. Interested parties note the aim of the Act was to reduce the hemp industry through excessive taxation largely as an effort of businessmen Andrew Mellon, Randolph Hearst, and the Du Pont family. The same parties argue with the invention of the decorticator, hemp was an economical replacement for paper pulp in the newspaper industry. Newspaper magnate William Randolph Hearst realized cheap, sustainable, and easily-grown hemp threatened his extensive timber holdings. Mellon, Secretary of the Treasury and the wealthiest man in the US, invested heavily in the Du Pont family's new synthetic fiber, nylon, to compete with hemp.

The American Medical Association (AMA) opposed the taxation because the tax was imposed on physicians prescribing cannabis, retail pharmacists selling cannabis, and medical cannabis cultivation/manufacturing. The AMA proposed cannabis instead be added to the Harrison Narcotics Tax Act. The taxation 'law' was passed despite objections of the American Medical Association. Dr. William Creighton Woodward, legislative counsel for the AMA, objected to the taxation on the grounds the bill was written by Du Pont lawyers without the legally-binding time to prepare their opposition to the bill. He doubted their claims about marijuana addiction, violence, and overdose; he further asserted that because the Spanish word Marihuana was



largely unknown at the time, the medical profession did not realize they were losing cannabis. "Marijuana is not the correct term ... Yet the burden of this bill is placed heavily on the doctors and pharmacists of this country."

After hearings with lawyers from Du Pont Chemicals and the Hearst Newspapers Group, the taxation was passed on the grounds of 'differing' reports and hearings. Anslinger also referred to the International Opium Convention from 1928 included cannabis as a drug not a medicine. All state legislators approved identical 'laws' against improper use of cannabis (for ex. the Uniform State Narcotic Act). By 1951, however, spokespeople from Du Pont, Hearst and others came up with new improved rationalizations, and the Boggs Act superseded the Marihuana Taxation Act of 1937. In August 1954, the Internal Revenue Code of 1954 was enacted, and the Marihuana Taxation Act was included in Subchapter A of Chapter 39 of the 1954 Code.

Now that we got some history behind Cannabis Prohibition, are you aware the State of Maryland is 1 of the last states to decide if they will legalize cannabis? Are you aware that Maryland is still arresting residents for cannabis even though we have a legal medical program? In 2020 91% of arrests in Baltimore, MD were cannabis related. In Maryland, cannabis ownership of fewer than 10 grams is legalized and punishable by a civil fine of up to \$100. It is a crime to have any amount of marijuana in your possession with the intent to sell it. The maximum penalty is five years in jail and a fine of \$15,000 if the quantity is less than 50 pounds. The penalties are the same with weights larger than 50 pounds, except that a five-year obligatory minimum jail sentence is applied.

Maryland has a "drug kingpin" legislation that punishes elevated smugglers with at least 20 years in jail and up to 40 years in jail, as well as penalties of up to \$1 million. In addition, transporting marijuana is a crime in Maryland, with any cannabis violation involving five kilos or more being deemed smuggling. The maximum penalty is 10 years in jail plus \$10,000 in penalties if the amount is between five and 45 kg. The maximum penalty for trafficking is 25 years in jail and \$50,000 in fines for amounts higher than 45 kilos. For drug trafficking while in possession of a handgun, a term of at least five years and up to twenty years is imposed.

According to the Maryland Reporter, medical marijuana boosted tax revenue. The "drug" injected \$10,371,437 into the state revenue in the 2019 financial year. The figure was more than what the entire state spent, which was to the tune of \$5,608,806. Proceeds from medical marijuana sales could have funded the state expenditure that year. This figure marked a magical leap from about \$3.5M in the previous year. Maryland companies earned a whopping \$96 million altogether.

I ask again, why is this amazing plant being used to criminalize citizens that choose to medicate naturally? It is our responsibility as residents to correct the racist wrongs of the past. We don't need another study or report to show you the conditions melanated individuals have been living under with the Cannabis Prohibition. As an advocate for justice, I try to donate and bring awareness to matters of importance. When it comes to criminal injustices our state is complicit in many falsified facts to make the case stick and win in the court of law. It is our duty to speak against these injustices and to fight for the power of the people. Martin Mitchell and Stanford Fraser recently held an expungement clinic in Laurel MD. From their event I was introduced to Quiana Johnson, Founder of Life After Release Organization. I was overcome with excitement because I was not aware that we had a local organization for formerly incarcerated, especially woman owned. Life After Release (LAR) is a formerly incarcerated women-led organization in the DMV area (DC-Maryland-Virginia). We are organizing to build a post-conviction movement where we have the right to challenge our convictions and the system responsible for convicting us in the first place. Our work is grounded in a vision of self-determination for directly-impacted communities and has four main pillars....

The focus is Cannabis Freedom! As most of you are aware Jonathan Wall's trial begins today in Baltimore, MD. The action for this month is to support cannabis freedom in Maryland, The Country and World by advocating to free Jonathan Wall and all other non violent residents incarcerated by the Intentional War of Drugs. Jonathan's support team is requesting you show up at the court house to show your support throughout the duration of this trial. Click the link for more details.

LaWann Stribling  
Strib'ble District LLC  
Deputy Director MDNORML

Resources Below:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2561263/>

<https://greencamp.com/history-of-medical-marijuana/>

<https://www.breakingasia.com/china/chinas-ancient-cannabis-culture/>

[https://en.wikipedia.org/wiki/Leary\\_v.\\_United\\_States](https://en.wikipedia.org/wiki/Leary_v._United_States)

<https://ucr.fbi.gov/crime-in-the-u.s/1996/96sec5.pdf>



# **SB 516 Testimony in Support of Cannabis Reform.pdf**

Uploaded by: Lawrence Brown

Position: FWA

Lawrence T. Brown, PhD, MPA  
2001 W. Cold Springs Lane  
Suite 122  
Baltimore, MD 21209

March 8, 2023

Maryland State Senate  
Miller Senate Office Building  
11 Bladen Street  
Annapolis, MD 21401

Dear Maryland Senate Finance and Budget & Taxation Committees,

I am writing in full support of Senate bill 516 entitled *Cannabis Reform*. Therefore, I urge both the Finance and the Budget & Finance committees to offer a favorable report.

However, the bill can be made stronger with respect to social equity with the following amendments:

- Pages 11-12 Increase representation on the advisory board by adding 3 seats for members of trade or lobbying groups that advocate for more participation by minorities in the cannabis industry. The positions listed in lines 26-28 on page 11 and lines 1-2 on page 12 focus on cannabis consumers. But there should be representation by advocates who wish to see more minorities in the cannabis industry as producers or wealth generators (i.e. growers, processors, and dispensaries).
- Page 24 To maximize the equitable distribution of licenses, the language “individuals who have been convicted of a violation of a law criminalizing the use of cannabis” should be added as an additional criteria for becoming a Social Equity Applicant after line 18.

With these critical additions, the Cannabis Reform bill will be even stronger in its ability to help foster an equitable cannabis industry in the State of Maryland.

Sincerely,



Lawrence T. Brown, PhD, MPA  
Research scientist  
Center for Urban Health Equity  
Morgan State University

# **2023 MD General Assembly Written Testimony - SB 51**

Uploaded by: Lawrence Grandpre

Position: FWA



**2023 MD General Assembly  
Written Testimony - SB 516**

**CONTACT:**

Lawrence Grandpre  
Director of Research, Leaders of a Beautiful Struggle  
lawrence@lbsbaltimore.com

We support with amendments. It's clear legalization is overdue. Our issue is with ensure we have money for our community reinvestment fund for reparations for the war on Drugs.

While it is possible there is a trade-off between addressing the black market by keeping cannabis inexpensive and higher tax rates, our analysis should that the tax rate's in the current bill are so low right now in the bill that we have passed to the point of diminishing returns on what low tax rates can do to address the Black Market. Thus, we propose amendments to prevent Maryland from leaving hundreds of millions of dollars for community reinvestment on the table.

Tax rates around the nation on candidates vary between 15 on the low end to 35 to 40 on the high end. At six percent to 10 percent, Maryland would be extremely low. High tax rates can make cannabis more expensive, but there's no demonstrable evidence that low tax rates themselves can *lower* the cost of cannabis. Other factors numbers dispensary density, weather, and the pre-existing Black Market impact cannabis costs.

Much of the fear around high taxes comes from Oregon and Washington, which in addition to high taxes have unique, 70 year histories of illegal cannabis grows, and California, which is next to Mexico. Their experience is not analogous to our and should not be used to demand low tax rates in Maryland.

CEO of weed maps Chris Beale says it's the density of retail establishments, not the tax rates, it's a critical factor to undermining the black market. He promotes New Mexico model. They're going for a thousand dispensaries, we're currently at 200-400 including the micro business.

Cannabis public policy consulting producer document where they say the optimal tax to undercut the Black Market in Maryland specifically should be twice the current tax rate, stating quote:

*"We recommend between a 15 to 20% tax to maximize rapid shifts to the adult use market".*

They also say that starting at 10 would be the optimal starting point for this strategy. This is our first proposed amendment. We're recommending starting at 10 percent and going up one percent per year to 15. This will not meaningfully increase cannabis costs to consumers. The average



purchase is between 25 and 50 bucks at the dispensary. This would be the difference between a 55\$ bill on a 50\$ purchase unamended versus 57.5 under our highest proposed tax rate of 15%.

This would keep Maryland on the low end of the lowest end of cannabis taxation nationwide. The cannabis public policy consulting paper goes on to state the difference between a 10% tax and a 15% tax on the total percentage of cannabis sales going to the black market is only two percent.

While the Black market impact is minor, the potential impact of revenue is massive. Using the numbers in the fiscal note, over the first five years, Maryland will miss out on up a quarter billion dollars in overall tax revenue and our community reinvestment fund would lose 75 million dollars without our amendment.

We agree that revenue generation should not be the main focus of this bill, so we offer a second prospective amendment. If we keep the tax rate as is, increase the percentage of overall tax revenue to the community reinvestment fund from 30% to 60% This would increase community reinvestment funding from 138 million to 278 million over 5 years.

We ask the committee to consider what would have a bigger impact on the Black market, 2% less sales in the Black market or over 150 Million dollars targeted specifically for investment in the communities most impacted by the War on Drugs?

We understand the frustration with this issue. Why should the one new industry, where we can potentially mint new Black millionaires, be hampered with taxation? We ask you to consider the question from a community perspective. Why is it that on the one shot we have for predictable, consistent funding for community investment in the most desperate communities, Maryland chooses to leave millions of dollars in tax money on the table? We know that getting this right the first time is critical as whatever tax rate is printed in the bill that passes will create an expectation among consumers and businesses, and thus may be hard to change in the future. We ask you to consider these amendments, so we can get this right the first time.

Thank You,





**Revenue Projections (Numbers pulled from Fiscal Note)**

	Unamended		Amended	
	Percentage	Revenue (in millions)	Percentage	Revenue (in millions)
<b>Year 1</b>	6%	\$24	10%	\$40.00
<b>Year 2</b>	7%	\$56.90	11%	\$89.36
<b>Year 3</b>	8%	\$99.40	12%	\$149.11
<b>Year 4</b>	9%	\$146.60	13%	\$211.77
<b>Year 5*</b>	10%	\$162.90	14%	\$228.06
<b>TOTAL</b>	\$489.80		\$718.30	
<b>DIFFERENCE</b>	\$228.50			

\* Assuming year 4 sales in Year 5

**Revenue Projections for Community Reinvestment Fund**

	Unamended		Amended	
	Percentage	Revenue (in millions)	Percentage	Revenue (in millions)
<b>Year 1</b>	6%	\$7.2	10%	\$12.00
<b>Year 2</b>	7%	\$15.40	11%	\$26.80
<b>Year 3</b>	8%	\$26.70	12%	\$44.73
<b>Year 4</b>	9%	\$40.80	13%	\$63.53
<b>Year 5*</b>	10%	\$48.78	14%	\$66.15
<b>TOTAL</b>	\$138.88		\$213.21	
<b>DIFFERENCE</b>	\$74.33			

\* Assuming year 4 sales in Year 5



**Community Reinvestment Fund under 2nd Proposed Amendment**

*(Current tax rate with percent of funding shifted from 30% to 60%)*

<b>Year</b>	<b>Revenue (in millions)</b>
Year 1	\$14.20
Year 2	\$30.80
Year 3	\$53.40
Year 4	\$81.60
Year 5	\$97.74
<b>TOTAL</b>	<b>\$277.74</b>

**Difference - Doubling percentage to Community Reinvestment fund increases overall community reinvestment funding 154 million over unamended current tax structure and increases 69.66 million over overall tax increase (1st proposed amendment) version.**



### Cannabis Taxation Rates in Other States

State	Total Cannabis Taxation Tax Rate
Alaska	14 % to 17%
Arizona	21% to 26%
California	22.25% to 24.25%
Colorado	30%
Connecticut	16% to 26%
Illinois	26% to 34%
Maine	15% to 20%
Massachusetts	17% to 20%
Michigan	16%
Montana	20%
Nevada	18.25% to 20.25%
New Jersey	9% to 20%
New Mexico	17-21% to 22-26%
New York	18% to 23%
Oregon	17% to 20%
Rhode Island	17 to 20%
Vermont	21%
Virginia	25%
Washington	37%



State	Percentage-of-price		Weight-based	Potency-based	General sales tax	
	State	Local			State	Local
Alaska		✓	✓			✓
Arizona	✓				✓	✓
California	✓	✓			✓	✓
Colorado	✓		✓			✓
Connecticut		✓		✓	✓	
Illinois	✓	✓		✓	✓	✓
Maine	✓		✓			
Massachusetts	✓	✓			✓	
Michigan	✓				✓	
Missouri	✓	✓			✓	✓
Montana	✓	✓				
Nevada	✓		✓		✓	✓
New Jersey		✓	✓		✓	
New Mexico	✓				✓	✓
New York	✓	✓		✓		
Oregon	✓	✓				
Rhode Island	✓	✓			✓	
Vermont	✓				✓	✓
Virginia	✓	✓			✓	✓
Washington	✓				✓	✓

Maryland (proposed)    ✓    ✗    ✗    ✗    ✗    ✗

**Note:**

- Maryland proposed 6 to 10%, with no additional (regular) sales or local “piggyback” tax

**Sources:**

- Auxier, R., & Airi, N. (2022). The Pros and Cons of Cannabis Taxes. <https://www.urban.org/policy-centers/cross-center-initiatives/state-and-local-finance-initiative/state-and-local-back-grounders/marijuana-taxes>
- Independent research on average THC potency for potency taxes and average cost of an ounce of cannabis for weight-based taxes.



## Tax Rates Impact on Potential Black Market Sales in Maryland

*Predicted Percentage of Cannabis Market Share That Will Be Illicit*

Number of Dispensaries	Effective Tax Rate	Month of Implementation			Number of Dispensaries	Effective Tax Rate	Month of Implementation			Number of Dispensaries	Effective Tax Rate	Month of Implementation		
		1 - 4	5 - 8	9 - 12			25 - 28	29 - 32	33 - 36			49 - 52	53 - 56	57 - 60
100-250	10%	43%	42%	41%	100-250	10%	38%	37%	36%	100-250	10%	33%	32%	31%
	15%	45%	44%	43%		15%	40%	39%	38%		15%	35%	34%	34%
	20%	47%	46%	46%		20%	42%	42%	41%		20%	38%	37%	36%
	25%	49%	49%	48%		25%	45%	44%	43%		25%	40%	39%	38%
	30%	52%	51%	50%		30%	47%	46%	45%		30%	42%	41%	41%
260-500	10%	38%	37%	36%	260-500	10%	33%	32%	31%	260-500	10%	28%	27%	26%
	15%	40%	39%	38%		15%	35%	34%	33%		15%	30%	29%	29%
	20%	42%	41%	41%		20%	37%	37%	36%		20%	33%	32%	31%
	25%	44%	44%	43%		25%	40%	39%	38%		25%	35%	34%	33%
	30%	47%	46%	45%		30%	42%	41%	40%		30%	37%	36%	36%
500-800	10%	33%	32%	31%	500-800	10%	28%	27%	26%	500-800	10%	23%	22%	21%
	15%	35%	34%	33%		15%	30%	29%	28%		15%	25%	24%	24%
	20%	37%	36%	36%		20%	32%	32%	31%		20%	28%	27%	26%
	25%	39%	39%	38%		25%	35%	34%	33%		25%	30%	29%	28%
	30%	42%	41%	40%		30%	37%	36%	35%		30%	32%	31%	31%

Source: [Cannabis Public Policy Consulting](http://www.cannabispolicyconsulting.com)

**MHC\_SB0516\_Testimony.pdf**

Uploaded by: Levi Sellers

Position: FWA



March 7, 2023

**Senate Finance Committee**

Senator Melony Griffith, Chair

Senator Katherine Klausmeier, Vice Chair

**Subject: Strong Opposition - S.B. 0516 Cannabis Reform, Favorable with Amendments**

Dear Chair Griffith, Vice Chair Klausmeier, and Members of the Committee,

My name is Levi Sellers. I hold a seat on the MD Ag. Commission as a representative of the hemp industry, I am President of the Maryland Hemp Coalition (MHC) and also an owner/operator of my family's farm South Mountain MicroFARM, a state licensed hemp farm located just outside the town of Boonsboro in Washington County.

I am deeply concerned that specific language in this bill will be catastrophic to the Maryland Hemp Industry and could eliminate it completely. Unless amended this same language is in direct conflict with current federal statute and could cause the implementation of the Adult-Use Cannabis Industry to be tied up in unnecessary litigation, further wasting state tax payer dollars and time. While it is the legislatures duty to establish regulations for the adult-use cannabis industry, in response to the passing of the ballot referendum, it is not sensible to make the federally legal hemp industry illegal, while making the federally illegal cannabis industry legal.

SB0516 as written establishes certain arbitrary tetrahydrocannabinol (THC) milligram caps per serving and per package for those that are not licensed through the limited licensing opportunities within the new adult-use cannabis program. It has been stated by the bill sponsors that the intent of these THC milligram caps is to remove "intoxicating" hemp products from the open market. Although well intentioned, this provision also eliminates "non-intoxicating" hemp products from the market, as well as limiting current MD licensed hemp producers to the production of full spectrum products with a potency well below marketable values.

Establishing limits like these on any products containing cannabinoids should be based on science. Given the past prohibition of hemp and cannabis in general, we lack the important research needed to make these science-based determinations. Making these determinations at this point would be arbitrary and based on pure speculation.

Due to the unique differences in individuals (tolerance, body type, and medical conditions, etc.) or bio-individuality, this topic is biologically nuanced. Additionally it should be noted that the ratios of cannabinoids, such as CBD to THC that are typical to full spectrum hemp products are unique and need addressing as such. Please review the attached "Supporting Peer Reviewed Article" that speaks to this point in more detail.

It would be of best interest to both the consumers and hemp industry stakeholders that this provision either be stricken from this bill or amended to reflect federal definitions of hemp found in the 2018 Farm Bill. Supporting this is a panel of the U.S. Court of Appeals for the Ninth Circuit who stated in March of 2022 with a 3-0 ruling, that **"A straightforward reading of § 1639o yields a definition of hemp applicable to all products that are sourced from the cannabis plant, contain no more than 0.3 percent delta-9 THC, and can be called a derivative, extract, cannabinoid, or one of the other enumerated terms"**. The panel goes on to mention that **"this Court will not substitute its own policy judgment for that of Congress."** We ask that this committees decisions reflect the same and amend this provision to reflect the 0.3% Delta-9 THC concentration threshold as stated in the 2018 Farm Bill.

The MHC believes that regulations with regard to proper packaging, labeling, and testing requirements are necessary to ensure consumer safety of all consumable products. To support this, the MHC worked with members of the MD Legislature to develop proposed legislation for this purpose and these provisions can be found in HB1204. HB 1204 establishes standards that have been absent from the marketplace with regard to the regulation of refined hemp and hemp extract products as defined in the bill. The MHC urges this committee to adopt these regulations as amendments to SB0516.

Refined hemp cannabinoids and products have become a significant part of the hemp industry both statewide and nationwide. A PanXchange report highlighted that **75% of all CBD hemp extract produced in the US is used to produce refined hemp products like delta-8 THC**, emphasizing the importance of these products to the success of the hemp industry. Hundreds of small family-owned and minority owned businesses rely on these products, including our farmers who are producing hemp that is being sold to brokers who then sell the raw ingredients to producers of refined hemp cannabinoid products. The economic impact of this industry cannot be overstated. For more information on this specific topic please review the attached report from the Maryland Hemp Industry titled, **"Hemp Industry Stakeholders - Non-Delta-9 THC Regulation Report"**.

Despite the economic benefits of refined hemp cannabinoids, there is still a lack of regulation within the industry, which has allowed bad actors to enter and create subpar products. We do not support these businesses. We do not support the underage sale of these products. We do not support selling products that have not been tested by ISO certified, DEA registered 3rd party laboratories. We do not support any packaging that is not child resistant or is attractive to children and that is why we are requesting the committee for regulation and oversight so that we can stay in business as an industry and operate responsibly. We believe that the Alcohol, Tobacco, Cannabis Commission (ATCC) is the best governing body to regulate the refined hemp cannabinoid industry and could do so by following the language established in HB1204.

The regulation of refined hemp cannabinoids through the ATCC will encourage a more comprehensive approach to the regulation of the cannabis industry in Maryland. It will promote the development of a transparent, and accountable industry that meets the needs of Maryland residents while also providing opportunities for economic growth. Collaboration with the hemp industry will ensure that this process is smooth and beneficial for all parties involved.



We know that many members of this body want to see these types of products sold only through licensed adult use cannabis facilities. This approach has value only if hemp businesses are given a seat at the table in the same way the medical cannabis companies are. Our community of small and minority owned businesses are ready and willing to participate in order to stay in business. Currently, there is **approximately 30% minority participation within the existing Maryland Hemp Industry**. We do not want to be regulated out of the industry that we built and watch the products that we created be given over to the cannabis establishment without a guarantee of participation in that industry. Existing Maryland Hemp businesses are willing to pay a reasonable conversion fee into the cannabis fund and convert our businesses into licensed cannabis facilities in order to be able to remain operational.

If the state chooses to only allow these products to be sold through the Adult Use market and is willing to allow for hemp businesses to convert to cannabis businesses, we can be a resource to the state in many ways. Our farmers and processors can assist with supply issues and our CBD/Hemp specialty shops can help to curb illicit sales from the black market by offering additional points of licensed retail sales. We are well versed in this industry and have the capital and existing investments in infrastructure required to become operational quickly without the need for any state funding. **We believe our industry should be viewed as a valuable resource and potential partners in collaboration.**

A most recent example of this approach was witnessed in the State of New York. New York provided the opportunity for their hemp farmers to begin producing cannabis for their recreational market solving the production to demand concerns, but they stopped short by not providing an adequate number of retail establishments to supply the demand. The illicit market viewed this gap in the supply chain as an opportunity and capitalized. If NY would have considered licensing other segments of their hemp industry including their retail stores and processor/manufacturers, they could have prevented the many unlicensed businesses that popped up across their state and increased the flow of products to consumers while supporting small and minority owned businesses. If the state of Maryland would adopt this concept, we could set a standard that other states could model that truly prioritized social and economic equity as well as safety and security.

**The MHC seeks to enact the licensing, packaging, testing, and labeling recommendations listed in the Maryland Medical Cannabis Commission's legislative report on Hemp-Derived Non-Delta-9-Tetrahydrocannabinol Products.** The Commission's report outlined their concern regarding the "levels of intoxication from unregulated products, ability for youth to access products, lack of standardization across packaging and labeling and testing for product potency and purity, unfounded therapeutic claims, lack of manufacturing best practices and other public health implications." Having taken part, as the MHC representative, in the study group that assisted in developing this report I believe that these concerns are well-founded, and the established regulatory structure in HB 1204 addresses these concerns while increasing consumer safety and eliminating bad actors from the market place

If the Maryland Legislature determines that the regulation of all consumable hemp-derived cannabinoid products are to be regulated by the ATCC, the same regulatory body as cannabis products covered in this bill, it is only reasonable to ask that the MD hemp industry be included within the licensing structure established in this bill, SB0516. A proposal attached below and titled "MDA White Paper on MGA Hemp Bills" was drafted by the MDA to establish the creation of a farm based,

craft cannabis grower's license to coincide with the hemp growers license. This proposal also mentions expanding the number of licenses issued to cannabis growers to allow existing hemp farmers the option to grow cannabis when concentration levels exceed 0.3%.

As with any industry a supply chain is critical to its success. The MD hemp industry is not just the farmers who grow the hemp, but also the processors, manufacturers and specialty retailers selling MD made products. If one link in the chain is removed or forgotten the whole chain becomes weaker. The proposal from the MDA for the "craft" license option does not mention the processors, manufacturers, and specialty retailers. The proposal states that the farms would have the ability to sell their products on the farm direct to consumers, but I know that some do not have the ability to do so. Also, some farms do not have the ability to process or manufacturer their products on farm and rely on the existing MD Hemp Industry supply chain for these services. The inclusion of these operations could be limited in the same way the proposal states existing hemp farmers would and I have provided an attached document that explains how this limitation could be structured.

The proposed "craft" licensing option would provide additional opportunities for the MD hemp industry by diversifying their product offerings, while also allowing for alternative remediation methods currently unavailable to hemp farmers under the existing hemp program. According to data collected from the MDA, **approximately 50% of the total indoor production of hemp and 25% of the total outdoor production of hemp in MD had to be destroyed due to the lack of viable remediation methods.** Hemp products can only be created if hemp farmers are able to sell their product. Current law defines Hemp as the plant Cannabis Sativa L., and any part of that plant, with a Delta-9 THC concentration below 0.3%. Before a producer can sell their hemp product, they must ensure that the THC concentration is below 0.3%. Often, it is difficult for hemp farmers to guarantee their product will be below 0.3% when it is harvested due to variations in genetics and environmental influences.

If a farmer harvests hemp that is above 0.3%, current remediation options are costly for farmers and do not reflect best practices. First, non-compliant hemp can be remediated by separating and destroying non-compliant flowers from the stalks, leaves, and seeds. Second, non-compliant hemp can be remediated through shredding the entire plant and creating what is called "biomass." This biomass may be sold if the THC concentration level is below 0.3%. If neither of these options are viable, which research by the University of Maryland in collaboration with the Maryland Department of Agriculture proved them unsuccessful, the farmer must burn or otherwise destroy their entire field. These remediation tactics can often result in severe financial losses for hemp farmers whose products are too degraded to sell due to the remediation process.

The MHC is grateful to the MDA for their "craft" license proposal and we appreciate their support. We believe that if amended into SB0516 this licensing option would be the answer to support the needs of the MD hemp industry and would, in part, correct the concerning misguided language within the bill.

**History provides adequate evidence that the Hemp Industry has undergone significant damage by the imposition of misguided legislation by rule makers who were subject to powerful special interest groups.** Sadly, this is what we are witnessing today as well. Large cannabis operators in this state, currently licensed as medical cannabis operations, in collaboration with out of state entities are actively working with lobbyists to influence legislation that would effectively shut down the Maryland Hemp Industry to further consolidate the cannabinoid market in their favor. This is evident by the

concerning language in this bill, as well as multiple interviews of cannabis operators published in local papers and personal interactions between hemp industry stakeholders and large cannabis operators.

I have attached, to this letter, the concerning language and amendments to address these issues in a way that is supportive of both the Maryland Hemp Industry and the Maryland Cannabis Industry. Promoting a collaborative venture between Hemp and Cannabis market entities best serves the public and industry stakeholders.

**For these reasons I urge that you oppose Senate Bill 0516 as written and favorable with amendments**, as laid out in the attached document. Thank you for your time and consideration.

Sincerely,

Matthew W. "Levi" Sellers

# Supporting Peer Reviewed Study

[Br J Pharmacol](#). 2015 Oct; 172(20): 4790–4805.

Published online 2015 Oct 13. doi: [10.1111/bph.13250](https://doi.org/10.1111/bph.13250)

PMCID: PMC4621983

PMID: [26218440](https://pubmed.ncbi.nlm.nih.gov/26218440/)

## Cannabidiol is a negative allosteric modulator of the cannabinoid CB<sub>1</sub> receptor

[R B Laprairie](#),<sup>1</sup> [A M Bagher](#),<sup>1</sup> [M E M Kelly](#),<sup>1,2</sup> and [E M Denovan-Wright](#)

<sup>1</sup>

[Author information](#) [Article notes](#) [Copyright and License information](#)  
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### Abstract

#### Background and Purpose

Cannabidiol has been reported to act as an antagonist at cannabinoid CB<sub>1</sub> receptors. We hypothesized that cannabidiol would inhibit cannabinoid agonist activity through negative allosteric modulation of CB<sub>1</sub> receptors.

#### Conclusions

In conclusion, this *in vitro* study was the first characterization of the NAM activity of the well-known phytocannabinoid CBD. The data presented here support the hypothesis that CBD binds to a distinct, allosteric site on CB<sub>1</sub> receptors that is functionally distinct from the

orthosteric site for 2-AG and THC. Using an operational model of allosteric modulation to fit the data (Keov *et al.*, [2011](#)), we observed that CBD reduced the potency and efficacy of THC and 2-AG at concentrations lower than the predicted affinity of CBD for the orthosteric site of CB<sub>1</sub> receptors. Future *in vivo* studies should test whether the NAM activity of CBD explains the ‘antagonist of agonists’ effects reported elsewhere (Thomas *et al.*, [2007](#)). Indeed, the NAM activity of CBD may explain its utility as an antipsychotic, anti-epileptic and antidepressant. In conclusion, the identification of CBD as a CB<sub>1</sub> receptor NAM provides new insights into the compound's medicinal value and may be useful in the development of novel, CB<sub>1</sub> receptor-selective synthetic allosteric modulators or drug combinations.

# Hemp Industry Amendment Requests

This document was created through a collaborative effort by the Maryland Farm Bureau, Maryland Hemp Coalition and the Maryland Healthy Alternatives Association. **Our Associations suggest that a cooperative venture between the Hemp and Cannabis market entities be promoted.** Such an approach would best serve the public and industry stakeholders. Provided language below is to assist with establishing a foundation for this effort. Below are amendments to SB0516. Our requests for amendments and additions are in **RED-BOLD** font.

## Amendments to Cannabis Reform Bill- SB0516

### Amendments

36-1103.

• AMEND Page 69, lines 23-27: **(A) (1) A PERSON MAY NOT SELL OR DISTRIBUTE A PRODUCT INTENDED FOR HUMAN CONSUMPTION OR INHALATION THAT CONTAINS MORE THAN 0.5 MILLIGRAMS OF TETRAHYDROCANNABINOL PER SERVING OR 2.5 MILLIGRAMS OF TETRAHYDROCANNABINOL 0.3% DELTA-9- TETRAHYDROCANNABINOL ON A DRY WEIGHT BASIS...**

- **NOTE:** The following language criminalizes federally legal hemp CBD products. Products that comply with the 0.3% delta-9-THC limits are criminalized by this clause. This would effectively kill the Full Spec Hemp CBD Industry.
- **NOTE:** Supporting this is a panel of the U.S. Court of Appeals for the Ninth Circuit who stated in March of 2022 with a 3-0 ruling, that “A straightforward reading of § 1639o yields a definition of hemp applicable to all products that are sourced from the cannabis plant, contain no

more than 0.3 percent delta-9 THC, and can be called a derivative, extract, cannabinoid, or one of the other enumerated terms”

• STRIKE OUT Page 70, lines 8-10: ~~**(B) A PERSON MAY NOT SELL OR DISTRIBUTE A CANNABINOID PRODUCT THAT IS NOT DERIVED FROM NATURALLY OCCURRING BIOLOGICALLY ACTIVE CHEMICAL CONSTITUENTS.**~~

- **NOTE:** Supporting this is a panel of the U.S. Court of Appeals for the Ninth Circuit who stated in March of 2022 with a 3-0 ruling, that “the source of the product - **not the method of manufacture** - is the dispositive factor for ascertaining whether a product is synthetic”
- **NOTE:** We have a model for regulation of these products that incorporates the MMCC recommendations. **SEE REFINED HEMP PRODUCT REGS DOCUMENT.**
- **NOTE:** It is well known in both the hemp industry as well as the medical/adult-use cannabis industry that not all cannabinoids, in the plant *Cannabis sativa* L., can be isolated or tested for, using current technology and testing standards, to determine if said cannabinoids are naturally occurring or not. There are approximately 160 known naturally occurring cannabinoids, but independent testing laboratories can only test for up to 24 cannabinoids. That means **only 13% of the known naturally occurring cannabinoids can be tested for using current technology and testing standards.**

# Refined Hemp Product Regs

This document was created through a collaborative effort by the Maryland Hemp Coalition, the Maryland Healthy Alternatives Association and incorporates results from the Maryland Medical Cannabis Commission summer study report mandated by Chapter 511/512 of the acts of 2022. **Our Associations suggest that a cooperative venture between the Hemp and Cannabis market entities be promoted.** Such an approach would best serve the public and industry stakeholders. Provided language below is to assist with establishing a foundation for this effort. Our requests for amendments and additions are in **RED-BOLD** font.

## AMEND SB0516

1-303.

- Page 6, lines 16-17: **TWO SHALL BE KNOWLEDGEABLE AND EXPERIENCED IN THE CANNABIS INDUSTRY; AND TWO SHALL BE KNOWLEDGEABLE AND EXPERIENCED IN THE HEMP INDUSTRY**

1-309.2.

- Page 14, line 2: **ADD - (VI) THREE REPRESENTATIVES FROM THE HEMP INDUSTRY;**
- Page 14, line 3: ~~(VI)~~ **(VII)**
- Page 14, line 6: ~~(VII)~~ **(VIII)**
- Page 14, line 3: ~~(VII)~~ **(IX)**

## **ADDITIONS** (to appropriate sections)

## **DEFINITIONS**

(a) “Acceptable hemp thc level” means a delta-9-tetrahydrocannabinol concentration of less than 0.3%.

(b) “Commission” means the same as defined in 1-101. Article- Alcoholic Beverages (as defined in HB0556)



**(c) “Contaminants unsafe for human consumption” means any microbe, fungus, yeast, mildew, herbicide, pesticide, fungicide, residual solvent, heavy metal, or other contaminant found in an amount that exceeds the acceptable limitations established under State law or regulation.**

**(d) “Distribute” means to sell or hold for future sale, offer for sale, barter, or otherwise supply to a consumer.**

**(e) (1) “Hemp Extract Product” means a hemp product intended for consumption.**

**(2) “Hemp Extract Product” includes a hemp product intended for consumption that is manufactured or distributed in the State or for interstate commerce that is:**

**(i) produced, stored, transported, or processed in a facility bonded in accordance with this subtitle; and**

**(ii) labeled with a brand name and descriptors including flavor, size or volume, and specific cannabinoid content.**

**(f) (1) “Refined hemp” means a derivative of hemp in which a cannabinoid other than delta-9-tetrahydrocannabinol, or an isomer derived from such a cannabinoid, is found in a concentration greater than 0.3%.**

**(2) “Refined hemp” does not include:**

**(i) Cannabidiol (CBD);**

**(ii) Cannabidivarin (CBDV);**

**(iii) Cannabichromene (CBC);**

**(iv) Cannabichromivarin (CBCV);**

**(v) Cannabigerivarin (CBGV);**

**(vi) Cannabigerol (CBG);**

**(vii) Cannabinol (CBN);**

**(viii) Delta-9-Tetrahydrocannabinol ( $\Delta^9$  - THC);**

- (ix) Tetrahydrocannabivarin (THCV); and
- (x) Their acidic forms, including but not limited to cannabidiolic acid, Cannabigerolic acid and tetrahydrocannabinolic acid.

## **TESTING REQUIREMENTS**

- (a) A person shall receive a certificate of analysis prepared by an independent testing laboratory prior to distributing refined hemp or a hemp extract product.
- (b) The certificate of analysis required under subsection (a) of this section shall state that the:
  - (1) refined hemp or hemp extract product is a product of a batch tested by the independent testing laboratory;
  - (2) batch tested contains an acceptable hemp THC level after testing a random sample of the batch; and
  - (3) batch does not contain contaminants unsafe for human consumption.
- (c) The Commission may conduct an analysis of a sample of refined hemp or a hemp extract product and the associated label to ensure the product:
  - subtitle;
  - (1) meets the label requirements established under § 14–303.2 of this subtitle;
  - (2) contains an acceptable THC level;
  - (3) has not been tampered with or misbranded; and
  - (4) meets all other requirements established under this subtitle.

## **ADD LABELING REQUIREMENTS**

- (a) The Commission shall establish minimum packaging and labeling requirements for refined hemp and hemp extract products.

**(b) The packaging required under subsection (a) of this section shall:**

- (1) be clear, legible, and printed in English;**
- (2) include a warning statement governing safe use and secure storage of the product that includes:**
  - (i) the intended serving size;**
  - (ii) a warning to not operate a motor vehicle while under the influence;**
  - (iii) a warning to not use the product while nursing or pregnancy warning;**
  - (iv) an advisory to keep out of reach of children and pets; and**
  - (v) a warning that the use of product make cause a positive THC result on a toxicology screening;**
- (3) include a primary label that:**
  - (i) contains the generic or common name of the product**
  - (ii) specifies whether the product contains CBD or THC or both; and**
  - (iii) the net weight or volume of the contents of the product in United States customary units and metric units in accordance with § 11–301 of this Article;**
- (4) include an information label that:**
  - (i) contains the name and contact information of the manufacturer or distributor;**
  - (ii) contains the date the product was manufactured or packaged;**
  - (iii) the batch or lot number for the product;**
  - (iv) instructs the consumer on how to use and prepare the product;**

**(v) lists THC, other cannabinoid ingredients or additives, and non-cannabinoid ingredients in the product in descending order by weight or volume;**

**(vi) lists any potential allergens;**

**(vii) contains an expiration date and refrigeration instructions; and**

**(viii) lists the sodium, sugar, carbohydrate, and fat content per serving, if applicable; and**

**(5) a certificate of analysis displaying the laboratory test results of the product.**

**(c) Refined hemp or a hemp extract product packaging may not:**

**(1) be labeled as a product grown in the State unless at least 51% of the hemp used in the product was grown in the State;**

**(2) be targeted at minors, including the use of cartoons, popular images used to advertise to children, or designs substantially resembling ones associated with any commercial product sold to minors;**

**(3) include false or misleading information, including unproven or unverifiable statements;**

**(4) include the word “organic” unless the product is certified as organic in accordance with the National Organic Program administered by the United States Department of Agriculture; or**

**(5) include disease or drug claims that are not approved by the United States Food and Drug Administration.**



# Maryland Department of Agriculture

Office of the Secretary

Wes Moore, Governor

Aruna Miller, Lt. Governor

Kevin Atticks, Acting Secretary

Steven A. Connelly, Deputy Secretary

Agriculture | Maryland's Leading  
Industry

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## Maryland Department of Agriculture

### White Paper on MGA Hemp Bills

**Date: February 28, 2023**

**BILL NUMBER:** SENATE BILL 508, HOUSE BILL 1067, HOUSE BILL 1204

**SHORT TITLE:** USE OF HEMP AND HEMP PRODUCTS IN CONSUMABLE PRODUCTS/ HEMP FARMING PROGRAM - REFINED HEMP

**MDA POSITION:** INFORMATION

---

The Maryland Department of Agriculture (MDA) has identified the following concerns with SB 508, HB 1067, and HB 1204 that would cause the MDA to be out of compliance with 2018 Farm Bill regulations and jeopardize USDA funding for the Hemp Farm Program. Each of these were outlined in detail in Letters of Information that were sent to the respective committees of E&T and EEE.

- Altering the definition of hemp to include a plant, or any part of a plant with Delta 9-Tetrahydrocannabinol (THC) concentration that does not exceed 1% on a dry weight basis.
- Allowing hemp products with a THC concentration greater than 1% to be included in consumable products for sale.
- Specifying that a person transporting hemp that exceeds a certain concentration of delta-9-tetrahydrocannabinol is not in violation of the Hemp Farming Program.

#### Recommendations from MDA:

- Amend HB 1204 to establish the creation of a farm based, craft cannabis grower's license to coincide with the hemp growers license.
  - A limited number of these licenses could be issued, allowing existing hemp growers to have an alternative to remediation when the concentration of the product exceeds .3% - 1%. The General Assembly can adjust those percentages if so desired.
  - Propose a limit on how much can be grown and sold on the farm.
- Expand the number of licenses issued to cannabis growers to allow existing hemp farmers the option to grow cannabis when concentration levels exceed .3%
- Members of the General Assembly would benefit from advocating for changes of the definitions of hemp and cannabis, lifting restrictions that require remediation, and the

transportation and sale of consumables to the Maryland Congressional Delegation.

- MDA will communicate the need for changes to the above regulations to the Maryland Congressional Delegation.
- MDA will confer with other states that have legislation similar to the proposed legislation and make further recommendations.

If you have additional questions, please contact Rachel Jones, MDA Director of Government Relations at [Rachel.Jones2@maryland.gov](mailto:Rachel.Jones2@maryland.gov) or (667) 408-0134.

# **Non-Delta-9 THC Report.pdf**

Uploaded by: Levi Sellers

Position: FWA



## **COLLABORATIVE WHITE PAPER**

### **HEMP INDUSTRY STAKEHOLDERS**

# **NON-DELTA 9 THC REGULATION REPORT**

By Levi Sellers

#### **CONTRIBUTORS:**

Nicholas Patrick

Daniel Simmonds

Elly Cowan



# Acknowledgements

We would like to thank all of those that made this report possible.

First, appreciation should be given to Honorable Representative Pena-Melnyk, Honorable Senator Feldman, as well as the members of their committees that amended to a study concerning proposed 2022 legislation, which could have negatively impacted the Maryland Hemp Industry including many small and minority-owned businesses.

This white paper draws from several sources that we wish to explicitly acknowledge. The participating authors of this document are active hemp-industry stakeholders or currently working with the hemp industry and are well informed on the matters discussed in this document.

Levi Sellers- President of the Maryland Hemp Coalition, Maryland Agricultural Commission Hemp Representative, Manager of South Mountain MicroFARM - a licensed hemp producer

Nicholas Patrick - Vice President of the Maryland Healthy Alternatives Association and the owner of Embrace CBD Wellness Centers

Daniel Simmonds- President of the Maryland Healthy Alternatives Associations and co-owner of Georgetown Hemp

Elly Cowan- Principal at Compass Government Relations Partners

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# EXECUTIVE SUMMARY

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It has been the current trend of Big Cannabis to propose, both publicly and privately to key decision makers, that the Delta 8 marketplace be relegated to their purview, and that the very long well established Hemp industry be excluded, or eradicated.

To the contrary this white paper suggests that a cooperative venture between the Hemp and Cannabis market entities be promoted. Such an approach would best serve the public and industry stakeholders.

- 1. History provides adequate evidence that the Hemp industry has undergone significant damage by the imposition of misguided legislation by rule makers who were subject to powerful special interest groups.**
- 2. We are highly concerned that the dismantling of the Hemp infrastructure in Maryland will have a further negatively disproportionate effect on the minority stakeholders.**
- 3. Signs of bias throughout the study was partial to a particularly desired outcome.**
- 4. The Maryland hemp industry and hemp industry stakeholders agree that meaningful legislation and appropriate regulations are needed to ensure consumer safety.**

**“In order to achieve the full social, environmental and economic potentials of hemp, we must protect and promote both its therapeutic potentials and industrial potentials.”**

**— Levi Sellers —  
President,  
Maryland Hemp Coalition**

# INTRODUCTION

---

Written in collaboration by both the Maryland Hemp Coalition and Maryland Healthy Alternatives Association, on behalf of the Maryland Hemp Industry, this white paper aims to clearly provide our input with regard to the report mandated by Chapter 511/512 of the acts of 2022. These acts tasked the Natalie M. LaPrade Medical Cannabis Commission (MMCC), in consultation with the State Department of Agriculture and representatives of the Maryland Hemp Coalition and the Maryland Healthy Alternatives Association to study and make recommendations on the classification and regulation of tetrahydrocannabinols, other than delta-9-tetrahydrocannabinol, that are artificially, synthetically, or naturally derived, and manufactured products containing delta-8 and delta-10-tetrahydrocannabinol.

Our purpose in this report is to:

- Provide clarity to many misconceptions and misinformation surrounding the topic of Delta-8, Delta-10 and other Tetrahydrocannabinol (THC) isomers.
- Express concerns with respect to the process employed by the study group lead by the MMCC.
- Recommend meaningful legislation and appropriate regulations that are needed to ensure consumer safety with regard to these hemp-derived cannabinoids and products.
- Promote concepts that the Maryland Legislature could utilize to help avert significant unintended consequences from well-intended regulations that could easily terminate the Maryland Hemp growers as well as those in adjacent states.

**The Hemp Industry is taking steps to ensure consumer safety with regard to hemp-derived products and in most cases, going above and beyond the current laws and regulations.**

# THE HISTORY OF HEMP AND HEMP-DERIVED PRODUCTS

---

Historically, Hemp has been a significant product of the early Americas.

“Until 1883, 90% of all paper in the world was made with hemp fiber. This included paper money, news print, maps, stocks, bonds and books. The first draft of the Declaration of Independence was written on Dutch hemp paper and the second draft was completed on July 2, 1776.”<sup>1</sup>

Before the disruptive regulation of 1937, Hemp’s traditional medical uses have been known for over 8,000 years. Hemp products were pervasive in North America in the 17th century, and derivatives commonly used in medicinal preparations labeled as “Hemp” until regulation effectively banned production.

The Marihuana Tax Act of 1937, Pub.L. 75–238, 50 Stat. 551, enacted August 2, 1937, was a United States Act that taxed cannabis, and promulgated restrictions on its growth, possession and use. **History shows that the legislation was proposed and rapidly pushed through Congress by a few highly influential business leaders who represented the powerful special interest groups in competing industries.** Even the American Medical Association attempted to reverse the legislation once they realized that the legislature purposely used the name ‘Marihuana’ in place of Hemp to hide the actual reason for removing Hemp from the marketplace.<sup>2</sup>

The prohibition act lasted 81 years and disrupted the growth by many farmers who depended on this cash crop. Historical evidence of the importance of Hemp is shown by the action in 1943 when a Federal program (Hemp for Victory) encouraged the growth of over one million acres of Hemp for the war effort. The Controlled Substances Act of 1970, repealed the 1937 law, but operationally banned the production of industrial hemp because the DEA refused to issue tax stamps.

**History provides adequate evidence that the Hemp industry has undergone significant damage by the imposition of misguided legislation by rule makers who were subject to powerful special interest groups.**<sup>3</sup>

It wasn't until February 7, 2014, when then President Obama signed the Farm Bill of 2013 into law. Section 7606 of the act, Legitimacy of Industrial Hemp Research, defined industrial hemp as distinct from marijuana and authorized institutions of higher education or state department's of agriculture in states that legalized hemp cultivation to regulate and conduct research and pilot programs. The U.S. House passed the hemp amendment to the Farm Bill in order to allow pilot programs and research to begin on industrial hemp and determine whether hemp farming would be beneficial for American farmers and businesses.

On December 20, 2018, then President Trump signed into law the Agricultural Improvement Act of 2018. Most people refer to the legislation as the 2018 Farm Bill and the enacted bill is P.L. 115-334. This legislation allows USDA to carry out its vital mission of serving rural America, creating jobs, and providing a safety net for Americans in need.

**Hemp farming exploded after the 2018 Farm Bill passed** and was signed into law. Over the first year, licensed hemp acreage increased more than 445%, according to the advocacy and research group Vote Hemp. More than 510,000 acres of hemp were licensed in 2019, versus about 112,000 acres in 2018. **This "green rush" led to a national surplus of hemp biomass, used for the extraction of Cannabidiol (CBD), negatively impacting the market value.**

In a short period of time, from April 2019 to October 2019, the wholesale value of hemp CBD biomass decreased by 53% according to a report by Hemp Benchmarks. At its peak there were approximately 201 million pounds of excess hemp biomass in the U.S. marketplace and in excess of 1.6 million kilos of processed cannabinoids. <sup>4</sup>

**Amid the drastically diminished fortunes of the CBD sector, producers became innovative and turned to further refined or converted products, beyond the original CBD content.** These products included gummies, vapes and other derivative products containing minor cannabinoids such as CBG and CBN, as well as products containing other forms of THC beyond the traditional THC delta-9 such as delta-8, delta-9, delta-10 and further refined products, such as HHC.

By 2022, PanXchange estimated that at least **75% of all hemp extract is going into production of delta-8 products** and other hemp-derived cannabinoid products. Through

this innovation we are now seeing the market value of hemp CBD biomass begin to rebound providing much needed economic relief to the agricultural community.

**“Innovation is the ability to see change  
as an opportunity- not a threat.”  
— Steve Jobs —**

## **WHAT ARE HEMP-DERIVED CANNABINOIDS?**

---

Most hemp-derived cannabinoids and products have a lower psychotropic potency when compared to delta-9 THC. **According to the CDC delta-8 THC is estimated to be about 50-75% as psychoactive as delta-9THC.**

Delta-8 THC is one of the hundreds of cannabinoids naturally found in hemp and cannabis. However, it appears in such small doses that processors can't efficiently extract it, at commercial scale, directly from the plant. Instead, they must convert other cannabinoids, like hemp-derived CBD, into Delta-8 THC using more efficient solvent-based synthesis methods called “isomerization”, which is the transformation of a molecule into a different isomer.

A common misconception of hemp-derived cannabinoids is that they are “synthetic”, due to the manufacturing processes performed in a laboratory. This argument was rejected by a three-judge panel of the Ninth Circuit stating, **“the source of the product — not the method of manufacture — is the dispositive factor for ascertaining whether a product is synthetic.”**

This isomerization process is similar to methods used to produce well-known and existing products in the free market. Like vitamin supplements which can be derived from natural

plant/animal sources or also more efficiently derived from a process of isomerization. For example, both Vitamin A and Vitamin C can either be derived from a natural source, fish liver oil or citrus fruits, or more efficiently isomerized from acetone or keto acid. These isomerized vitamins have regulations in place to ensure consumer safety, as we all can agree that hemp-derived products should as well.

## HEMP AND CANNABIS: WHAT'S THE DIFFERENCE?

---

Hemp and Cannabis have a long history that is, by nature, intertwined and somewhat complex. The bottom line is that they are of the same plant species, known as *Cannabis Sativa L.*

In order to provide a standard to clarify the difference between Hemp and Cannabis the 115th US Congress enacted the legislation most commonly referred to as the 2018 Farm Bill. This legislation acted upon this in two ways:

1. Defined Hemp as:

“the plant *Cannabis sativa L.* and **any part of the plant**, including the seeds thereof **and all derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers, whether growing or not, with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent** on a dry weight basis” [7 U.S.C. 1639o(1)]

This definition establishes a delta-9 THC threshold to distinguish the difference between hemp and cannabis.

2. Amended the Control Substance Act (CSA) in two ways:

- A. CSA definition of “marihuana” to **exclude hemp** as defined; and



B. **All Tetrahydrocannabinols in hemp were removed** from the CSA's definition of "tetrahydrocannabinols"

- ▶ "Tetrahydrocannabinols, except for tetrahydrocannabinols in hemp (as defined under section 297A of the Agricultural Marketing Act of 1946.

These actions exhibit a **clear intent by Congress to establish a difference between "hemp" and "marijuana" or cannabis**, while providing the American agricultural community, consisting of multi-generational family farms and small businesses, a new cash crop to incorporate into their toolbox of crop rotations.

A patch work of state laws and regulations allow for Cannabis, above the 0.3 percent delta-9 THC threshold, to be sold as "medical" or "adult-use/recreational" cannabis. Dominated by large corporate or multi-state operators (MSO), also known as "Big Cannabis" and **influenced by the entry of big capital from the Canadian public markets, the cannabis industry has become difficult for small local businesses to enter or maintain market share.**

The barriers to entry into the cannabis industry made it nearly impossible for traditional small business owners to be able to participate in it. As a result, many of these entrepreneurs with knowledge of this plant and strong passion to build a business in cannabis had no choice but to turn their attention toward the hemp industry.

## LEGAL OR LOOPHOLE?

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**The exclusion of all tetrahydrocannabinols in hemp from the CSA, by the actions of the 2018 Farm Bill, should eliminate any question of the legality surrounding the hemp-derived cannabinoids and products** (delta-8, delta-10, and other THC isomers) reviewed in this study. Unfortunately, the adjacent medical and adult-use cannabis industry, with conflicting economic interests, continues to spread a misconception that the hemp industry is marketing these products through a "loophole" in federal law.

**There is nothing within the 2018 Farm Bill that prohibits deriving Delta 8 or other THC isomers from hemp and enhancing the products with the compounds.** <sup>5</sup> Supporting this is a panel of the U.S. Court of Appeals for the Ninth Circuit who stated in March 2022 in a 3-0 ruling, “this Court will not substitute its own policy judgment for that of Congress.” <sup>6</sup> We believe the Maryland study group outcome and subsequent regulatory actions should reflect the same.

## MISINFORMATION AND MISCONCEPTIONS

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Lobbying efforts by well funded **Cannabis Industry MSO’s are spreading fear** through misinformation and misconceptions with regard to hemp-derived cannabinoid products. These are easily dispelled with logical thinking, reasonable regulation and facts.

### NOT NATURALLY OCCURRING...

Most hemp-derived cannabinoids are identified as naturally occurring, but are only present in the hemp plant in trace amounts. A process of isomerization is used to efficiently produce commercially viable quantities of these cannabinoids with potentially therapeutic values, according to existing research.

It is well known in both the hemp industry as well as the medical/adult-use cannabis industry that **not all cannabinoids, in the plant Cannabis sativa L., can be isolated or tested** for, using current technology and testing standards, to determine if said cannabinoids are naturally occurring or not.

### TOXIC SOLVENTS AND HEAVY METAL REMNANTS...

Typically, the isomerization process performed in laboratories to manufacture certain hemp-derived cannabinoids involves a bit of chemistry. **With chemistry the use of corrosive or toxic chemicals, as solvents/reagents and catalysts, is not foreign** and can be dangerous, if not performed by professionals. These chemicals are removed and the final derivative is purified.

To ensure that reagents and catalysts are removed from the final product, testing services by DEA certified and accredited third-party testing laboratories like KCA in Kentucky or ACS in Florida are employed. Full panel Certificates of Analysis (COA) are provided at the completion of testing, ensuring potency and purity.

## HEMP IS NOT INTOXICATING...

As reported by the consumers and documented research hemp-derived cannabinoids are not as intoxicating as the products available by the medical and adult-use cannabis industry. This is the reason why there is a growing demand for these products over those produced by the medical and adult-use cannabis industry.

**Look at hemp and delta-8 through the lens of other agricultural and value-added products on the market.** Wine is produced using a mechanical and chemical process to convert grapes, an agricultural crop without intoxicating effects, into a value-added product that can produce intoxicating effects. Hemp-derived products, like delta-8 THC, are produced using a mechanical and chemical process to convert hemp, an agricultural crop without intoxicating effects, into a value-added product that can produce intoxicating effects. The two do not appear that different in this context.

**There is nothing within the 2018 Farm Bill that prohibits potentially intoxicating cannabinoids like Delta 8 or other THC isomers from hemp and enhancing the products with the compounds.**<sup>5</sup> Supporting this again is a panel of the U.S. Court of Appeals for the Ninth Circuit who stated in March 2022 in a 3-0 ruling, “this Court will not substitute its own policy judgment for that of Congress.”<sup>6</sup> We believe the Maryland study group outcome and subsequent regulatory actions should reflect the same.

## IMPROPER LABELING...

We agree with and fully support and promote the need of qualitative laboratory analysis and adoption of standardized manufacturing processes. Although, without standardization of testing a hemp-derived product can test at a different potency from lab to lab. This concern is not unique to hemp-derived products. **Multiple**

**class action lawsuits have been filed, nationally, within the highly regulated medical and adult-use cannabis industries.** These lawsuits have made claims that state licensed cannabis producers are paying laboratories to falsely inflate cannabinoid concentrations, in order to sell their products at a higher value.

A critical public health component that must be implemented across the two separate industries is the standardization of testing and measurement processes for Cannabis and Hemp products that are currently absent.

**We strongly encourage state and Federal regulators to take a leadership position in developing and promulgation of laboratory standards and practices.**

## BIAS IN THE STUDY

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The study group, established by SB0788/HB1078 during the 2022 legislative session in response to the outcry by Maryland Hemp Industry stakeholders and supporters, exhibited **signs of bias since its start and throughout its completion.** An agenda was created without hemp industry input, provided to hemp industry representation only days prior to the study's first day, and a survey/questionnaire was provided to study participants with a predetermined result. Also, the limited multiple choice options did not provide options that accurately reflected the hemp industry's perspective. Some additional concerns with respect to the process employed by this study group are listed below.

The Maryland Hemp Coalition exists "to cultivate a robust and thriving hemp industry in Maryland" and the Maryland Healthy Alternatives Association is "dedicated to ensuring that every Marylander has access to healthy alternatives to big-pharma's products". We firmly believe our input on this topic, in regards to the hemp-derived products under review in the study, is of utmost importance. The products under review were created by the hemp industry in response to the health and wellness market demand of our communities.

The first concern was the lack of involvement or correspondence with the designated representatives for Maryland’s hemp industry. In a letter dated January 13, 2022 from Will Tilburg addressed to the Maryland legislature, his plea for the study group included a concern of a “potential public health crisis”. It is vital to a study of this magnitude to consult and include the hemp industry itself for input on how to handle such an important matter. Therefore, it became even more apparent that the subsequent survey received without the hemp industry’s input, was **partial to a particularly desired outcome** by those involved in crafting said survey.

Secondly, **only about 27% of the parties chosen to participate in the study group have a direct involvement with the hemp industry**. The remaining parties have a direct involvement with the medical/adult-use cannabis industry. With this point alone any outcome from the study will be skewed in favor of the medical/adult-use cannabis industry.

Thirdly, it appears that even as a participant in the study, **the hemp industry was not treated as a participant but more like an invited witness**. An agenda was previously created for the “first meeting” without hemp industry input. And, as previously stated, the development of the “Chapter 511/512 Feedback Form” survey questionnaire which was sent to members of the study group, was also compiled without the hemp industry input.

After review of the aforementioned “feedback form” or survey, **it was apparent that there was an intentional outcome that was not in the best interest of the hemp industry**, hemp industry stakeholders, or the consumers that rely on the access of these products in a free and legal market. For example, the survey included a spreadsheet attachment that requested suggestions for predetermined THC limits that the respondent thinks “would create the best regulatory framework”. There is no flexibility built into this question with respect to scientific methods or consideration of bio-chemical ratios between CBD and THC, which can greatly reduce any risk of psychotropic responses in humans.

Furthermore, the **survey was flawed**. For example, this same question offered a limited range of THC from which to choose, between 0.0mg and 30.0 mg, but, the options available upon responding only went up to 25 mg. These are just a few instances where

**limitations had been set on the respondent and a pre-determined outcome was suggested.**

Establishing limits like these on any products containing cannabinoids should be based on science. Given the past prohibition of hemp and cannabis in general, we lack the important research needed to make these science-based determinations. Making these determinations at this point would be pure speculation.

Due to the unique differences in individuals (tolerance, body type, and medical conditions, etc.) or bio-individuality, this topic is biologically nuanced. Additionally it should be noted that the ratios of cannabinoids to THC that are typical to hemp products are unique and need addressing as such. These facts should have been incorporated into the survey.

The survey also requested the respondent to choose from a list of compounds (developed in part from Dr. Chad Johnson from the University of Maryland School of Pharmacy) which should be considered when determining the tetrahydrocannabinol (THC) content of a product. However, the **congressional intent was clear** on this point through the actions made in the 2018 Farm Bill and the amendments made to the Controlled Substance Act by the Agricultural Improvement Act of 2018 - Delta-9 THC was intended to be limited, not other THC isomers.

Several other questions throughout the survey requested input on the level of regulation of hemp-derived products, when compared to similar cannabis-based products. While also requesting input specifically on “products containing other isomers or derivatives of THC that are not naturally occurring in the hemp plant”. It is well known in both the hemp industry as well as the medical/adult-use cannabis industry that not all cannabinoids, in the plant *Cannabis sativa L.*, can be isolated or tested for using current technology and testing standards, to determine if said cannabinoids are naturally occurring or not. Another point highlighting that these **predetermined responses were not developed with a scientific approach.**

**Due to the discriminating nature of the pre-selected survey questions and response, the hemp industry was unable to provide clear input and feedback** through the

“Chapter 511/512 Feedback Form”. Instead a letter was submitted emphasizing these concerns.

## APPROPRIATE REGULATIONS

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It has been the current trend of Big Cannabis to propose, both publicly and privately to key decision makers, that the Delta 8 marketplace be relegated to their purview, and that the very long well established Hemp industry be excluded, or eradicated.

**We are concerned for all parties that well-intended but misguided actions that damage the long-term traditional Hemp market by legislation or regulation could clearly be considered in restraint of trade.** Such actions could result in costly and disruptive legal action among all parties, with serious unintended consequences for the public.

The Maryland hemp industry and hemp industry stakeholders agree that meaningful legislation and appropriate regulations are needed to ensure consumer safety. A plan has been drafted by vested parties in the Maryland hemp industry with goals such as:

- Create hemp representation within the Advisory Board of the Alcohol, Tobacco, and Cannabis Commission to provide advice and expertise with respect to plans, policies, and procedures applicable to the regulation of the production and sale of hemp derived products. Allowing for the Commission to establish regulatory control over these products. **(See Appendix A)**
- Define or redefine specific terms that allow for a clarified understanding of hemp extracts, hemp extract products, and hemp-derived cannabinoids or refined hemp products.
- Establish guidelines, standards and regulation for hemp extract and refined hemp products. **(See appendix B)**

- Align with neighboring states to encourage interstate commerce while bolstering the regional economy and the developing hemp industry

Both West Virginia and Florida are already utilizing a similar model as proposed above.

**We believe this type of regulatory structure works for both promoting consumer safety, while also cultivating a thriving hemp industry adjacent to the medical or adult-use cannabis industry.**

## SOCIAL AND ECONOMIC EQUITY

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The barriers to entry into the medical cannabis industry made it nearly impossible for traditional small business owners to be able to participate in it. As a result, many of these entrepreneurs with knowledge of this plant and strong passion to build a business in cannabis had no choice but to turn their attention toward the hemp industry.

In a Baltimore Sun article, **Hope Wiseman, owner of Mary & Main dispensary**, stated that **“it would take millions of dollars for someone to break into today’s tightly regulated [Cannabis] market,”** but said, **“...she knows folks of color who are building businesses around delta-8.”**<sup>7</sup>

The stinging lack of diversity in the initial Maryland medical cannabis license process has been highlighted by claims of racial, ethnic and gender disparity resulting in extensive press coverage and legal actions.

**Only 10% of MMCC’s program investors are minorities**, according to a recent study. In an attempt to achieve some level of parity the MMCC opened licensing in 2019, but the effort has been mired in litigation and investigations.<sup>8</sup> To the contrary, **25% of all licensed hemp producers are minority owned, and nearly 30% of all Hemp/CBD**



**specialty retail stores identify as “Black Owned”.** This percentage is greater than the state’s Black population which according to the 2020 U.S. Census data consists of 29% of the total population.

We are highly concerned that the dismantling of the Hemp infrastructure in Maryland will have a further negatively disproportionate effect on the minority stakeholders who could not achieve Cannabis licensure.

In Maryland, Hemp producers are essentially traditional outdoor farmers, not highly evolved and vertically integrated technical growers of the Cannabis trade. Moving hemp-derived products under the Cannabis licensing process would be the **equivalent of the effective elimination of small farmsteads in lieu of massive agricultural conglomerates.**

## LOCAL AND NATIONAL IMPACT

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Maryland has a strong hemp industry. This adjacent industry already includes many female-owned, Black-owned, and minority-owned businesses. Our resources extend to supply, manufacturing, distribution, and existing capital investment and infrastructure.

The economic impact of actions which ban or regulate delta-8 and other hemp-derived products, out of the Maryland Hemp Industry control, would create an instant **estimated capital loss of over \$15M and \$350M of annual sales.** This action would functionally terminate over 60 growers and affect hundreds of active and profitable businesses. For growers and cultivators, this would result in an effective business disenfranchisement of this class of owner/operators; for retailers and end users, the loss of product options.

The **loss of Maryland sales tax revenue** from these establishments is estimated to **exceed \$21M of non-recoverable funds.** In addition, there would be a corresponding reduction in corporate taxation. We also estimate the State paying out well **over \$2M of unemployment compensation and related social service benefits and economic security payments.** In addition to these recurring losses for industry and government, there will be the loss of startup capital, potential calling in of loans, bankruptcy filings and the personal impact to staff and families.

**Given that all products derived from hemp are considered hemp, converted hemp-derived cannabinoid products found new market opportunities that have not been available to medical or adult-use cannabis operators.** Hemp-based operators were also able to conduct interstate commerce, rather than being restricted only to the markets where the products were grown and processed (which is required of adult-use and medical cannabis products). **From the period from 2019 through 2022, sales of hemp-derived cannabinoids exploded and is estimated to be between \$5.5 - \$6.5 billion in the U.S. alone.**<sup>9</sup> Unlike adult-use and medical cannabis, hemp-based products can be sold in all traditional distribution channels and retail outlets.

**With the regulatory uncertainty already high due to federal inaction, additional uncertainty around state regulations has negatively impacted the national hemp industry.** Unsure of what the rules will be in three months, six months, or a year, Hemp industry stakeholders are unable to properly develop long term strategies, or even short-term operational strategies. Investments planned for hemp projects are now being allocated elsewhere. At a time where, in order to accelerate the growth of the market, supportive policies are necessary, more restrictive measures are being put in place that are doing just the opposite. **The lack of investment and deployment of the hemp infrastructure impacted the economic potential of U.S. hemp by \$20 - \$25 billion in 2021 alone. This is as large as the entire legal U.S. sales of the adult-use and medical cannabis retail industry.**<sup>10</sup>

## CONCLUSION AND RECOMMENDATIONS

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**Our Associations suggest that a cooperative venture between the Hemp and Cannabis market entities be promoted.** Such an approach would best serve the public and industry stakeholders.

Much of the narrative has been that hemp and adult-use cannabis are competing markets. However, given that there are significant differences in the distribution channels and consumer archetypes, there is not as much overlap as is assumed.

The Hemp industry currently provides Cannabis producers with an array of hemp-derived minor cannabinoids including Delta 8. These products are used to enhance the Cannabis products offered to the consumers of the regulated market. MSOs have embraced hemp-derived cannabinoid products to introduce their brands and secure market share in other states.

**If a public safety crisis exists why would major cannabis operators sell and promote these products?**

Given that there are differences in consumer types as well as with distribution channels, it appears on the surface that adult-use cannabis and hemp-based products can coexist.

In summary, we focus on these key messages:

- Our Association's are seeking an equitable outcome. We seek cooperation not competition in a supportive venture with Big Cannabis MSOs.
- We ask that you defer precipitous actions which, although well intended, may have significant negative consequences for this complex and not fully understood marketplace.
- We offer guidance, input, and access to our constituent data, and finally,
- We welcome your support for the century-old Hemp farming community that is a unique and valuable member of the Maryland marketplace.

# APPENDIX A:

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## AMENDMENTS TO SB0516/HB0556 FOR HEMP REPRESENTATION

The amendments presented below are to create hemp representation within the Advisory Board of the Alcohol, Tobacco, and Cannabis Commission to provide advice and expertise with respect to plans, policies, and procedures applicable to the regulations of the production and sale of hemp derived products. Allowing for the Commission to establish regulatory control over these products.

### 1-303.

- Page 5, lines 18-19: **TWO SHALL BE KNOWLEDGEABLE AND EXPERIENCED IN THE CANNABIS INDUSTRY; AND TWO SHALL BE KNOWLEDGEABLE AND EXPERIENCED IN THE HEMP INDUSTRY**

### 1-309.2.

- Page 11, line 24: **ADD - (VI) THREE REPRESENTATIVES FROM THE HEMP INDUSTRY;**
- Page 11, line 25: **~~(VI)~~ (VII)**
- Page 11, line 28: **~~(VII)~~ (VIII)**
- Page 12, line 3: **~~(VII)~~ (IX)**

# APPENDIX B:

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## STANDARDS FOR DELTA-8 THC AND THC ISOMER PRODUCTS

This language is provided as a sample of reasonable regulations for hemp-derived and refined hemp products and established by the Maryland Hemp Industry. Additional language can be provided as amendments to current proposed legislation upon request.

### I. DISTRIBUTION OF DELTA-8 THC AND THC ISOMER PRODUCTS

Delta-8 THC and THC isomer products may only be distributed and sold in the state if the extract or product:

1. Has a certificate of analysis prepared by a qualified testing laboratory which states that
  - a) The Delta 8 or Hemp-Derived THC Isomer Product is the product of a batch tested by the independent testing laboratory;
  - b) The batch contained an acceptable hemp THC level of a delta-9-tetrahydrocannabinol concentration that did not exceed 0.3 percent on a dry weight basis pursuant to the testing of a random sample of the batch; and
  - c) The batch does not contain contaminants unsafe for human consumption includes but is not limited to, any microbe, fungus, yeast, mildew, herbicide, pesticide, fungicide, residual solvent, metal, or other contaminant found in any amount that exceeds the accepted limitations as specified by COMAR, or other limitations pursuant to the laws of this State, whichever amount is less.
2. The Commission may analyze the certificate of analysis of the Delta 8 or Hemp-Derived THC Isomer Product and inspect the label to ensure that the product:

- a) Meets all proposed labeling claims.
  - b) Meets all requirements under this subsection and rules.
  - c) Contains an acceptable Delta 9 THC level.
  - d) Is not adulterated or misbranded
3. The Commission shall deny the sale of a delta-8 or THC isomer product in the State that does not meet the requirements of this paragraph or rules.
    - a) Delta 8 or Hemp-Derived THC Isomer Products manufactured or distributed or sold in violation of this subsection section shall be considered adulterated or misbranded

## **II. LABELING**

1. Delta 8 or Hemp-Derived THC Isomer Products for human consumption as a food or dietary supplement shall be labeled in accordance with FDA guidelines for food or dietary supplement labeling.
2. Delta 8 or Hemp-Derived THC Isomer Products produced for topical absorption by humans shall be labeled in accordance with FDA guidelines for Cosmetic Products Warning Statements.
3. Delta 8 or Hemp-Derived THC Isomer Products shall not contain disease or drug claims on the label that are not approved by the FDA.
4. Product labels must be clear and legible.
5. Labels must be printed in English.
6. The following labeling is forbidden:

- a) The product cannot be attractive to children. This includes, but is not limited to:
    - 1. The use of cartoons;
    - 2. The use of images popularly used to advertise to children; or
    - 3. The imitation of a candy label.
  - b) The label cannot include false or misleading information. This includes untrue or unproven information that leads consumers to have an inaccurate impression.
7. Labels will be considered misbranded when an analysis finds the claim is above or below 20% of the amount declared on the label.
8. The following requirements must be met for the primary label:
- a) The Delta 8 or Hemp-Derived THC Isomer Product must be identified with the generic or common name;
  - b) If the product contains Delta 8 or Hemp-Derived THC Isomers, the label must properly identify them; and
  - c) The net weight or volume of the contents of the package, in both metric and US customary units must be displayed.
9. The following requirements must be met for the information panel:
- a) Manufacturer's or Distributor's name and contact information;
  - b) Manufacturing or packaging date;
  - c) Batch or lot number;

- d) Instructions for use and any preparation needed;
  - e) List of all ingredients in descending order by weight or volume;
  - f) Allergens if applicable;
  - g) Artificial food coloring, if applicable;
  - h) Expiration or use by date, if applicable;
  - i) Refrigeration or refrigerate after opening warnings, if perishable after opening; and
  - j) For edible products, sodium, sugar, carbohydrates, and total fat per serving.
10. The Delta 8 or Hemp-Derived THC Isomer content, in milligrams, may be posted on either the primary or informational panel, and must include:
- a) Delta 8 or Hemp-Derived THC Isomers content per package for all manufactured products; and
  - b) Delta 8 or Hemp-Derived THC Isomers content per serving for all edibles and concentrates, with designated serving sizes.
11. A QR code, or similar tool, may be used in lieu of labeling requirements on the physical label's informational panel for all required information except that required by previous sections.
12. Delta 8 or Hemp-Derived THC Isomer Products should be easily distinguishable from that of a non Delta 8 or Hemp-Derived THC Isomer product. To provide a visual identifier for consumers, producers of Delta 8 or Hemp-Derived THC Isomer products may provide warning label. Such as:

“This product contains Hemp-Derived THC or an isomer of THC. Do not drive a car or participate in any other activity where motor function is required for



safety. Do not use if nursing or pregnant. This product is not for sale to anyone under 21. THC will also trigger a positive THC result on a drug test.”

### **III. INSPECTION AND TESTING**

1. The Commission may conduct random inspections of Delta 8 or Hemp-Derived THC Isomers distributed or made available for distribution in the state.
2. The Commission may conduct inspection of Delta 8 or Hemp-Derived THC Isomer Products distributed or available for distribution for any reason that the Department deems necessary.
3. Samples taken by the Commission or designee shall be the official samples.

### **IV. DISTRIBUTION OF DELTA 8 THC OR THC ISOMER PRODUCTS**

The purpose of this section is to prohibit the sale or distribution of products containing a Delta 8 or Hemp-Derived THC Isomers to, or purchase of products containing a Delta 8 or Hemp-Derived THC Isomers on behalf of, persons under twenty-one (21) years of age. **(ALREADY IN LAW)**

# CITATIONS

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- <sup>1</sup> Cannabidiol reverses attentional bias to cigarette cues in a human experimental model of tobacco withdrawal, [www.ncbi.nlm.nih.gov/pmc/articles/PMC6099309/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC6099309/), Retrieved November 8, 2022.
- <sup>2</sup> Many Uses of Hemp, [/www.hempaware.com](http://www.hempaware.com), Retrieved November 9, 2022
- <sup>3</sup> The history of Hemp [//cannabis.net](http://cannabis.net)) retrieved November 3, 2022
- <sup>4</sup> BEAU R. WHITNEY, Hemp Derived Cannabinoids- An Economic Impact Analysis of Cannabinoid Manufacturing in Colorado; Whitney Economics, October 2022; pg. 7
- <sup>5</sup> “What is the Difference Between Delta 8 and Delta 9”, Retrieved November 9, 2022, [www.discovermagazine.com/sponsored/what-is-the-difference-between-delta-8-thc-and-delta-9-thc](http://www.discovermagazine.com/sponsored/what-is-the-difference-between-delta-8-thc-and-delta-9-thc)
- <sup>6</sup> AK FUTURES LLC,, v. BOYD STREET DISTRO, LLC,, D.C. No. 8:21-cv-01027- JVS-ADS, 9th Circuit Court of Appeals, March 18, 2022, Retrieved from [://cdn.ca9.uscourts.gov/datastore/opinions/2022/05/19/21-56133.pdf](http://cdn.ca9.uscourts.gov/datastore/opinions/2022/05/19/21-56133.pdf) November 18, 2022
- <sup>7</sup> USDA NASS report, [://www.nass.usda.gov/Statistics\\_by\\_State/Maryland/Publications/News\\_Releases/2022/2022-MD-Hemp\\_Press-Release.pdf](http://www.nass.usda.gov/Statistics_by_State/Maryland/Publications/News_Releases/2022/2022-MD-Hemp_Press-Release.pdf), retrieved November 10, 2022
- <sup>8</sup> Giacomo Bologna, May 12, 2022, “There is a Rapidly Expanding Unregulated Competitor...Delta 8, Baltimore Sun, retrieved November 18, 2022,[//www.baltimoresun.com/business/bs-bz-delta-8-maryland-20220512-uwdu3gvhcfahfc7jyc7hwakxre-story.html](http://www.baltimoresun.com/business/bs-bz-delta-8-maryland-20220512-uwdu3gvhcfahfc7jyc7hwakxre-story.html)
- <sup>9</sup> BEAU R. WHITNEY, Hemp Derived Cannabinoids- An Economic Impact Analysis of Cannabinoid Manufacturing in Colorado; Whitney Economics, October 2022; pg. 8
- <sup>10</sup> BEAU R. WHITNEY, Hemp Derived Cannabinoids- An Economic Impact Analysis of Cannabinoid Manufacturing in Colorado; Whitney Economics, October 2022; pg. 9

**DRM Tesimony SB 516 final\_.pdf**

Uploaded by: Luciene Parsley

Position: FWA

**SENATE FINANCE COMMITTEE**  
**HB 556/SB 516: CANNABIS BILL AMENDMENT**  
**MARYLAND LEGAL SERVICES CORPORATION FUNDING**  
**MARCH 9, 2023**

**POSITION: SUPPORT WITH AMENDMENT**

The proposed amendment to HB 556/SB 516 would dedicate 10% of cannabis tax revenue to an existing Special Fund administered by the Maryland Legal Services Corporation (MLSC). Disability Rights Maryland (DRM, formerly known as Maryland Disability Law Center) is one of many grantees who rely on MLSC funding to provide vital legal services to Marylanders with disabilities, including residents of communities most impacted by the war on drugs and the disproportionate enforcement of the cannabis prohibition. MLSC is DRM's single largest funder.

DRM is the federally required, state designated Protection and Advocacy agency in Maryland, mandated to advance and protect the rights of people with disabilities throughout the state. We provide free legal services to Marylanders of any age with all types of disabilities (developmental, intellectual, psychiatric, physical, sensory, learning, traumatic brain injury, and more).

Marylanders with disabilities are often among the most economically disadvantaged and stigmatized. Many people are homeless, live in poverty, are isolated in facilities and tend to have increased health and other disability-related expenses coupled with limited opportunities to earn income. In Maryland, more than half of all people with disabilities had annual household incomes below \$15,000 in 2016.<sup>1</sup>

With MLSC's funding, DRM provides a broad array of advocacy services focused on maintaining and increasing access to housing, education, health and mental health care, transportation, employment, community-based services and preventing abuse, neglect and discrimination.

In addition, multiple studies have shown that every dollar invested in civil legal services results in a \$6 return in the form of in economic activity, cost savings and increased productivity – a return of hundreds of millions of dollars each year.

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<sup>1</sup> MD. DEP'T OF HEALTH, BRFSS BRIEF: DISABILITY AND HEALTH AMONG MARYLAND ADULTS (August 2018), [https://health.maryland.gov/bhm/DHIP/Documents/BRFSS\\_BRIEF\\_2018-08\\_Disability.pdf](https://health.maryland.gov/bhm/DHIP/Documents/BRFSS_BRIEF_2018-08_Disability.pdf).

One of many examples of DRM's services illustrates both the critical need and cost effectiveness of MLSC-funded services. DRM assisted a mother who considered reporting herself to Child Protective Services (CPS) in order to obtain care for her son, a youth with autism. Due to her medical conditions and need to work she could not provide the full time care her son needed. DRM stepped in and convinced the Developmental Disabilities Administration that the son should be eligible for services. As a result, the son was able to receive the in-home supports he needed and mother and son were able to continue to live safely in their home together, instead of the mother resorting to reporting herself to CPS and her son being placed in the full-time care of the state.

Over the past three years the demand for DRM's services has increased exponentially. At the same time, similar to many other MLSC funded organizations, DRM experienced significant staff turnover and difficulty recruiting qualified staff. Our salaries are not competitive with state government salaries and it has become increasingly difficult to retain and attract qualified staff.

It is vitally important to secure additional funding for MLSC to address this significant increase in demand for legal advocacy services. Therefore, we request the committee approve the proposed amendment to dedicate 10% of cannabis tax revenue to an existing Special Fund administered by the Maryland Legal Services Corporation (MLSC).

Thank you for the opportunity to provide testimony to the Committee on behalf of Disability Rights Maryland. I would be happy to provide any further information or answer questions, and can be reached at [RobinM@DisabilityRightsMD.org](mailto:RobinM@DisabilityRightsMD.org).

Respectfully,

A handwritten signature in cursive script that reads "Robin C. Murphy".

Robin C Murphy  
Executive Director, Disability Rights Maryland

**SB 516 - MoCo\_Elrich\_SWA (GA 23).pdf**

Uploaded by: Marc Elrich

Position: FWA



OFFICE OF THE COUNTY EXECUTIVE

Marc Elrich  
County Executive

March 9, 2023

TO: The Honorable Melony Griffith  
Chair, Finance Committee

FROM: Marc Elrich  
County Executive

RE: Senate Bill 516, *Cannabis Reform*  
Support with Amendments

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I am writing to express support for Senate Bill 516, *Cannabis Reform*, with amendments that address issues relating to revenue generation and distribution, local zoning authority, and the rights and responsibilities of employers and employees.

The bill outlines a thoughtful and comprehensive plan for a licensing and regulatory system that will allow the State to move forward as expeditiously as possible to provide safe access to cannabis products, minimize negative public health impacts, ensure diversity and social equity in the cannabis industry, and reinvest resources in communities that have been disproportionately impacted by the long history of racial and socioeconomic disparities in the enforcement of criminal laws relating to marijuana and other cannabis products. The bill is an excellent vehicle for facilitating final decisions about the many policy issues that must be made this year. However, several components of the bill should be modified to allow local governments to appropriately address community impacts relating to legalization.

The bill establishes a State sales tax of 6% (increasing by 1% each year until reaching 10% in fiscal year 2028) and allocates 1.5% of the revenues to local governments. There is no local taxing authority in the bill. An aggregate sales tax of 6% to 10% is a moderate step when compared to the aggregate tax rates in other states that have legalized cannabis. However, many other states have allocated a much higher share of tax revenues to local governments or have granted new local taxing authority. The bill should be amended to grant local taxing authority or ensure that local governments receive a more equitable share of State sales tax revenues to help support programs that address the negative impacts of legalized cannabis on public health and public safety as well as other related programs that serve our communities.

The Honorable Melony Griffith  
Re: Senate Bill 516  
March 9, 2023

The bill authorizes local governments to establish “reasonable” zoning requirements that do not create an “undue burden” for cannabis businesses. Unfortunately, the terms “reasonable” and “undue burden” are not defined and will likely lead to litigation regarding their meanings. The bill should be amended to either strike these provisions or define the two terms in a manner that maintains local zoning authority for growers, processors, and dispensaries similar to the scope of existing local zoning authority for other agricultural, manufacturing, and retail/service businesses. There is nothing in State law that restricts local zoning authority for medical cannabis, alcoholic beverage, tobacco, vaping, casino, or sports wagering businesses. There should be no zoning restrictions regarding cannabis businesses.

The bill seeks to clarify the rights and responsibilities of employees and employers. However, these provisions are confusing and inconsistent. The bill uses the terms “employer” and “government employer” in various places but neither term is defined. As a result, it is unclear whether the provisions that apply to an employer also apply to a government employer. The provisions that relate to government employers are also inconsistent regarding circumstances under which an employee may be disciplined. The bill should be amended to address inconsistencies and clarify its intent.

Importantly, the bill includes prohibitions against advertisements that are false or misleading, contain a design or depiction that targets minors, display the actual use of cannabis, or encourage use of cannabis as an intoxicant, or are obscene. The bill also prohibits advertising on television, radio, internet, mobile applications, social media, and other digital or print publications unless at least 85% of the audience is reasonably expected to be at least 21 years old as determined by reliable and current data regarding audience composition and on the sides of buildings or other publicly visible locations (e.g., signs, billboards, posters). Numerous studies have shown that exposure to advertising for cannabis products, especially via digital media, is associated with increased frequency and heavier use of cannabis products. Our communities have learned painful lessons relating to the over-marketing of tobacco and alcohol products and marketing of cannabis products should generally be avoided. At the very least, advertising restrictions should be extensive and vigorously enforced. In addition, we should continue to study potential causal relationships between advertising and the appeal of cannabis products to young people.

As the Finance Committee moves forward with finalizing decisions about the bill, I respectfully request that the Committee consider the issues discussed above and give the bill a favorable report with amendments that address each issue.

cc: Members of the Finance Committee



# **GW Testimony- Cannabis Reform Act - SB 516.pdf**

Uploaded by: Mary Cramer Wagner

Position: FWA



SB 516: FWA

March 8, 2023

The Honorable Melony Griffith, Chair  
Senate Finance Committee  
3 East, Miller Senate Office Building  
Annapolis, Maryland 21401

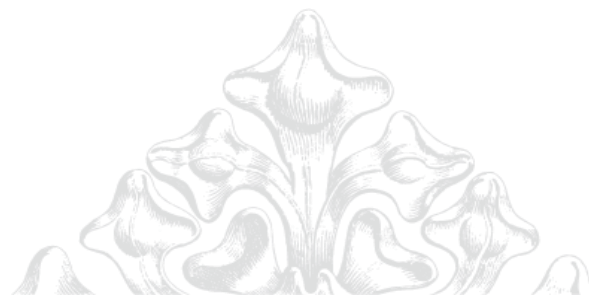
The Honorable Guy Guzzone  
Senate Budget & Taxation Committee  
3 West, Miller Senate Office Building  
Annapolis, Maryland 21401

Dear Chairs Griffith, Guzzone and Committee Members:

I am pleased to submit the following testimony for Senate Bill 516: Cannabis Reform Act on behalf of Grow West LLC. By way of background, Grow West MD is a licensed cannabis cultivator and dispensary operator in Cumberland, MD. Our Maryland family business applied for and was awarded a license to grow and dispense medical cannabis in 2016. We have always appreciated the opportunity to build a Maryland-owned and operated business, in an economically disadvantaged area, and as our top priority, grow a safe, quality product for the patients of our State.

Grow West provides good jobs to over 150 employees; paying family sustaining wages and benefits; enabling many to become first-time homebuyers, purchase automobiles, start families and contribute to the local economy.

Grow West has watched with admiration how much time and effort the Sponsors have devoted to this legislation and to developing a well-functioning adult use cannabis market. The deliberations of the Cannabis Work Group were incredibly professional and thorough, and the legislation shows the seriousness with which the General Assembly has embraced this challenge.





On any number of issues, SB 516 gets the policy right the first time. By giving medical growers the opportunity to convert to serve the adult use market, and doing so on an expedited timeline, Marylanders will have a safe, legal source of cannabis for adult use as soon as this summer. We believe this policy will minimize the ability of illicit suppliers to capture the expanded adult use market, and that Maryland can avoid the chaotic and dangerous circumstances we have seen in other states. Similarly, SB 516 sets tax rates thoughtfully, which will reduce the ability of dangerous illicit drugs to supplant the regulated legal adult use market.

We respectfully submit that there are a handful of areas where SB 516 could be improved to ensure a successful rollout of adult use cannabis.

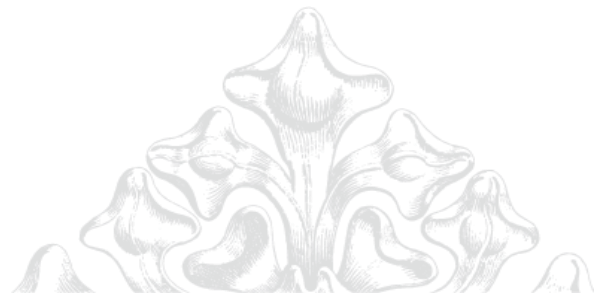
#### Conversion Fees

The conversion fees for medical cannabis providers, if passed, will be the highest in the nation. Missouri, the state that most recently moved to an adult use market, required their existing licensees to pay \$2,000 to convert their license. Missouri's transition to the recreational market is important to note for Maryland in that they realized that the existing medical market is needed to provide product and support to stand up the adult use market.

As the Committee knows, cannabis growers are severely hampered in their ability to access capital from traditional sources. Securing sums of as much as \$2,500,000.00 is critically difficult for our industry, even if the business were in a stronger position than it currently is. Moreover, for companies like Grow West to access such large sums of capital, it will inevitably hinder our ability to access capital that we will need for investments and hiring. We are also concerned that such large fees are a greater problem for independent local operators like Grow West, because Multi-State Operators (MSOs) from out-of-state have greater ability to access and arbitrage capital across states and markets.

#### Hold Period for Sales of Licenses

Finally, the legislation calls for a prohibition against selling a newly converted license for a period of five (5) years. Grow West respects the state's desire to award licenses to those businesses making a long-term commitment to the state; in fact, Grow West is still owned and operated by its original Maryland-based team. We respectfully suggest that the General Assembly consider allowing adult use licensees who have converted from medical licenses to credit their medical





ownership period toward the five-year hold requirement.

#### Micro Licenses

The bill also provides for 100 micro licenses and notes that each licensee can occupy up to 10,000 square feet of canopy space. If all 100 micro licenses are awarded and occupy the maximum amount of space, the market would need to absorb an additional 1 million square feet in canopy space. Additionally, the language would allow these micro licensees to associate with other micro licenses in a way that could change the face of the market. We respectfully suggest that the General Assembly consider limiting the number of licenses provided until a later date to reassess the newly formed market.

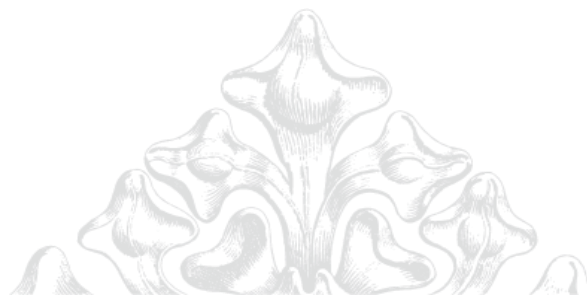
In short, we are excited to support many of the provisions of the Act, including canopy restrictions and mentorship opportunities for minority licensees. However, the provisions listed above should be addressed by the Committee to ensure that Maryland's adult use market is a model for other states to follow. Thank you for your time and consideration of this matter. Should you or your staff have any questions regarding these matters, I can be reached at [susan.valois@growwestmd.com](mailto:susan.valois@growwestmd.com)

Sincerely

Susan Valois, President  
Grow West MD

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975 Kelly Road Suite D  
Cumberland, MD 21502  
844-874-8500

**DISPENSARY**  
1096 W Industrial Blvd  
Cumberland, MD 21502  
833-942-9900



# **SB516\_MDBlackCannabisOperatorsAlliance-Amendments**

Uploaded by: MD Black Cannabis Operators Alliance

Position: FWA

**Maryland Black Cannabis Operators Alliance  
HB 556 – Proposed Amendments**

#####

**Amendment 1  
Establishing and granting of licenses to “Certain Entities Economically Impacted”**

Summary

**\*\*\*Note: This amendment establishes a group of small and disadvantaged existing license holders called “Certain Entities Economically Impacted.”**

**During Round 1 of licensure, winning applicants were given the option of opening up a dispensary without a transparent competitive process. This has given these applicants years of an unfair advantage over new entrants. We have a unique opportunity to right past wrongs and create wealth.**

#####

**Amendment 2**

**Remove Timeline of Transfer Restrictions for Certain Entities Economically Impacted**

Summary

**\*\*\*Note: Lack of capital has and continues to be an obstacle for small and disadvantaged license holders in the cannabis industry. Licensees should be given an adequate timeframe to transfer their licenses.**

#####

**Amendment 3**

**Reduce Number of Licenses**

Summary

**\*\*\*Note: This would ensure the social equity or economic impacted licensees could establish a market and grow without being flooded by standard licenses.**

#####

**Amendment 4**

**Remove Conversion Fees for Certain Entities Economically Impacted**

Summary

**\*\*\*Note: Lack of capital has and continues to be an obstacle for small and disadvantaged license holders in the cannabis industry. This amendment critical for these license holders to compete in the industry without burdening them with undue debt.**

**Additionally, Round 1 awardees were given the option of opening up a dispensary without a transparent competitive process. That should be based in the fee as well, which would in turn increase the allocations to the Fund.**

\*\*\*\*\*

**Suggested language changes**

Page 55, Line 2  
36—411

(A) NOTWITHSTANDING SECTION 6 OF THIS ACT, ON OR BEFORE JULY 1, 2023, THE DIVISION SHALL:

(1) GRANT AN ENTITY NO LESS THAN FOUR STAGE ONE PRE APPROVALS FOR LICENSURE AS A DISPENSARY UNDER § 36-401, IF THE ENTITY:

(I) IS PRE-APPROVED AS A LICENSED MEDICAL CANNABIS GROWER OR PROCESSOR, BUT HAS NOT BEEN GRANTED FINAL OPERATIONAL APPROVAL, OR

(II) HAS BEEN OPERATIONAL LESS THAN TWELVE MONTHS PRIOR TO ENACTMENT OF THIS LEGISLATION.

(2) GRANT AN ENTITY NO LESS THAN TWO STAGE ONE PRE APPROVALS FOR LICENSURE AS A DISPENSARY UNDER § 36-401, IF THE ENTITY:

(I) IS CURRENTLY LICENSED AS A MEDICAL CANNABIS DISPENSARY UNDER § 13-3306 OF THE HEALTH – GENERAL ARTICLE; AND

(II) DEMONSTRATION THAT THE ENTITY MEETS THREE OR MORE OF THE FOLLOWING CRITERIA:

(i) AT LEAST 51 PERCENT OF ITS OWNERSHIP INTEREST IS HELD BY ONE OR MORE INDIVIDUALS WHO HAVE LIVED IN AN ECONOMICALLY DISADVANTAGED AREA FOR 5 OF THE PRECEDING 10 YEARS;

(ii) A MAJORITY OF THE CURRENT EMPLOYEES LIVE IN AN ECONOMICALLY DISADVANTAGED AREA;

(iii) A MAJORITY OF THE CURRENT CONTRACTORS LIVE IN AN ECONOMICALLY DISADVANTAGED AREA; AND

(iv) AT LEAST 51 PERCENT OF ITS OWNERSHIP INTEREST IS HELD BY ONE OR MORE INDIVIDUALS WHO ARE A MEMBER OF A HOUSEHOLD THAT EARNS NO MORE THAN 80 PERCENT OF THE STATE MEDIAN HOUSEHOLD INCOME.

(B) AN APPLICANT WHO IS GRANTED STAGE ONE PREAPPROVAL FOR A LICENSE UNDER SUBSECTION (A) OR (B) OF THIS SECTION SHALL MEET THE REQUIREMENTS ESTABLISHED BY THE DIVISION FOR FINAL APPROVAL OF LICENSURE, AS DEFINED IN THIS ACT, INCLUDING ANY NEW DATE SET BY THE DIVISION FOR THE LICENSEE TO BECOME OPERATIONAL.

(C) ALL ENTITIES WHO OBTAINED LICENSURE UNDER THIS SECTION SHALL BE REFERRED TO HEREAFTER AS “CERTAIN ENTITIES ECONOMICALLY IMPACTED.”

## **Amendment 2**

### **Timeline of Transfer Restrictions**

**\*\*\*Note: Lack of capital has and continues to be an obstacle for small and disadvantaged license holders in the cannabis industry. Licensees should be given an adequate timeframe to transfer their licenses.**

Page 57, Line 12

(4) THE LIMITATION ON TRANSFER TIMEFRAMES SHALL BE REMOVED FOR ALL ENTITIES GRANTED LICENSURE AS CERTAIN ENTITIES ECONOMICALLY IMPACTED OF THIS ACT.

## **Amendment 3**

### **Number of Licenses**

**\*\*\*Note: This would ensure the social equity or economic impacted licensees could establish a market and grow without being flooded by standard licenses.**

1. Standard Licenses should be reduced to 30 Grows, 50, Processors and 200 Dispensaries
2. The issuance of new licenses should be based on the growth of the Maryland cannabis market. The market should be assessed every six months. For example, if gross cannabis revenues in Maryland increase by a factor of 10%, then 10% of the authorized new licenses



should be issued. This process should continue every six months until the total number of authorized, approved licenses is reached. This protects the state and the licensees who have worked hard and took the risks not to be overwhelmed by oversaturation of the market.

3. At least 50% of incubator licenses shall be reserved for certain entities economically impacted.

#### **Amendment 4 Conversion Fees**

**\*\*\*Note: Lack of capital has and continues to be an obstacle for small and disadvantaged license holders in the cannabis industry. This amendment critical for these license holders to compete in the industry without burdening them with undue debt.**

**Additionally, Round 1 awardees were given the option of opening up a dispensary without a transparent competitive process. That should be based in the fee as well, which would in turn increase the allocations to the Fund.**

For Certain Entities Economically Disadvantaged:

- The conversion rates should be reduced by 60%
- A five-year term to pay by quarter shall be granted
- There should be no interest attached to the term payment
- Failure to pay may result in loss of license

Page 42, Line 7

If a business holds a grower, processor, and dispensary license, the fee shall be based on total gross revenue from these license types.

**SB0516\_FWA\_Hughes.pdf**

Uploaded by: Megan Hughes

Position: FWA



9291 Baltimore National Pike

Ellicott City, Maryland 21042

[www.trilogy.health](http://www.trilogy.health) 443-539-7372

To: Chair Griffith, Vice Chair Senator Klausmeier and members of the Finance Committee

From: Trilogy Wellness of Maryland

Date: March 8<sup>th</sup>, 2023

Re: SB0516

---

Good morning, Chair Senator Griffith, Vice Chair Senator Klausmeier and members of the Finance Committee,

First, I would like to thank the Chair's and members of the Economic Matters Committee for the opportunity to provide feedback, a critical piece of legislation for the future of cannabis reform. Trilogy Wellness submits our favorable testimony with consideration for a few amendments. President, COO and Veteran Herman Dunst's, feedback stems from significant experience in law enforcement, COMAR regulations and auditing, agriculture, and supply chain management. Megan Hughes, the Chief Policy & Social Responsibility Officer and General Manager of Trilogy Wellness has a proven track record of effective dispensary management, a Master's in Medical Cannabis Science and Therapeutics, and is currently in her final semester at the prestigious Georgetown University's McCourt School of Public Policy pursuing a Master's in Policy Management with a concentration in social equity and diversity. Trilogy has been operational since 2018 and has found success as an independent dispensary in a competitive market.

Trilogy Wellness was early to enter the medical cannabis market, first opening our doors in March of 2018. As an independent dispensary we have personally experienced the challenges that can be experienced in the cannabis industry. Trilogy was founded on the principles of health, wellness, and community; as such we strive to not only advocate for our business needs, but also for the social and economic wellbeing for all. Trilogy Wellness is in overall support of HB0556, provided there are amendments and clarification on several key components: number of licensed dispensaries, required conversion fee, definition of licensees, and equality of operations across all licensees.

As you know, sound and successful public policy is rooted in evidence-based practices and quality data analysis. Trilogy commends the State of Maryland for their efforts to build HB0556 with these principals, but strongly believe there should be additional amendments to several key issues.

**Dispensary Repacking**

The most recent update to HB0556 removed the ability for dispensaries to purchase cannabis in bulk to repackage prior to sale. I believe our experience as an independently owned and operated dispensary can shed light as to why this regulation would negatively impact dispensaries and result in an inequitable outcomes. The ability to purchase and sell this way is the business model that allowed Trilogy to compete, and ultimately find success in a highly competitive market. Independent dispensaries are at a disadvantage in profit margin compared to vertically integrated companies and limited to the products and prices they are willing to offer. When creating our repacking procedure we were able to increase our profit margins compared to purchasing prepackaged products. Additionally, when repacking in house a dispensary can decide what volume their specific patients purchase, this more accurate inventory results in quicker inventory turn thus a faster cash flow and increased purchasing capacity.

The repack process, when following appropriate Standard Operating Procedures, is a strictly monitored process. Over the last 5 years Trilogy has engaged in many conversations with enforcement over the process of repack process. We believe that with an enhanced understanding of the process and a standard industry SOP there is no added risk of diversion compared to any prepackaged product. President and COO Herman Dunst has extensive experience in agriculture, inventory control, six sigma in addition to a law enforcement background, auditing and creation of COMAR regulations. We would gladly share our process and model that we believe results in a meticulous and compliant process that benefits the industry as a whole.

When conducting a racial impact analysis of the proposed regulation we find it this restriction would most significantly impact social equity applicants. As explained operators benefit from the reduced costs of this production, returning quicker cashflow, a crucial aspect of a cannabis operation. Social Equity applicants often do not have the same access to capital as their privileged peers. Additionally, this process creates additional jobs at dispensaries across the state instead of isolating the increased employment to growers and processors. Considering these factors we strongly believe the benefits of the business opportunity outweigh fears of diversion and would recommend this regulation be amended.

### **Demand Study**

We recognize there is no perfect calculation but believe the demand study lacked several key factors and fear the proposed 300 licenses could over saturate the market and threaten the success of the program moving forward. Over saturation drives up operating costs as additional marketing and more competitive pricing squeeze resources and profit margin. The increased competition will disproportionately impact small businesses as they do not have the capital of multi-state operators. Additionally, the issues accessing capital in an all cash business significantly impacts minorities as they are historically less likely to have the same access to capital as their white counterparts. These constraints can squeeze the very operators that Maryland is attempting to support out of the industry. During the Covid 19 pandemic the cannabis industry saw an influx of M&A activity as companies fought their way to survive, consequentially that same period saw a significant decrease in minority and women owned cannabis operations. It is reasonable to question the potential causation between the two.

The first area we believe needs to be reevaluated is the predicted future consumption of cannabis. The analysis provided in the demand study was based on the consumption in 2022. Nationally, it is recognized that the pandemic inflated cannabis sales, followed by a decline and price compression, trends which has been seen in Maryland as well. Further analysis that considers the impact of the global pandemic may show lower than predicted usage trends. Medical patients also have a more inelastic demand for cannabis compared to the elasticity of the adult use market as they are purchasing a medication. Furthermore, in regards to the analysis of the current per capita consumption, there was no mention of consideration on the amount of cannabis purchased by medical patients but diverted to non-medical patients, thus survey results may be over representing predicted use.

The study also provides contradictory recommendations in regards to the number of dispensaries per location. One of the major supporting factors for the number of proposed dispensaries is the percent of residents who walk as a form of transportation in Baltimore City. One section as the report recommends that there be 75 dispensaries in Baltimore City, however later in the report recommends areas for the most dispensaries to be Montgomery County (48). There is significant evidence that in the report about the importance of safety and delivery, comprehensive delivery service in Baltimore City maybe more beneficial to the residents and operators. Residents do not have to be concerned about walking with their cannabis, and operators who have historically avoided Baltimore City will be more apt to operate there. Lower overhead costs is also beneficial as the median income for Baltimore City residents is \$54, 124 vs the state average of \$85,000.

### **Conversion Fees**

We are appreciative to be granted access to the adult use market and the need for the proposed fees to support the roll-out of the program and social equity funding. The recently proposed 18-month payment period is greatly appreciated as opposed to original legislation but believe there is a benefit to considering a longer payment period or reassess fee amounts.

Thank you to the members of the Economic Matters Committee for the opportunity to provide feedback on SB0516. We are happy to answer any additional questions.

Respectfully,

Herman Dunst & Megan Hughes

**SB516\_MSPB Support with Amendments.pdf**

Uploaded by: Meredith Lathbury Girard

Position: FWA



March 8, 2023

**SB516 – Cannabis Reform**  
HEARING BEFORE THE SENATE  
FINANCE COMMITTEE  
SUPPORT WITH AMENDMENTS

Mid-Shore Pro Bono (MSPB) recommends a favorable report for SB516 with amendments. Dedicated funding generated from cannabis tax revenue to an existing special fund administered by the Maryland Legal Services Corporation (MLSC) is a critical step needed to repair the damage to communities disproportionately and unfairly impacted by cannabis prohibition. This funding is especially critical in rural communities such as the Eastern Shore where investment in legal assistance helps families to end generational poverty.

Mid-Shore Pro Bono, Inc. is a Maryland nonprofit that connects people on the Eastern Shore with limited financial means to legal representation and essential community resources. Each year, MSPB helps over 3,000 people in our community access the legal system in times of need. We serve 8 Eastern Shore counties (Caroline, Dorchester, Kent, Queen Anne's Somerset, Talbot, Wicomico, and Worcester). Our staff attorneys and network of volunteer lawyers provide free legal services for elder law, family law, landlord/tenant, record expungement, mortgage and tax foreclosure, and consumer debt. These services help families gain financial and housing stability and create safe, secure homes for children. MSPB provides free legal services to people with a household income of up to 50% of Maryland Median income. Most of our clients are working families who otherwise would not be able to afford to hire their own legal representation.

MSPB assists many clients with criminal record expungement, a relatively straightforward petition process required to have court and police records permanently removed from public inspection. Criminal records related to cannabis charges can create serious barriers, including preventing someone from obtaining housing, employment, and professional certifications. Having a clean record helps keep insurance bills low and enables people to volunteer in their communities. MSPB had a spike in requests for record expungement during the pandemic due to changing employment conditions and many people needing to seek new or different housing situations. One of our clients is a young father of two children who was offered a position as a teacher in a local school, but his employment was held up due to an old cannabis possession charge. Expungement of his record enabled him to move forward with his new job and provide financial stability for his family.

MSPB's ability to provide consistent, high-quality civil legal assistance is contingent on sufficient and continuous funding. Here on the Eastern Shore, trust and reliability are valuable currencies, and without ongoing financial support, MSPB cannot provide consistent access to counsel that people with limited financial means need. For these reasons, Mid-Shore Pro Bono urges the Committee's support for SB516. If you have any questions regarding our position on this bill, please contact Meredith Lathbury Girard, Esq., executive director, at 410-690-8128 or [mgirard@midshoreprobono.org](mailto:mgirard@midshoreprobono.org).

*Connecting Individuals and Families who need Civil Legal Services with Volunteer Attorneys and Community Resources*

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# **Senate Bill 516 Cannabis Reform- MFRI Testimony.pd**

Uploaded by: Michael Cox

Position: FWA



## Senate Bill 516 Cannabis Reform

### Maryland Fire & Rescue Institute's Position: Support with Amendments

**Bill Summary:** Among with other things, SB 516 sets up the framework to oversee the regulation of adult-use cannabis and establishes a licensing framework and graduated sales and use tax for the regulated sale of cannabis in Maryland.

#### Rationale:

- The implementation of cannabis reform in Maryland will likely impact public health and public safety. As many as 57 million instances of driving under the Influence of Cannabis are projected in Maryland each year, as well as other negative health outcomes for individuals, e.g., cannabis-induced suicidal ideations and psychotic or paranoid feelings<sup>1</sup>. In states where cannabis was legalized coupled with retail sales, the Insurance Institute for Highway Safety found that the rate of car crashes increased by nearly 6% and fatal car crashes increased by 4%, although changes in crash rates varied by state<sup>2</sup>.
- There is a clear nexus between the projected increase in adult use of cannabis and potential use of Maryland's emergency medical services (EMS) system.
- Certain components of the State's EMS system are supported by Maryland EMS Operations Fund (MEMSOF)<sup>3</sup>:
  - Maryland State Police Aviation Command
  - Maryland Fire & Rescue Institute of the University of MD
  - R Adams Cowley Shock Trauma Center
  - Maryland Institute for EMS Systems (MIEMSS)
  - The Senator Amoss Fire, Rescue and Ambulance Fund that provides monies for the purchase of fire and rescue equipment and capital building improvements.
- Department of Legislative Services DLS has projected MEMSOF insolvency in FY24<sup>4</sup>. MEMSOF is currently supported by a \$29 biennial vehicle registration fee surcharge that has needed to be increased every 10 years since it is not sensitive to inflation. The last increase was in 2013.
- MIEMSS' amendment will permit a portion of the sales and tax revenues associated with the adult-use cannabis program should be used to support the Maryland EMS System funded through the MEMSOF.

### Maryland Fire & Rescue Institute Supports SB 516 with Amendments and Asks for a Favorable Report<sup>1</sup>

<sup>1</sup> Cannabis Public Policy Consulting. Future Adult Use Cannabis Demand & Predictive Modeling – A behavioral Economic Study. January 5, 2023. See: [https://dlslibrary.state.md.us/publications/Exec/MDH/NMLMCC/HG13-4401\(b\)\\_2022\(d\).pdf](https://dlslibrary.state.md.us/publications/Exec/MDH/NMLMCC/HG13-4401(b)_2022(d).pdf)

<sup>2</sup> Farmer CM, Monfort SS, Woods AN. Changes in Traffic Crash Rates after Legalization of Marijuana: Results by Crash Severity. J Stud Alcohol Drugs 2022 Jul; 83(4); 494-501.

<sup>3</sup> § 13-955 Transp. Art., MD Code Ann.

<sup>4</sup> See: [2024FY - Operating Budget Analysis - MEMSOF\\* - Maryland Emergency Medical System Operations Fund](#)

AMENDMENTS TO SENATE BILL 516  
(First Reading File Bill)

On page 4, following line 11, insert new paragraph

“BY ADDING TO  
ARTICLE – TRANSPORTATION  
SECTION 19-355  
ANNOTATED CODE OF MARYLAND  
(2020 REPLACEMENT VOLUME AND 2022 SUPPLEMENT)”.

On page 80, following line 19, insert new paragraph

“(5) 1.0% TO THE MARYLAND EMERGENCY MEDICAL SYSTEM OPERATIONS FUND ESTABLISHED UNDER § 13-955 OF THE TRANSPORTATION ARTICLE;”.

On page 85, following line 27, insert

**“Article – Transportation**

13-955.

(a) In this section, “Fund” means the Maryland Emergency Medical System Operations Fund.

(b) (1) There is a Maryland Emergency Medical System Operations Fund.

(2) The Comptroller shall administer the Fund, including accounting for all transactions and performing year– end reconciliation.

(3) The Fund is a continuing, nonlapsing fund which is not subject to § 7–302 of the State Finance and Procurement Article.

(4) Interest and earnings on the Fund shall be separately accounted for and credited to the Fund, and are not subject to § 6–226(a) of the State Finance and Procurement Article.

(c) The Fund consists of:

(1) Registration surcharges collected under § 13–954 of this subtitle;

(2) All funds, including charges for accident scene transports and interhospital transfers of patients, generated by an entity specified in subsection (e) of this section that is a unit of State government; and

(3) Revenues distributed to the Fund from the surcharges collected under § 7–301(f) of the Courts Article.; AND

(4) REVENUES DISTRUBUTED TO THE FUND UNDER § 2-1302.2(5) OF THE TAX – GENERAL ARTICLE.

(d) Expenditures from the Fund shall be made pursuant to an appropriation approved by the General Assembly in the annual State budget or by the budget amendment procedure provided under § 7–209 of the State Finance and Procurement Article, provided that any budget amendment shall be submitted to and approved by the Legislative Policy Committee prior to the expenditure or obligation of funds.

(e) The money in the Fund shall be used solely for:

(1) Medically oriented functions of the Department of State Police, Support Service Bureau, Aviation Command;

(2) The Maryland Institute for Emergency Medical Services Systems;

(3) The R Adams Cowley Shock Trauma Center at the University of Maryland Medical System;

(4) The Maryland Fire and Rescue Institute;

(5) The provision of grants under the Senator William H. Amoss Fire, Rescue, and Ambulance Fund in accordance with the provisions of Title 8, Subtitle 1 of the Public Safety Article; and

(6) The Volunteer Company Assistance Fund in accordance with the provisions of Title 8, Subtitle 2 of the Public Safety Article.”.

**SB0516-FIN\_MACo\_SWA.pdf**

Uploaded by: Michael Sanderson

Position: FWA



## **Senate Bill 516**

### *Cannabis Reform*

MACo Position: **SUPPORT**  
**WITH AMENDMENTS**

To: Finance and Budget and Taxation  
Committees

Date: March 9, 2023

From: Kevin Kinnally and Michael Sanderson

The Maryland Association of Counties (MACo) **SUPPORTS SB 516 WITH AMENDMENTS**. This bill seeks to implement a wide range of remaining matters regarding the governance, oversight, licensure, and taxation of the voter-approved adult use cannabis industry. Counties seek multiple changes – a re-framing of the bill’s revenue sharing structure, a clear authority for local jurisdictions to decline to play host to related facilities, and clarifying language regarding local zoning.

#### *Revenue Sharing Nowhere Near Other States’ Systems*

Maryland has joined 20 other states in making cannabis use legal under state law. While implementation across jurisdictions has been a variable as different states have taken a variety of approaches, one commonality is that virtually all states have empowered a meaningful local revenue source to support local services. Some have fully authorized local excise taxes where rates are set and collections are overseen locally. Others have authorized local sales taxes at either standardized or variable rates, locally. Maryland legislation introduced during recent sessions, prior to voter approval, included a 3% local tax rate.

SB 516 proposes a different model, unusual in its design but structurally similar to two other states farther along in implementation – a statewide tax, with distributions to local governments. Michigan collects a 10% tax, but distributes the equivalent of a 3% tax to its local governments. New York State, similarly, collects a 13% tax, and distributes a 4% tax locally. SB 516, however, proposes a local distribution of a remarkably small share – the equivalent of a 0.09% local tax, across the counties and municipalities playing host to retail licensees.

Local governments do not contest the policy decision to avoid overburdening this new industry with unreasonable taxes, in the interests of avoiding counterproductive incentives.

Taxes on cannabis, under any scenario, will not create the resources to “fund the Blueprint” or any other large-scale initiative at either the state or local level.

SB 516, however – either by design, or by oversight – specifies that the local share of revenue is set at 1.5%. Not at an effective tax rate of 1.5%, but at 1.5% of the state’s modest sales tax yield... **translating to an effective local tax rate of 0.09%.**

A local tax rate of 1.5% (one fourth of the state sales tax collected) would still be lower than the other states employing the Maryland model, but would at least represent a good faith shared distribution of revenues. Local governments are granted no revenue authority at all in SB 516, in contrast to the State-established regime for county-level Boards of License Commissioners with license and penalty revenue capacity of their own. *Counties defer to the State on the appropriate amount of taxes to place upon the newly created industry, but respectfully request a realistic division of whatever revenue stream arises from that system. A 30% share to local governments would fit with other states employing the all-state collection system envisioned in this bill, but the current trivial distribution does not reasonably support local services.*

#### *Local Government “Opt Out” Authority*

Most states implementing adult use cannabis have granted deference to local jurisdictions who, through local enactments, decline to play host to certain facilities (either growing/cultivation or retail/dispensary). Even the most well-known states like Colorado and Washington – seen as vanguards of “legal cannabis” – took measures to ensure community input and a process for opting out.

SB 516 includes no such provision, effectively denying this level of local flexibility. Voter support for the broadly-worded measure to legalize the use of cannabis, motivated by any number of reasons, does not necessarily translate to voter support for the placement of facilities across each jurisdiction, district, precinct, or neighborhood. *Local governments, through their public-driven processes, should retain the right to guide this implementation (facility location) at the local level.*

#### *Zoning Language Should Explicitly Protect Obvious Safeguards*

SB 516 makes a clear effort to grant zoning authority to local governments, but its wording may leave that intention subject to legal challenge. On page 48, the bill specifies that a local jurisdiction may “establish reasonable zoning for cannabis businesses,” and on page 49, continues that a local jurisdiction may not “establish zoning or other requirements that unduly

burden a cannabis licensee.” These phrases introduce undefined terms that would effectively defer to the courts to set the true standard for what is reasonable or unduly burdensome.

Local governments, when siting certain facilities like adult-only retail locations, may rightfully seek to create guidance to recognize the surrounding area to any such facility. A county may seek to create a minimum distance from a school or other sensitive facility as a condition of zoning approval, or require certain roadway setbacks or advertising limitations. In each case, licensees seem to have a direct cause of action to contest even modest local restrictions under the new Section 36-405. *Counties would welcome language to add more clarity that such implementation paths are fully expected by the bill, and are among the matters to be considered in the main as “reasonable” and would not “unduly burden” the licensee.*

MACo would gladly work with Committee Counsel to develop modest amendment language to clarify this intended role of local oversight, and hopefully smoothen the bill’s implementation. The most straightforward language seems to be: simply subject licensed retailers under this new law to “zoning” rather than the newly-coined “reasonable zoning” and remove references to zoning from the “unduly burden” clause in the bill.

#### *Public Employers May Need to Retain “Drug Free” Standards*

The ongoing friction between state laws legalizing cannabis and federal laws continuing to make the substance illegal raises practical matters, most notably in employment settings. On numerous bills introduced in Maryland in recent years, during the full implementation of the medical cannabis program, this concern has been reliably attended to. Local government public safety agencies, in specific, often depend heavily on support from federal grants and collaboration, much of which obligates a drug-free workplace, including cannabis use. *SB 516 should clearly authorize, at the very least, this narrow exception to any general provisions regarding standards and limitations on employers with respect to cannabis.*

Overall, SB 516 has broad provisions to advance social justice, and promote fairness in the setup of this newly legal industry. Counties advance these matters to be productive participants in the development of a final scheme to bring about the voters’ wishes reasonably, with appropriate support for local services and governance. For these reasons, MACo **SUPPORTS SB 516 WITH AMENDMENTS** and welcomes the chance to work with the Committee on changes to the bill’s language described herein.

**SB0516-2023\_MDNORML.pdf**

Uploaded by: Miguel Jones

Position: FWA





Contact:

Luke Jones, Director of Legislative Affairs  
Maryland NORML  
Luke.MDNORML@gmail.com

750 Thayer Ave.  
Silver Spring, MD 20910  
(202) 285-3199

Submitted to:

Maryland House of Delegates, Senate Finance Committee  
Annapolis, MD - March 8, 2023

Testimony from the Maryland State Chapter of the  
National Organization for the Reform of Marijuana Laws (NORML)

Favorable with Amendments: SB0516 (Cannabis Reform)

**“If I can’t grow my own cannabis, it’s not actually legal.”**  
*- Maryland adult, veteran, husband, father, and state-agency employee*

*Disclaimer: Maryland NORML has no paid staff – we are entirely energized by a core group of citizen volunteers and more than 5,000 other Marylanders committed to ending marijuana prohibition and establishing a regulated cannabis commercial market for adults who choose to use marijuana responsibly. I do not now and never have had any stake or investment of any kind in any cannabis enterprise, nor does anyone in my family, and I have never received any fee or remuneration for consulting with any cannabis enterprise. As an organization, we have worked to reform state and federal marijuana laws for more than 50 years.*

We request the following AMENDMENTS to SB0556 before favorable consideration:

1. Align medical and adult-use cannabis possession and home cultivation protections (36–302(B), (G), strike “A qualifying patient” and insert “An adult”). In current form, this bill establishes two different enforcement standards for Maryland adults: one for “qualifying patients” and a different standard for all other adults. This two-tiered system increases enforcement complexity and disparate treatment – it leads police officers to ask intrusive personal medical questions, advantages financially secure adults who are easily able to meet the “qualifying patient” standard, and severely disadvantages low-income adults who are less likely to work with a doctor or pay the necessary medical enrollment or legal defense fees. A uniform “personal use” standard for all adults across the state is easier for everyone involved and would put Maryland on par with VA and DC – **failure to make this change would leave Maryland citizens under the most punitive system in the region with the highest risk of avoidable police encounters.**

2. The law must also clarify that employees cannot be fired exclusively for a positive cannabis drug test; legally using cannabis when not on-the-clock must not be grounds for dismissal. Employers may fire an employee for the normal reasons, but employees should not be punished simply for having legally consumed cannabis during personal time. This will also prevent deaths by helping Marylanders take advantage of the legal medical cannabis program instead of using deadly opioids.





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3. Cottage industry production is an American tradition and has been part of the Maryland economy since time immemorial – the law must allow jurisdictions to license very small “cottage industry” cannabis producers (up to 1,500 square feet) who would then have their cannabis tested, processed, labeled, and sold by state-licensed and regulated businesses. We do not advocate for unregulated craft producers, but citizens who wish to produce cannabis in small, “craft” batches and bring it to consumers through the legal, regulated market should have access to a business license, not jail time. Many of our state licensed dispensaries support this program because it allows them to partner with local producers, carry unique products, and helps eliminate unregulated activity. Individuals who wish to “come out of the shadows” will do so if given the opportunity to “get right with the law.” Providing eager, aspiring growers with a legal pathway to “give it a try” is *essential* for eliminating the illicit market because it gives them a way to put their surplus under a regulated point-of-sale instead of falling into the temptation of making unregulated sales. These small “cottage industry” craft producers are hobbyists, not traffickers, and would not jeopardize the financial stability of larger state licensees authorized to produce up to 10,000 square feet or larger. (36-405, insert “(3) establish reasonable licensing programs for cottage-industry cannabis cultivation by residents, not to exceed 1,500 sq feet of total indoor and outdoor canopy.)

**With these amendments in mind, we request favorable consideration.**

//s//

M. Luke Jones, Maryland NORML

**customer reviews.pdf**

Uploaded by: Nicholas Patrick

Position: FWA

★★★★★ 3 years ago

Meg and Nick are informative, friendly and the most helpful CBD sellers I've spoken to. I was impressed with how much knowledge and the time and effort they put into researching and testing the products they sell. Every question I had was answered in a passionate and articulate way that made me feel safe and more knowledgeable about what I was buying/using. They listened to exactly what I needed for medicinal use and we're able to present me a multitude of products I could choose from. They have well organized stores in which I could read materials myself and view tons of products and options they had available. They are not trying to just sell products, they want to inform consumers with proper information and guide them to see all the benefits that CBD has to offer. They can really help individuals see past all the marijuana talk and show communities that CBD is more than a recreational item.

★★★★★ a year ago

This place is amazing! Two locations one in Ellicott City the other in Glen Burnie. Owners Nick and Megan are awesome and they have staffed their stores with amazing team members. Katie and Stephanie in the Ellicott City location are Gurus (extremely knowledgeable). My dog (Johnny - 3 years old at the time) has seizures and CBD oil was a last ditch effort (before putting him down) as he was on 4 medications and specialty food daily with suppositories (for emergencies). My husband asked the neurologist his opinion on CBD oil and we were told well you tried everything else. Went to the location and it was a life changer. The CBD oil has given my dog his life back!!! If he has a seizure it maybe 1 or 2 a year versus 5 to 6 daily. And if you don't believe it work his last hospital stay which falls under the 1 or 2 for the year was so intense that the bolus medication could not control the seizures with all of his other medications. So the emergency vet staff told us to bring his CBD oil...our Johnny was home two days later (he had been in the hospital for 4 days without his oil). By the way Johnny is now 6 years old.. we were told he wouldn't live past 4 because of the seizures.

CBD oil (products) help with seizures, sleep, anxiety, muscle spasms, injuries and pain. It's amazing. Don't believe me...give them a call, stop by, make a purchase and thank me later.





**Sara Roache**

5 reviews



★★★★★ 2 years ago

I absolutely LOVE Embrace CBD!! I have been going to Embrace CBD for all my CBD needs. I am Medical Cannabis Patient and I still choose to go to Embrace CBD over the cannabis dispensaries for my CBD needs. They have such a huge variety of CBD products and even some of the harder to find ones like CBG. They have a HUGE binder full of all the lab results for every **product** they carry. They are extremely patient and will fully educate you on anything and help you figure out what would work best for you. It's local family owned and I am on a first name basis with the owners who I happen to run into around town. Now if that's not being a part of the Community you serve, IDK what is! Plus they always email you coupons! Even if you're a little scared and not sure yet about CBD, Embrace CBD is the best place to go



**Embrace CBD Glen Burnie - Wellness Center (Owner)**

2 years ago

Wow! Thank you for this review Sarah!!! This sums up our mission so well! We appreciate you!

★★★★★ a year ago

The team at Embrace CBD is great, knowledgeable, and always provide exceptional customer service. The **products** they carry are lab tested and backed by information easily available.

I have visited locations at Glen Burnie and Ellicott City, both are awesome. They are definitely worth a visit. For those who may not be sure about the **products** or may have questions should visit or give them a call. They strive to have well informed customers who can be confident in the **products** they are purchasing.

I can tell you I shop exclusively with Embrace CBD simply from being blown away the first time I stopped in. I was amazed with the well informed staff and information given with the **products**. I have been in many times now and still continue to receive the same great customer service. Be sure to sign up for special offers and discounts. Just an added bonus for **product** at an already great price. Stay well!

★★★★★ a year ago

The ladies at the counter were so sweet and knowledgeable. They didn't try to sell me anything I didn't need. I tried to explain the kind of pain my mother was experiencing and they did everything they could to create a formula that was going to help her stop suffering as much. They really earned my trust and respect because I only have one mother. They did everything they could to try to help me... they gave my mom hope and relief because their product works!!!! Thanks again



My wife has had struggles with pain management her entire adult life. Traditional pain medicine (narcotics) makes her so sick that it isn't worth taking for her. We found embrace and was instantly connected with some knowledgeable, caring and kind staff behind the counter of the store. We were greeted first and that was the very BEST way to make us comfortable. I was worried they'd be pushy and very "sales" minded! Stephanie was the first of many staff who made us both very comfortable. Courtney was the next staff member that went above and beyond! Every question was heard and answered, concerns or confusion was met again with kindness and professionalism. It didn't take long before my wife and I looked forward to going back each and every time we need to. We have even had the privilege to meet the owner. He shared with us his passion for what he does and it was clear that His mentality was contagious and it has affected the atmosphere of The Embrace Wellness Center. Our lives have both been greatly benefited and we are truly thankful. For me the greatest difference here is that instead of grabbing customers and selling them **products** Mr. Nick and all the staff we have ever interacted with unquestionably EMBRACED us with the kind of care you hope to find when feeling like you have little choice but to accept life as it is!

Do yourself a favor and experience this for yourself. We love Embrace and the staff are more like friends/family than mere "employees" to us.



★★★★★ 2 years ago

Honestly this store is an absolute dream. I'm conscious about where I purchase CBD products, because there are a lot of big claims, fat lies, and dangerous and ineffective **products** out there. I called in to purchase some CBD products to help with a serious eczema flare up I was having, and Stephanie answered the phone and was truly 10/10 the entire way through. She has a ton of knowledge to share and plenty of consideration and compassion to extend to her customers as well. For example, I have a variety of food allergies, and when I asked about what CBD creams they have in stock, she took care to ask if I had any allergies to any **products**, and then offered to read the ingredients on each label to me (happy tears starting right about now). Stephanie also mentioned a couple **products** I may find useful based on our conversation (and, surprise - I love them all!). I also asked if they could accommodate a curbside purchase in light of COVID-19, which Stephanie happily accommodated. I cannot recommend Embrace CBD highly enough - even though my boyfriend is a cannabis cultivator by career, I *\*will\** be finding an excuse to stop in to Embrace every time I'm in the area and support this business! These people are doing CBD right!!

★★★★★ a year ago

These folks have it very together. They take time to really listen to your situation rather than begin suggesting a **product**. They have a very knowledgeable staff who are always welcoming and take time to explain how CBD aids in helping. The prices are affordable and the quality is amazing. I base the quality on their high standards expected for the **products** they carry. They encourage feedback about your chosen **product**. To me this is something akin to what a doctor would do with prescribed medications. They seek follow-up about the chosen **product**. It is, in my opinion, typical of a very good support system. It shows they really care about their customers well-being.

★★★★★ 2 years ago

I've been an Embrace CBD WELLNESS customer since the new store opened in Ellicott City. At Embrace, you'll find that not only do the store owners (Nick and Megan), have a thorough knowledgeable of the products, but so does each staff member, anytime you visit. They make excellent recommendations, are always pleasant, and they take pride in the products. Go in and browse...chat with them...get a hemp education (which includes the science, history and facts surrounding the plant) they have literature explaining the processes, therapeutic plant compounds, and you'll discover the power of nature and what works best for you! You get to enjoy continuous sales, surprise discounts, and store specials. You can always expect all natural ingredients, exceptional and friendly service, and an exceptionally clean, clean, clean store! I won't shop anywhere else...they've truly earned my trust and their products truly give me a peace of mind!

# **Full Spectrum Products COAs-merged-compressed.pdf**

Uploaded by: Nicholas Patrick

Position: FWA





# Certificate of Analysis

QA SAMPLE - INFORMATIONAL ONLY

1 of 3

ICAL ID: 20230210-021  
Sample: CA230209-031-054  
ITM001286 - cbdMD-TPM-MT-1500-FS  
Strain: ITM001286 - cbdMD-TPM-MT-1500-FS  
Category: Ingestible  
Type: Tincture

CBDMD  
Lic. #  
10130 Perimeter Pkwy  
Charlotte, NC 28216  
Lic. #

Batch#: 30131T1.1  
Batch Size Collected:  
Total Batch Size:  
Collected: 02/14/2023; Received: 02/14/2023  
Completed: 02/14/2023

Moisture <b>NT</b>	Δ9-THC <b>73.29 mg/unit</b>	CBD <b>1,702.81 mg/unit</b>	Total Cannabinoids <b>1,954.41 mg/unit</b>	Total Terpenes <b>NT</b>
Water Activity <b>NT</b>				

Summary	SOP Used	Date Tested	
Batch			Pass
Cannabinoids	POT-PREP-004 High	02/13/2023	Complete
Residual Solvents	RS-PREP-001	02/13/2023	Pass
Microbials	MICRO-PREP-001	02/13/2023	Pass
Mycotoxins	PESTMICO-LC-PREP-001	02/13/2023	Pass
Heavy Metals	HM-PREP-001	02/13/2023	Pass
Pesticides	PESTMICO-LC-PREP-001 / PEST-GC-PREP-001	02/13/2023	Pass



Scan to see results

## Cannabinoid Profile

1 Unit = bottle, 29.8 g. 1 mL = 0.95 g.

Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g	mg/mL	mg/unit	Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g	mg/mL	mg/unit
THCa	0.1841	0.0614	ND	ND	ND	ND	CBGa	0.2669	0.0890	ND	ND	ND	ND
Δ9-THC	0.0794	0.0265	0.246	2.46	2.34	73.29	CBG	0.0915	0.0305	0.161	1.61	1.52	47.83
Δ8-THC	0.0824	0.0275	ND	ND	ND	ND	CBN	0.1112	0.0371	0.057	0.57	0.54	16.93
THCV	0.0714	0.0238	ND	ND	ND	ND	<b>Total THC</b>			<b>0.25</b>	<b>2.46</b>	<b>2.34</b>	<b>73.29</b>
CBDa	0.0880	0.0293	ND	ND	ND	ND	<b>Total CBD</b>			<b>5.71</b>	<b>57.14</b>	<b>54.28</b>	<b>1702.81</b>
CBD	0.0755	0.0252	5.714	57.14	54.28	1702.81	<b>Total</b>			<b>6.56</b>	<b>65.58</b>	<b>62.30</b>	<b>1954.41</b>
CBDV	0.0741	0.0247	0.086	0.86	0.82	25.75							
CBC	0.2221	0.0740	0.295	2.95	2.80	87.81							

Total THC=THCa \* 0.877 + Δ9-THC; Total CBD = CBDa \* 0.877 + CBD. LOD= Limit of Detection, LOQ= Limit of Quantitation, ND= Not Detected, NR= Not Reported. Potency is reported on a dry weight basis. Instrumentation and analysis SOPs used: Cannabinoids:UHPLC-DAD(POT-INST-005),Moisture:Moisture Analyzer(MOISTURE-001),Water Activity:Water Activity Meter(WA-INST-002), Foreign Material:Microscope(FOREIGN-001). Density measured at 19-24 °C, Water Activity measured at 0-90% RH. All QA submitted by the client, All CA State Compliance sampled using SAMPL-SOP-001.

## Terpene Profile

Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g	Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g
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NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: HS-GC-MS; samples analyzed according to SOP TERP-INST-003.



Infinite Chemical Analysis Labs  
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Lic# C8-0000047-LIC

*Josh M Swider*

Josh Swider  
Lab Director, Managing Partner  
02/14/2023

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www.confidentcannabis.com



This product has been tested by Infinite Chemical Analysis, LLC using valid testing methodologies and a quality system as required by state law. All LQC samples were performed and met the prescribed acceptance criteria in 16 CCR section 15730, pursuant to 16 CCR section 15726(e)(13). Values reported relate only to the product tested. Infinite Chemical Analysis, LLC makes no claims as to the efficacy, safety or other risks associated with any detected or non-detected levels of any compounds reported herein. This Certificate shall not be reproduced except in full, without the written approval of Infinite Chemical Analysis, LLC.



# Certificate of Analysis

QA SAMPLE - INFORMATIONAL ONLY

2 of 3

ICAL ID: 20230210-021  
Sample: CA230209-031-054  
ITM001286 - cbdMD-TPM-MT-1500-FS  
Strain: ITM001286 - cbdMD-TPM-MT-1500-FS  
Category: Ingestible  
Type: Tincture

CBDMD  
Lic. #  
10130 Perimeter Pkwy  
Charlotte, NC 28216  
Lic. #

Batch#: 30131T1.1  
Batch Size Collected:  
Total Batch Size:  
Collected: 02/14/2023; Received: 02/14/2023  
Completed: 02/14/2023

## Residual Solvent Analysis

Category 1	LOQ	LOD	Limit	Status	Category 2	LOQ	LOD	Limit	Status	Category 2	LOQ	LOD	Limit	Status			
	µg/g	µg/g	µg/g	µg/g		µg/g	µg/g	µg/g	µg/g		µg/g	µg/g	µg/g	µg/g			
1,2-Dichloro-Ethane	ND	0.31	0.1032	1	Pass	Acetone	ND	51.246	2.572	5000	Pass	n-Hexane	ND	0.931	0.31	290	Pass
Benzene	ND	0.088	0.023	1	Pass	Acetonitrile	ND	0.798	0.266	410	Pass	Isopropanol	ND	5.037	1.679	5000	Pass
Chloroform	ND	0.174	0.058	1	Pass	Butane	ND	4.849	1.114	5000	Pass	Methanol	ND	4.665	1.555	3000	Pass
Ethylene Oxide	ND	0.757	0.252	1	Pass	Ethanol	ND	40.542	13.513	5000	Pass	Pentane	ND	17.255	5.752	5000	Pass
Methylene-Chloride	ND	0.729	0.148	1	Pass	Ethyl-Acetate	ND	2.288	0.436	5000	Pass	Propane	ND	26.11	8.703	5000	Pass
Trichloroethene	ND	0.19	0.063	1	Pass	Ethyl-Ether	ND	2.869	0.593	5000	Pass	Toluene	ND	0.864	0.136	890	Pass
						Heptane	12.8	6.548	2.183	5000	Pass	Xylenes	ND	0.857	0.241	2170	Pass

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: HS-GC-MS; samples analyzed according to SOP RS-INST-003.

## Heavy Metal Screening

	LOQ	LOD	Limit	Status	
	µg/g	µg/g	µg/g	µg/g	
Arsenic	ND	0.009	0.003	1.5	Pass
Cadmium	ND	0.002	0.001	0.5	Pass
Lead	<LOQ	0.004	0.001	0.5	Pass
Mercury	ND	0.014	0.005	3	Pass

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: ICP-MS; samples analyzed according to SOP HM-INST-003.

## Microbiological Screening

	Limit	Result	Status
	CFU/g	CFU/g	
Aspergillus flavus		NR	NT
Aspergillus fumigatus		NR	NT
Aspergillus niger		NR	NT
Aspergillus terreus		NR	NT
STEC		Not Detected	Pass
Salmonella SPP		Not Detected	Pass

ND=Not Detected. Analytical instrumentation used:qPCR; samples analyzed according to SOP MICRO-INST-001.



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*Josh M Swider*

Josh Swider  
Lab Director, Managing Partner  
02/14/2023

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3 of 3

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Batch#: 30131T1.1  
Batch Size Collected:  
Total Batch Size:  
Collected: 02/14/2023; Received: 02/14/2023  
Completed: 02/14/2023

## Chemical Residue Screening

Category 1	LOQ	LOD	Status	Mycotoxins	LOQ	LOD	Limit	Status		
	µg/g	µg/g	µg/g		µg/kg	µg/kg	µg/kg	µg/kg		
Aldicarb	ND	0.030	0.009	Pass	B1	ND	6.2	2.05	Tested	
Carbofuran	ND	0.030	0.002	Pass	B2	ND	5	1.63	Tested	
Chlordane	ND	0.075	0.025	Pass	G1	ND	5.38	1.77	Tested	
Chlorfenapyr	ND	0.075	0.025	Pass	G2	ND	5	1.02	Tested	
Chlorpyrifos	ND	0.030	0.008	Pass	Ochratoxin A	ND	16.41	5.42	20	Pass
Coumaphos	ND	0.030	0.005	Pass	Total Aflatoxins	ND		20	Pass	
Daminozide	ND	0.033	0.011	Pass						
Dichlorvos	ND	0.030	0.007	Pass						
Dimethoate	ND	0.030	0.007	Pass						
Ethoprophos	ND	0.030	0.004	Pass						
Etofenprox	ND	0.030	0.006	Pass						
Fenoxycarb	ND	0.030	0.006	Pass						
Fipronil	ND	0.030	0.008	Pass						
Imazalil	ND	0.030	0.009	Pass						
Methiocarb	ND	0.030	0.005	Pass						
Mevinphos	ND	0.032	0.011	Pass						
Paclbutrazol	ND	0.030	0.006	Pass						
Parathion Methyl	ND	0.024	0.008	Pass						
Propoxur	ND	0.030	0.005	Pass						
Spiroxamine	ND	0.030	0.003	Pass						
Thiacloprid	ND	0.030	0.002	Pass						

Category 2	LOQ	LOD	Limit	Status	Category 2	LOQ	LOD	Limit	Status		
	µg/g	µg/g	µg/g	µg/g		µg/g	µg/g	µg/g	µg/g		
Abamectin	ND	0.039	0.013	0.3	Pass	Kresoxim Methyl	ND	0.030	0.007	1	Pass
Acephate	ND	0.063	0.021	5	Pass	Malathion	ND	0.030	0.005	5	Pass
Acequinocyl	ND	0.035	0.011	4	Pass	Metalaxyl	ND	0.030	0.003	15	Pass
Acetamiprid	ND	0.030	0.006	5	Pass	Methomyl	ND	0.030	0.006	0.1	Pass
Azoxystrobin	ND	0.030	0.003	40	Pass	Myclobutanil	ND	0.030	0.007	9	Pass
Bifenazate	ND	0.030	0.005	5	Pass	Naled	ND	0.030	0.005	0.5	Pass
Bifenthrin	ND	0.030	0.006	0.5	Pass	Oxamyl	ND	0.030	0.009	0.3	Pass
Boscalid	ND	0.030	0.007	10	Pass	Pentachloronitrobenzene	ND	0.054	0.018	0.2	Pass
Captan	ND	0.358	0.120	5	Pass	Permethrin	ND	0.030	0.002	20	Pass
Carbaryl	ND	0.030	0.004	0.5	Pass	Phosmet	ND	0.030	0.005	0.2	Pass
Chlorantraniliprole	ND	0.030	0.006	40	Pass	Piperonyl Butoxide	ND	0.030	0.006	8	Pass
Clofentezine	ND	0.030	0.005	0.5	Pass	Prallethrin	ND	0.055	0.018	0.4	Pass
Cyfluthrin	ND	0.056	0.019	1	Pass	Propiconazole	ND	0.037	0.012	20	Pass
Cypermethrin	ND	0.044	0.015	1	Pass	Pyrethrins	ND	0.030	0.002	1	Pass
Diazinon	ND	0.030	0.009	0.2	Pass	Pyridaben	ND	0.030	0.005	3	Pass
Dimethomorph	ND	0.030	0.009	20	Pass	Spinetoram	ND	0.030	0.003	3	Pass
Etoxazole	ND	0.030	0.003	1.5	Pass	Spinosad	ND	0.030	0.003	3	Pass
Fenhexamid	ND	0.030	0.008	10	Pass	Spiromesifen	ND	0.030	0.005	12	Pass
Fenpyroximate	ND	0.030	0.005	2	Pass	Spirotetramat	ND	0.030	0.006	13	Pass
Flonicamid	ND	0.046	0.015	2	Pass	Tebuconazole	ND	0.030	0.009	2	Pass
Fludioxonil	ND	0.048	0.016	30	Pass	Thiamethoxam	ND	0.030	0.006	4.5	Pass
Hexythiazox	ND	0.031	0.010	2	Pass	Trifloxystrobin	ND	0.030	0.002	30	Pass
Imidacloprid	ND	0.030	0.009	3	Pass						

### Other Analyte(s):

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: LC-MS-MS & GC-MS-MS; samples analyzed according to SOPs PESTMYCO-LC-INST-004 and PEST-GC-INST-003.



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Lic# C8-000047-LIC

*Josh M Swider*

Josh Swider  
Lab Director, Managing Partner  
02/14/2023

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## Certificate of Analysis



Sample Name	ITM001286 - cbdMD-TPM-MT-1500-FS	ICAL ID	20230210-021
Batch	30131T1.1	Registering Laboratory	San Diego
Client	CBDMD	Contact	Customer Service Team
Address		Address	8312 Miramar Mall San Diego, CA 92121
Telephone		Telephone	(858) 623-2740
Email		Email	questions@infinitecal.com
Sampler		COA Issue Date	February 16, 2023

This report supersedes any previous revision with this reference. This document must not be reproduced, except in full. If samples were provided by the customer, results apply only to the samples 'as received' and responsibility for representative sampling rests with the customer. Water results are reported on an 'as is' basis. Infinite Chemical Analysis Labs, LLC makes no claims pertaining to the efficacy, safety, or other risks associated with any detected or non-detected levels of any compounds reported herein.

### Definitions

| <: Less Than | >: Greater Than | RP: Result Pending | MPN: Most Probable Number | CFU: Colony Forming Units | ---: Not Requested | NA: Not Applicable | ND: Not Detected | MDL: Method Detection Limit | LCMRL: Lowest Concentration Minimum Reporting Level | NT: Not Tested | ~: Estimated | TBA: To Be Advised | TNTC: Too numerous to count

### Microbial Plate Panel

Analyte	CFU/g	MDL	Client Limit <sup>1</sup>	Status <sup>2</sup>
Aerobic (APC)	<MDL	10	---	---
Coliforms	NT	10	---	---
<i>E. coli</i>	NT	10	---	---
Yeast & Mold	<MDL	10	---	---
<i>Enterobacteriaceae</i>	NT	10	---	---
<i>Salmonella spp.</i>	NT	10	---	---
<i>Listeria spp.</i>	<MDL	10	---	---

### Analysis Location

All analyses were completed by Infinite Chemical Analysis – San Diego.

### Analysis Comments

Method ID: MICRO-PLATE-001

<sup>1</sup>Client limit is self-selected and will be replaced by official CA state limits when they become available.

<sup>2</sup>Status of Pass/Fail based on client limit selected.

Josh Swider  
Lab Director, CEO  
February 16, 2023



## Certificate of Analysis

### Open Book Extracts

317 Lucy Garrett Road  
Roxboro North Carolina 27574 United States

<b>Sample Name:</b>	<b>cbdMD-TPM-MT-1500-FS</b>	<b>Eurofins Sample:</b>	<b>12546433</b>
<b>Project ID</b>	OPEN_BO_E-20230113-0007	<b>Receipt Date</b>	16-Jan-2023
<b>PO Number</b>	CVD	<b>Receipt Condition</b>	Ambient temperature
<b>Lot Number</b>	30131T1.1	<b>Login Date</b>	13-Jan-2023
<b>Sample Serving Size</b>	1 mL	<b>Date Started</b>	16-Jan-2023
		<b>Sampled</b>	Sample results apply as received
		<b>Online Order</b>	901-2023-E002618

Analysis	Specifications	Result
<b>Density by Gravimetric Analysis</b>		
Density		0.946 g/mL
<b>Determination of Melatonin by UPLC</b>		
Melatonin	5 - 6 mg/Serving Size	6.87 mg/Serving Size

Method References	Testing Location
<b>Density by Gravimetric Analysis (SPGP_S)</b>	<b>Food Integrity Innovation-Brea</b> 2951 Saturn Street, Unit C Brea, CA 92821 USA
NIST Handbook 133 - Checking the Net Contents of Packaged Goods, 2015 Edition (Modified)	
<b>Determination of Melatonin by UPLC (OC_MLTON_S)</b>	<b>Food Integrity Innovation-Brea</b> 2951 Saturn Street, Unit C Brea, CA 92821 USA
Internally Developed Method	

Testing Location(s)	Released on Behalf of Eurofins by
---------------------	-----------------------------------

**Food Integrity Innovation-Brea** Jason Mulligan - President Eurofins Botanical Testing Brea

Eurofins Food Chemistry Testing US, Inc.  
2951 Saturn Street  
Unit C  
Brea CA 92821  
800-675-8375

These results apply only to the items tested. This certificate of analysis shall not be reproduced, except in its entirety, without the written approval of Eurofins. Measurement uncertainty for individual analyses can be obtained upon request.



# Certificate of Analysis

QA SAMPLE - INFORMATIONAL ONLY

1 of 3

ICAL ID: 20220916-003  
Sample: CA220916-016-085  
cbdMD-TIN-CM-6000-FS  
Strain: cbdMD-TIN-CM-6000-FS  
Category: Ingestible

cbdMD  
Lic #  
10130 Perimeter Pkwy  
Charlotte, NC 28216

Batch#: 22571T6.1  
Batch Size Collected:  
Total Batch Size:  
Collected: 09/19/2022; Received: 09/19/2022  
Completed: 09/19/2022

Lic #

Moisture <b>NT</b> Water Activity <b>NT</b>	<b>Δ9-THC</b> <b>82.80 mg/unit</b>	<b>CBD</b> <b>6,831.47 mg/unit</b>	<b>Total Cannabinoids</b> <b>7,112.31 mg/unit</b>	<b>Total Terpenes</b> <b>3.662 mg/g</b>
--	---------------------------------------	---------------------------------------	--	--

## Summary

Summary	SOP Used	Date Tested	
Batch			Pass
Cannabinoids	POT-PREP-004 High	09/19/2022	Complete
Terpenes	TERP-PREP-001	09/19/2022	Complete
Residual Solvents	RS-PREP-001	09/19/2022	Pass
Microbials	MICRO-PREP-001	09/19/2022	Pass
Mycotoxins	PESTMYCO-LC-PREP-001	09/17/2022	Pass
Heavy Metals	HM-PREP-001	09/16/2022	Pass
Pesticides	PESTMYCO-LC-PREP-001/ PEST-GC-PREP-001	09/17/2022	Pass



Scan to see results

## Cannabinoid Profile

1 Unit = bottle, 30.47 g.

Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g	mg/unit	Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g	mg/unit
THCa	0.1841	0.0614	ND	ND	ND	CBDV	0.0741	0.0247	0.163	1.63	49.64
Δ9-THC	0.0794	0.0265	0.272	2.72	82.80	CBN	0.1112	0.0371	0.042	0.42	12.80
Δ8-THC	0.0824	0.0275	ND	ND	ND	CBGa	0.2669	0.0890	ND	ND	ND
THCV	0.0714	0.0238	ND	ND	ND	CBG	0.0915	0.0305	0.074	0.74	22.46
CBDa	0.0880	0.0293	ND	ND	ND	CBC	0.2221	0.0740	0.371	3.71	113.14
CBD	0.0755	0.0252	22.420	224.20	6831.47	<b>Total THC</b>			<b>0.27</b>	<b>2.72</b>	<b>82.80</b>
						<b>Total CBD</b>			<b>22.42</b>	<b>224.20</b>	<b>6831.47</b>
						<b>Total</b>			<b>23.34</b>	<b>233.42</b>	<b>7112.31</b>

Total THC=THCa \* 0.877 + Δ9-THC; Total CBD = CBDa \* 0.877 + CBD. LOD= Limit of Detection, LOQ= Limit of Quantitation, ND= Not Detected, NR= Not Reported. Potency is reported on a dry weight basis. Instrumentation and analysis SOPs used: Cannabinoids:UHPLC-DAD(POT-INST-005),Moisture:Moisture Analyzer(MOISTURE-001),Water Activity:Water Activity Meter(WA-INST-002), Foreign Material:Microscope(FOREIGN-001). Density measured at 19-24 °C, Water Activity measured at 0-90% RH. All QA submitted by the client, All CA State Compliance sampled using SAMPL-SOP-001.

## Terpene Profile

Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g	Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g
α-Bisabolol	0.193	0.064	0.1370	1.370	Cedrol	0.207	0.069	ND	ND
δ-Limonene	0.449	0.150	0.0772	0.772	cis-Nerolidol	0.251	0.084	ND	ND
β-Caryophyllene	0.608	0.179	0.0648	0.648	Citronellol	0.598	0.120	ND	ND
α-Humulene	0.151	0.026	0.0352	0.352	δ-3-Carene	0.306	0.024	ND	ND
Menthol	0.215	0.072	0.0341	0.341	Eucalyptol	0.244	0.081	ND	ND
(-)-Guaiaol	0.154	0.029	0.0179	0.179	Fenchol	0.152	0.024	ND	ND
α-Cedrene	0.151	0.032	ND	ND	Fenchone	0.151	0.025	ND	ND
α-Pinene	0.151	0.022	ND	ND	γ-Terpinene	0.152	0.033	ND	ND
α-Terpinene	0.163	0.054	ND	ND	Geraniol	0.609	0.114	ND	ND
α-Terpineol	0.154	0.033	ND	ND	Geranyl Acetate	0.151	0.030	ND	ND
β-Eudesmol	0.227	0.076	ND	ND	Isoborneol	0.151	0.033	ND	ND
β-Myrcene	0.153	0.015	<LOQ	<LOQ	Linalool	0.154	0.036	ND	ND
β-Pinene	0.306	0.027	ND	ND	Pulegone	0.169	0.056	ND	ND
Borneol	0.154	0.024	ND	ND	p-Cymene	0.175	0.058	ND	ND
Camphene	0.151	0.017	ND	ND	Terpinolene	0.154	0.013	ND	ND
Camphor	0.306	0.055	ND	ND	trans-Nerolidol	0.222	0.074	ND	ND
Caryophyllene Oxide	0.602	0.113	<LOQ	<LOQ	<b>Total</b>			<b>0.3662</b>	<b>3.662</b>

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: HS-GC-MS; samples analyzed according to SOP TERP-INST-003.



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*Josh M Swider*

Josh Swider  
Lab Director, Managing Partner  
09/19/2022

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# Certificate of Analysis

QA SAMPLE - INFORMATIONAL ONLY

2 of 3

ICAL ID: 20220916-003  
Sample: CA220916-016-085  
cbdMD-TIN-CM-6000-FS  
Strain: cbdMD-TIN-CM-6000-FS  
Category: Ingestible

cbdMD  
Lic #  
10130 Perimeter Pkwy  
Charlotte, NC 28216  
Lic #

Batch#: 22571T6.1  
Batch Size Collected:  
Total Batch Size:  
Collected: 09/19/2022; Received: 09/19/2022  
Completed: 09/19/2022

## Residual Solvent Analysis

Category 1	LOQ	LOD	Limit	Status	Category 2	LOQ	LOD	Limit	Status	Category 2	LOQ	LOD	Limit	Status			
	µg/g	µg/g	µg/g	µg/g		µg/g	µg/g	µg/g	µg/g		µg/g	µg/g	µg/g	µg/g			
1,2-Dichloro-Ethane	ND	0.31	0.1032	1	Pass	Acetone	ND	51.246	2.572	5000	Pass	n-Hexane	ND	0.931	0.31	290	Pass
Benzene	ND	0.088	0.023	1	Pass	Acetonitrile	ND	0.798	0.266	410	Pass	Isopropanol	337.8	5.037	1.679	5000	Pass
Chloroform	ND	0.174	0.058	1	Pass	Butane	ND	4.849	1.114	5000	Pass	Methanol	ND	4.665	1.555	3000	Pass
Ethylene Oxide	ND	0.757	0.252	1	Pass	Ethanol	1459.5	40.542	13.513	5000	Pass	Pentane	ND	17.255	5.752	5000	Pass
Methylene-Chloride	ND	0.729	0.148	1	Pass	Ethyl-Acetate	ND	2.288	0.436	5000	Pass	Propane	ND	26.11	8.703	5000	Pass
Trichloroethene	ND	0.19	0.063	1	Pass	Ethyl-Ether	ND	2.869	0.593	5000	Pass	Toluene	ND	0.864	0.136	890	Pass
						Heptane	<LOQ	6.548	2.183	5000	Pass	Xylenes	ND	0.857	0.241	2170	Pass

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: HS-GC-MS; samples analyzed according to SOP RS-INST-003.

## Heavy Metal Screening

	LOQ	LOD	Limit	Status	
	µg/g	µg/g	µg/g	µg/g	
Arsenic	ND	0.009	0.003	1.5	Pass
Cadmium	ND	0.002	0.001	0.5	Pass
Lead	ND	0.004	0.001	0.5	Pass
Mercury	ND	0.014	0.005	3	Pass

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: ICP-MS; samples analyzed according to SOP HM-INST-003.

## Microbiological Screening

	Limit	Result	Status
	CFU/g	CFU/g	
Aspergillus flavus		NR	NT
Aspergillus fumigatus		NR	NT
Aspergillus niger		NR	NT
Aspergillus terreus		NR	NT
STEC		Not Detected	Pass
Salmonella SPP		Not Detected	Pass

ND=Not Detected. Analytical instrumentation used:qPCR; samples analyzed according to SOP MICRO-INST-001.



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Josh Swider  
Lab Director, Managing Partner  
09/19/2022

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3 of 3

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Sample: CA220916-016-085  
cbdMD-TIN-CM-6000-FS  
Strain: cbdMD-TIN-CM-6000-FS  
Category: Ingestible

cbdMD  
Lic #  
10130 Perimeter Pkwy  
Charlotte, NC 28216  
Lic #

Batch#: 22571T6.1  
Batch Size Collected:  
Total Batch Size:  
Collected: 09/19/2022; Received: 09/19/2022  
Completed: 09/19/2022

## Chemical Residue Screening

Category 1	LOQ	LOD	Status	Mycotoxins	LOQ	LOD	Limit	Status		
	µg/g	µg/g	µg/g		µg/kg	µg/kg	µg/kg	µg/kg		
Aldicarb	ND	0.030	0.009	Pass	B1	ND	6.2	2.05	Tested	
Carbofuran	ND	0.030	0.002	Pass	B2	ND	5	1.63	Tested	
Chlordane	ND	0.075	0.025	Pass	G1	ND	5.38	1.77	Tested	
Chlorfenapyr	ND	0.075	0.025	Pass	G2	ND	5	1.02	Tested	
Chlorpyrifos	ND	0.030	0.008	Pass	Ochratoxin A	ND	16.41	5.42	20	Pass
Coumaphos	ND	0.030	0.005	Pass	Total Aflatoxins	ND		20	Pass	
Daminozide	ND	0.033	0.011	Pass						
Dichlorvos	ND	0.030	0.007	Pass						
Dimethoate	ND	0.030	0.007	Pass						
Ethoprophos	ND	0.030	0.004	Pass						
Etofenprox	ND	0.030	0.006	Pass						
Fenoxycarb	ND	0.030	0.006	Pass						
Fipronil	ND	0.030	0.008	Pass						
Imazalil	ND	0.030	0.009	Pass						
Methiocarb	ND	0.030	0.005	Pass						
Mevinphos	ND	0.032	0.011	Pass						
Paclbutrazol	ND	0.030	0.006	Pass						
Parathion Methyl	ND	0.024	0.008	Pass						
Propoxur	ND	0.030	0.005	Pass						
Spiroxamine	ND	0.030	0.003	Pass						
Thiacloprid	ND	0.030	0.002	Pass						

Category 2	LOQ	LOD	Limit	Status	Category 2	LOQ	LOD	Limit	Status		
	µg/g	µg/g	µg/g	µg/g		µg/g	µg/g	µg/g	µg/g		
Abamectin	ND	0.039	0.013	0.3	Pass	Kresoxim Methyl	ND	0.030	0.007	1	Pass
Acephate	ND	0.063	0.021	5	Pass	Malathion	ND	0.030	0.005	5	Pass
Acequinocyl	ND	0.035	0.011	4	Pass	Metalaxyl	<LOQ	0.030	0.003	15	Pass
Acetamiprid	ND	0.030	0.006	5	Pass	Methomyl	ND	0.030	0.006	0.1	Pass
Azoxystrobin	ND	0.030	0.003	40	Pass	Myclobutanil	ND	0.030	0.007	9	Pass
Bifenazate	ND	0.030	0.005	5	Pass	Naled	ND	0.030	0.005	0.5	Pass
Bifenthrin	ND	0.030	0.006	0.5	Pass	Oxamyl	ND	0.030	0.009	0.3	Pass
Boscalid	ND	0.030	0.007	10	Pass	Pentachloronitrobenzene	ND	0.054	0.018	0.2	Pass
Captan	ND	0.358	0.120	5	Pass	Permethrin	ND	0.030	0.002	20	Pass
Carbaryl	ND	0.030	0.004	0.5	Pass	Phosmet	ND	0.030	0.005	0.2	Pass
Chlorantraniliprole	ND	0.030	0.006	40	Pass	Piperonyl Butoxide	ND	0.030	0.006	8	Pass
Clofentezine	ND	0.030	0.005	0.5	Pass	Prallethrin	ND	0.055	0.018	0.4	Pass
Cyfluthrin	ND	0.056	0.019	1	Pass	Propiconazole	ND	0.037	0.012	20	Pass
Cypermethrin	ND	0.044	0.015	1	Pass	Pyrethrins	ND	0.030	0.002	1	Pass
Diazinon	ND	0.030	0.009	0.2	Pass	Pyridaben	ND	0.030	0.005	3	Pass
Dimethomorph	ND	0.030	0.009	20	Pass	Spinetoram	ND	0.030	0.003	3	Pass
Etoxazole	ND	0.030	0.003	1.5	Pass	Spinosad	ND	0.030	0.003	3	Pass
Fenhexamid	ND	0.030	0.008	10	Pass	Spiromesifen	ND	0.030	0.005	12	Pass
Fenpyroximate	ND	0.030	0.005	2	Pass	Spirotetramat	ND	0.030	0.006	13	Pass
Flonicamid	ND	0.046	0.015	2	Pass	Tebuconazole	ND	0.030	0.009	2	Pass
Fludioxonil	ND	0.048	0.016	30	Pass	Thiamethoxam	ND	0.030	0.006	4.5	Pass
Hexythiazox	ND	0.031	0.010	2	Pass	Trifloxystrobin	ND	0.030	0.002	30	Pass
Imidacloprid	ND	0.030	0.009	3	Pass						

### Other Analyte(s):

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: LC-MS-MS & GC-MS-MS; samples analyzed according to SOPs PESTMYCO-LC-INST-004 and PEST-GC-INST-003.



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*Josh M Swider*

Josh Swider  
Lab Director, Managing Partner  
09/19/2022

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# Daily 200 Orange B3261

Lab ID: 220418-459-MH-14

METRC Batch: METRC Sample

Sample ID: 2204PHS0717.1879

Strain: cbd

Matrix: Other

Type: Other

Sample Size: 1oz

Produced:

Collected:

Received: 08/04/2022

Completed: 08/04/2022

Batch: B3261

Producer:

Myriams Hemp



## Cannabinoids

**2.691 mg/mL**

Total THC

**207.542 mg/mL**

Total CBD

**215.567 mg/mL**

Total Cannabinoids

Analyte	LOD	LOQ	Results	Results	Results
	mg/g	mg/g	%	mg/g	mg/mL
THCa	0.005	0.010	ND	ND	ND
Δ9-THC	0.006	0.010	0.2820	2.820	2.691
Δ8-THC	0.005	0.010	ND	ND	ND
THCVa	0.006	0.100	ND	ND	ND
THCV	0.007	0.100	ND	ND	ND
CBDa	0.006	0.010	ND	ND	ND
CBD	0.005	0.010	21.7504	217.504	207.542
CBDVa	0.006	0.100	ND	ND	ND
CBDV	0.008	0.100	ND	ND	ND
CBN	0.006	0.100	0.1415	1.415	1.350
CBGa	0.006	0.100	0.1761	1.761	1.680
CBG	0.009	0.100	0.2069	2.069	1.975
CBC	0.006	0.100	0.0345	0.345	0.329
(6aR,9S)-d10-THC	0.006	0.010	ND	ND	ND
(6aR,9R)-d10-THC	0.006	0.010	ND	ND	ND
<b>Total THC</b>			<b>0.282</b>	<b>2.820</b>	<b>2.691</b>
<b>Total CBD</b>			<b>21.750</b>	<b>217.504</b>	<b>207.542</b>
<b>Total</b>			<b>22.743</b>	<b>227.437</b>	

### Notes:

Total THC = (THCa \* 0.877) + Δ9-THC; Total CBD = (CBDa\*0.877) + CBD

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Cannabinoids: UHPLC, PDA, SOP 6.0, 16 CCR 5724 Microbial: qPCR, SOP 6.05, 16 CCR 5720 Foreign Material: SOP 2.02 16 CCR 5722, %H2O and WA: Moisture Balance, Rctronic, SOP 6.07 5717



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Lab Director

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# Daily 200 Orange B3261

Lab ID: 220418-459-MH-14

METRC Batch: METRC Sample

Sample ID: 2204PHS0717.1879

Strain: cbd

Matrix: Other

Type: Other

Sample Size: 1oz

Produced:

Collected:

Received: 08/04/2022

Completed: 08/04/2022

Batch: B3261

Producer:

Myriams Hemp

## Terpenes

Analyte	LOD	LOQ	Results	
			mg/g	%
β-Caryophyllene	0.42	1.25	3.36	0.336
Linalool	0.42	1.25	2.74	0.274
β-Myrcene	0.42	1.25	1.74	0.174
Terpinolene	0.42	1.25	1.67	0.167
α-Humulene	0.42	1.25	1.52	0.152
cis-Nerolidol	0.13	0.39	1.13	0.113
1,8-Cineole	0.42	1.25	ND	ND
α-Bisabolol	0.17	0.50	ND	ND
α-Pinene	0.42	1.25	ND	ND
α-Terpinene	0.42	1.25	ND	ND
β-Ocimene	0.42	1.25	ND	ND
β-Pinene	0.42	1.25	ND	ND
Camphene	0.42	1.25	ND	ND
Camphor	0.42	1.25	ND	ND
δ-3-Carene	0.42	1.25	ND	ND
δ-Limonene	0.42	1.25	ND	ND
γ-Terpinene	0.42	1.25	ND	ND
Guaiol	0.17	0.50	ND	ND
Isopulegol	0.42	1.25	ND	ND
p-Cymene	0.42	1.25	ND	ND
trans-Nerolidol	0.25	0.76	ND	ND
<b>Total</b>			<b>12.16</b>	<b>1.216</b>

## Primary Aromas



Cinnamon



Lavender



Hops



Turpentine



Flowers

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by GC-FID, SOP 6.02, 16 CCR §5725

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# Daily 200 Orange B3261

Lab ID: 220418-459-MH-14

METRC Batch: METRC Sample

Sample ID: 2204PHS0717.1879

Strain: cbd

Matrix: Other

Type: Other

Sample Size: 1oz

Produced:

Collected:

Received: 08/04/2022

Completed: 08/04/2022

Batch: B3261

Producer:

Myriams Hemp

## Pesticides

Pass

Analyte	LOD	LOQ	Limit	Results	Status	Analyte	LOD	LOQ	Limit	Results	Status
	PPM	PPM	PPM	µg/g			PPM	PPM	PPM	µg/g	
Abamectin	0.010	0.020	0.100	ND	Pass	Fludioxonil	0.010	0.020	0.100	ND	Pass
Acephate	0.010	0.020	0.100	ND	Pass	Hexythiazox	0.010	0.020	0.100	ND	Pass
Acequinocyl	0.010	0.020	0.100	ND	Pass	Imazalil	0.010	0.020	0.010	ND	Pass
Acetamiprid	0.010	0.020	0.100	ND	Pass	Imidacloprid	0.010	0.020	5.000	ND	Pass
Aldicarb	0.010	0.020	0.010	ND	Pass	Kresoxim Methyl	0.010	0.020	0.100	ND	Pass
Azoxystrobin	0.010	0.020	0.100	ND	Pass	Malathion	0.010	0.020	0.500	ND	Pass
Bifenazate	0.010	0.020	0.100	ND	Pass	Metalaxyl	0.010	0.020	2.000	ND	Pass
Bifenthrin	0.010	0.020	3.000	ND	Pass	Methiocarb	0.010	0.020	0.010	ND	Pass
Boscalid	0.010	0.020	0.100	ND	Pass	Methomyl	0.010	0.020	1.000	ND	Pass
Captan	0.010	0.020	0.700	ND	Pass	Mevinphos	0.010	0.020	0.010	ND	Pass
Carbaryl	0.010	0.020	0.500	ND	Pass	Myclobutanil	0.010	0.020	0.100	ND	Pass
Carbofuran	0.010	0.020	0.010	ND	Pass	Naled	0.010	0.020	0.100	ND	Pass
Chlorantraniliprole	0.010	0.020	10.000	ND	Pass	Oxamyl	0.010	0.020	0.500	ND	Pass
Chlordane	0.010	0.020	0.010	ND	Pass	Paclobutrazol	0.010	0.020	0.010	ND	Pass
Chlorfenapyr	0.020	0.100	0.020	ND	Pass	Parathion Methyl	0.010	0.020	0.010	ND	Pass
Chlorpyrifos	0.010	0.020	0.010	ND	Pass	Pentachloronitrobenzene	0.010	0.020	0.100	ND	Pass
Clofentezine	0.010	0.020	0.100	ND	Pass	Permethrin	0.010	0.020	0.500	ND	Pass
Coumaphos	0.010	0.020	0.010	ND	Pass	Phosmet	0.010	0.020	0.100	ND	Pass
Cyfluthrin	0.020	0.020	2.000	ND	Pass	Piperonyl Butoxide	0.010	0.020	3.000	ND	Pass
Cypermethrin	0.010	0.100	1.000	ND	Pass	Prallethrin	0.010	0.020	0.100	ND	Pass
Daminozide	0.010	0.020	0.010	ND	Pass	Propiconazole	0.010	0.020	0.100	ND	Pass
Diazinon	0.010	0.020	0.100	ND	Pass	Propoxur	0.010	0.020	0.010	ND	Pass
Dichlorvos	0.010	0.020	0.010	ND	Pass	Pyrethrins	0.010	0.020	0.500	ND	Pass
Dimethoate	0.010	0.020	0.010	ND	Pass	Pyridaben	0.010	0.020	0.100	ND	Pass
Dimethomorph	0.010	0.020	2.000	ND	Pass	Spinetoram	0.010	0.020	0.100	ND	Pass
Ethoprophos	0.010	0.020	0.010	ND	Pass	Spinosad	0.010	0.020	0.100	ND	Pass
Etofenprox	0.010	0.020	0.010	ND	Pass	Spiromesifen	0.010	0.020	0.100	ND	Pass
Etozazole	0.010	0.020	0.100	ND	Pass	Spirotetramat	0.010	0.020	0.100	ND	Pass
Fenhexamid	0.010	0.020	0.100	ND	Pass	Spiroxamine	0.010	0.020	0.010	ND	Pass
Fenoxycarb	0.010	0.020	0.010	ND	Pass	Tebuconazole	0.010	0.020	0.100	ND	Pass
Fenpyroximate	0.010	0.020	0.100	ND	Pass	Thiacloprid	0.010	0.020	0.010	ND	Pass
Fipronil	0.010	0.020	0.010	ND	Pass	Thiamethoxam	0.010	0.020	5.000	ND	Pass
Fonicamid	0.010	0.020	0.100	ND	Pass	Trifloxystrobin	0.010	0.020	0.100	ND	Pass

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Pesticide detection is determined by LCMS & GCMS, SOP 6.03 & 6.04, 16 CCR § 5719.



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# Daily 200 Orange B3261

Lab ID: 220418-459-MH-14

METRC Batch: METRC Sample

Sample ID: 2204PHS0717.1879

Strain: cbd

Matrix: Other

Type: Other

Sample Size: 1oz

Produced:

Collected:

Received: 08/04/2022

Completed: 08/04/2022

Batch: B3261

Producer:

Myriams Hemp

## Microbials

Pass

Analyte	Results	Status	Analyte	Results	Status
Aspergillus flavus	Not Detected in 1g	Pass	Aspergillus terreus	Not Detected in 1g	Pass
Aspergillus fumigatus	Not Detected in 1g	Pass	E. Coli	Not Detected in 1g	Pass
Aspergillus niger	Not Detected in 1g	Pass	Salmonella SPP	Not Detected in 1g	Pass

LOQ = Limit of Quantitation; TNC = Too Numerous to Count; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by qPCR, SOP 6.05, 16 CCR §5720

## Mycotoxins

Pass

Analyte	LOD	LOQ	Limit	Results	Status
	µg/kg	µg/kg	µg/kg	µg/kg	
B1	0.001	0.005	4	ND	Pass
B2	0.001	0.005	4	ND	Pass
G1	0.001	0.005	4	ND	Pass
G2	0.001	0.005	4	ND	Pass
Total Aflatoxins			20	ND	Pass
Ochratoxin A	0.005	0.02	4	ND	Pass

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by LCMS, SOP 6.03 & 6.04, 16 CCR §5721

## Heavy Metals

Pass

Analyte	LOD	LOQ	Limit	Results	Status
	µg/g	µg/g	µg/g	µg/g	
Arsenic	0.0167	0.05	0.2	ND	Pass
Cadmium	0.0167	0.05	0.2	ND	Pass
Lead	0.0167	0.05	0.5	ND	Pass
Mercury	0.0167	0.05	0.1	ND	Pass

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by ICPMS SOP 6.06, 16 CCR § 5723



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## Daily 200 Orange B3261

Lab ID: 220418-459-MH-14

METRC Batch: METRC Sample

Sample ID: 2204PHS0717.1879

Strain: cbd

Matrix: Other

Type: Other

Sample Size: 1oz

Produced:

Collected:

Received: 08/04/2022

Completed: 08/04/2022

Batch: B3261

Producer:

Myriams Hemp

### Residual Solvents

Pass

Analyte	LOD	LOQ	Limit	Results	Status
	µg/g	µg/g	µg/g	µg/g	
1,2-Dichloro-Ethane	0.33	1	1	ND	Pass
Acetone	0.33	1	5000	ND	Pass
Acetonitrile	0.33	1	410	ND	Pass
Benzene	0.33	1	1	ND	Pass
Butane	0.33	1	5000	ND	Pass
Chloroform	0.33	1	1	ND	Pass
Ethanol	0.33	1	5000	ND	Pass
Ethyl-Acetate	0.33	1	5000	ND	Pass
Ethyl-Ether	0.33	1	5000	ND	Pass
Ethylene Oxide	0.33	1	1	ND	Pass
Heptane	0.33	1	5000	ND	Pass
Isopropanol	0.33	1	5000	ND	Pass
Methanol	0.33	1	3000	ND	Pass
Methylene-Chloride	0.33	1	1	ND	Pass
n-Hexane	0.33	1	290	ND	Pass
Pentane	0.33	1	5000	ND	Pass
Propane	0.33	1	5000	ND	Pass
Toluene	0.33	1	890	ND	Pass
Trichloroethene	0.33	1	1	ND	Pass
Xylenes	0.33	1	2170	ND	Pass

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by GCMS, SOP 6.01 CCR §5718



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# CBDA 1500 Orange #3278

Lab ID: 132124-461-MH-2

METRC Batch: METRC Sample

Sample ID: 2204PHS0717.3107

Strain: CBDA 1500 Orange

Matrix: Ingestible

Type: Tincture

Sample Size: 1oz

Produced:

Collected:

Received: 01/24/2023

Completed: 01/25/2023

Batch: 3278

Producer:

Myriams Hemp



## Cannabinoids

Complete

**2.108 mg/ml**

Total THC

**47.576 mg/ml**

Total CBD

**59.729 mg/ml**

Total Cannabinoids

Analyte	LOD	LOQ	Results	Results
	mg/g	mg/g	%	mg/ml
THCa	0.01	0.01	ND	ND
Δ9-THC	0.01	0.01	0.2450	2.108
Δ8-THC	0.01	0.01	ND	ND
THCVa	0.01	0.10	ND	ND
THCV	0.01	0.10	ND	ND
THCo	0.03	0.10	ND	ND
CBDa	0.01	0.01	5.6040	52.694
CBD	0.01	0.01	0.1450	1.363
CBDVa	0.01	0.10	0.0350	0.329
CBDV	0.01	0.10	ND	ND
CBN	0.01	0.10	0.1690	1.589
CBGa	0.01	0.10	ND	ND
CBG	0.01	0.10	0.1750	1.646
CBC	0.01	0.10	ND	ND
Exo-THC	0.01	0.10	ND	ND
(6aR,9S)-d10-THC	0.01	0.01	ND	ND
(6aR,9R)-d10-THC	0.01	0.01	ND	ND
<b>Total THC</b>			<b>0.245</b>	<b>2.108</b>
<b>Total CBD</b>			<b>5.060</b>	<b>47.576</b>
<b>Total</b>			<b>6.373</b>	<b>59.729</b>

Total THC = (THCa \* 0.877) + Δ9-THC; Total CBD = (CBDa \* 0.877) + CBD

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Cannabinoids: UHPLC, PDA, SOP 6.0, 16 CCR §5724 Microbial: qPCR, SOP 6.05, 16 CCR §5720 Foreign Material: SOP 2.02 16 CCR §5722, %H2O and WA: Moisture Balance, Rotronic, SOP 6.07 §5717



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# CBDA 1500 Orange #3278

Lab ID: 132124-461-MH-2

METRC Batch: METRC Sample

Sample ID: 2204PHS0717.3107

Strain: CBDA 1500 Orange

Matrix: Ingestible

Type: Tincture

Sample Size: 1oz

Produced:

Collected:

Received: 01/24/2023

Completed: 01/25/2023

Batch: 3278

Producer:

Myriams Hemp

## Terpenes

Analyte	LOD	LOQ	Results	Results	
	mg/g	mg/g	mg/g	%	
δ-Limonene	0.42	1.25	10.43	1.043	
trans-Nerolidol	0.25	0.76	6.99	0.699	
Linalool	0.42	1.25	2.11	0.211	
β-Myrcene	0.42	1.25	1.95	0.195	
β-Caryophyllene	0.42	1.25	1.72	0.172	
Terpinolene	0.42	1.25	1.38	0.138	
1,8-Cineole	0.42	1.25	ND	ND	
α-Bisabolol	0.17	0.50	ND	ND	
α-Humulene	0.42	1.25	ND	ND	
α-Pinene	0.42	1.25	ND	ND	
α-Terpinene	0.42	1.25	ND	ND	
β-Ocimene	0.42	1.25	ND	ND	
β-Pinene	0.42	1.25	ND	ND	
Camphene	0.42	1.25	ND	ND	
Camphor	0.42	1.25	ND	ND	
cis-Nerolidol	0.13	0.39	ND	ND	
δ-3-Carene	0.42	1.25	ND	ND	
γ-Terpinene	0.42	1.25	ND	ND	
Guaiol	0.17	0.50	ND	ND	
Isopulegol	0.42	1.25	ND	ND	
p-Cymene	0.42	1.25	ND	ND	
<b>Total</b>			<b>24.57</b>	<b>2.457</b>	

## Primary Aromas

  
Lemon

  
Orange

  
Lavender

  
Hops

  
Cinnamon

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by GC-FID, SOP 6.02, 16 CCR §5725

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# CBDA 1500 Orange #3278

Lab ID: 132124-461-MH-2

METRC Batch: METRC Sample

Sample ID: 2204PHS0717.3107

Strain: CBDA 1500 Orange

Matrix: Ingestible

Type: Tincture

Sample Size: 1oz

Produced:

Collected:

Received: 01/24/2023

Completed: 01/25/2023

Batch: 3278

Producer:

Myriams Hemp

## Pesticides

Pass

Analyte	LOD	LOQ	Limit	Results	Status	Analyte	LOD	LOQ	Limit	Results	Status
	PPM	PPM	PPM	µg/g			PPM	PPM	PPM	µg/g	
Abamectin	0.010	0.020	0.100	ND	Pass	Fludioxonil	0.010	0.020	0.100	ND	Pass
Acephate	0.010	0.020	0.100	ND	Pass	Hexythiazox	0.010	0.020	0.100	ND	Pass
Acequinocyl	0.010	0.020	0.100	ND	Pass	Imazalil	0.010	0.020	0.010	ND	Pass
Acetamiprid	0.010	0.020	0.100	ND	Pass	Imidacloprid	0.010	0.020	5.000	ND	Pass
Aldicarb	0.010	0.020	0.010	ND	Pass	Kresoxim Methyl	0.010	0.020	0.100	ND	Pass
Azoxystrobin	0.010	0.020	0.100	ND	Pass	Malathion	0.010	0.020	0.500	ND	Pass
Bifenazate	0.010	0.020	0.100	ND	Pass	Metalaxyl	0.010	0.020	2.000	ND	Pass
Bifenthrin	0.010	0.020	3.000	ND	Pass	Methiocarb	0.010	0.020	0.010	ND	Pass
Boscalid	0.010	0.020	0.100	ND	Pass	Methomyl	0.010	0.020	1.000	ND	Pass
Captan	0.010	0.020	0.700	ND	Pass	Mevinphos	0.010	0.020	0.010	ND	Pass
Carbaryl	0.010	0.020	0.500	ND	Pass	Myclobutanil	0.010	0.020	0.100	ND	Pass
Carbofuran	0.010	0.020	0.010	ND	Pass	Naled	0.010	0.020	0.100	ND	Pass
Chlorantraniliprole	0.010	0.020	10.000	ND	Pass	Oxamyl	0.010	0.020	0.500	ND	Pass
Chlordane	0.010	0.020	0.010	ND	Pass	Pacllobutrazol	0.010	0.020	0.010	ND	Pass
Chlorfenapyr	0.020	0.100	0.020	ND	Pass	Parathion Methyl	0.010	0.020	0.010	ND	Pass
Chlorpyrifos	0.010	0.020	0.010	ND	Pass	Pentachloronitrobenzene	0.010	0.020	0.100	ND	Pass
Clofentezine	0.010	0.020	0.100	ND	Pass	Permethrin	0.010	0.020	0.500	ND	Pass
Coumaphos	0.010	0.020	0.010	ND	Pass	Phosmet	0.010	0.020	0.100	ND	Pass
Cyfluthrin	0.020	0.020	2.000	ND	Pass	Piperonyl Butoxide	0.010	0.020	3.000	ND	Pass
Cypermethrin	0.010	0.100	1.000	ND	Pass	Prallethrin	0.010	0.020	0.100	ND	Pass
Daminozide	0.010	0.020	0.010	ND	Pass	Propiconazole	0.010	0.020	0.100	ND	Pass
Diazinon	0.010	0.020	0.100	ND	Pass	Propoxur	0.010	0.020	0.010	ND	Pass
Dichlorvos	0.010	0.020	0.010	ND	Pass	Pyrethrins	0.010	0.020	0.500	ND	Pass
Dimethoate	0.010	0.020	0.010	ND	Pass	Pyridaben	0.010	0.020	0.100	ND	Pass
Dimethomorph	0.010	0.020	2.000	ND	Pass	Spinetoram	0.010	0.020	0.100	ND	Pass
Ethoprophos	0.010	0.020	0.010	ND	Pass	Spinosad	0.010	0.020	0.100	ND	Pass
Etofenprox	0.010	0.020	0.010	ND	Pass	Spiromesifen	0.010	0.020	0.100	ND	Pass
Etoxazole	0.010	0.020	0.100	ND	Pass	Spirotetramat	0.010	0.020	0.100	ND	Pass
Fenhexamid	0.010	0.020	0.100	ND	Pass	Spiroxamine	0.010	0.020	0.010	ND	Pass
Fenoxycarb	0.010	0.020	0.010	ND	Pass	Tebuconazole	0.010	0.020	0.100	ND	Pass
Fenpyroximate	0.010	0.020	0.100	ND	Pass	Thiacloprid	0.010	0.020	0.010	ND	Pass
Fipronil	0.010	0.020	0.010	ND	Pass	Thiamethoxam	0.010	0.020	5.000	ND	Pass
Flonicamid	0.010	0.020	0.100	ND	Pass	Trifloxystrobin	0.010	0.020	0.100	ND	Pass

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Pesticide detection is determined by LCMS & GCMS, SOP 6.03 & 6.04, 16 CCR § 5719.



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Lab Director

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# CBDA 1500 Orange #3278

Lab ID: 132124-461-MH-2

METRC Batch: METRC Sample

Sample ID: 2204PHS0717.3107

Strain: CBDA 1500 Orange

Matrix: Ingestible

Type: Tincture

Sample Size: 1oz

Produced:

Collected:

Received: 01/24/2023

Completed: 01/25/2023

Batch: 3278

Producer:

Myriams Hemp

## Microbials

Pass

Analyte	Results	Status	Analyte	Results	Status
Aspergillus flavus	Not Detected in 1g	Pass	Aspergillus terreus	Not Detected in 1g	Pass
Aspergillus fumigatus	Not Detected in 1g	Pass	E. Coli	Not Detected in 1g	Pass
Aspergillus niger	Not Detected in 1g	Pass	Salmonella SPP	Not Detected in 1g	Pass

LOQ = Limit of Quantitation; TNC = Too Numerous to Count; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by qPCR, SOP 6.05, 16 CCR §5720

## Mycotoxins

Pass

Analyte	LOD	LOQ	Limit	Results	Status
	µg/kg	µg/kg	µg/kg	µg/kg	
B1	0.001	0.005	4	ND	Pass
B2	0.001	0.005	4	ND	Pass
G1	0.001	0.005	4	ND	Pass
G2	0.001	0.005	4	ND	Pass
Total Aflatoxins			20	ND	Pass
Ochratoxin A	0.005	0.02	4	ND	Pass

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by LCMS, SOP 6.03 & 6.04, 16 CCR §5721

## Heavy Metals

Pass

Analyte	LOD	LOQ	Limit	Results	Status
	µg/g	µg/g	µg/g	µg/g	
Arsenic	0.0167	0.05	0.2	ND	Pass
Cadmium	0.0167	0.05	0.2	ND	Pass
Lead	0.0167	0.05	0.5	ND	Pass
Mercury	0.0167	0.05	0.1	ND	Pass

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by ICPMS SOP 6.06, 16 CCR § 5723



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# CBDA 1500 Orange #3278

Lab ID: 132124-461-MH-2

METRC Batch: METRC Sample

Sample ID: 2204PHS0717.3107

Strain: CBDA 1500 Orange

Matrix: Ingestible

Type: Tincture

Sample Size: 1oz

Produced:

Collected:

Received: 01/24/2023

Completed: 01/25/2023

Batch: 3278

Producer:

Myriams Hemp

## Residual Solvents

Pass

Analyte	LOD	LOQ	Limit	Results	Status
	µg/g	µg/g	µg/g	µg/g	
1,2-Dichloro-Ethane	0.33	1	1	ND	Pass
Acetone	0.33	1	5000	ND	Pass
Acetonitrile	0.33	1	410	ND	Pass
Benzene	0.33	1	1	ND	Pass
Butane	0.33	1	5000	ND	Pass
Chloroform	0.33	1	1	ND	Pass
Ethanol	0.33	1	5000	ND	Pass
Ethyl-Acetate	0.33	1	5000	ND	Pass
Ethyl-Ether	0.33	1	5000	ND	Pass
Ethylene Oxide	0.33	1	1	ND	Pass
Heptane	0.33	1	5000	ND	Pass
Isopropanol	0.33	1	5000	ND	Pass
Methanol	0.33	1	3000	ND	Pass
Methylene-Chloride	0.33	1	1	ND	Pass
n-Hexane	0.33	1	290	ND	Pass
Pentane	0.33	1	5000	ND	Pass
Propane	0.33	1	5000	ND	Pass
Toluene	0.33	1	890	ND	Pass
Trichloroethene	0.33	1	1	ND	Pass
Xylenes	0.33	1	2170	ND	Pass

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by GCMS, SOP 6.01 CCR §5718



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Attest all LQC samples performed and met in accordance with 16 CCR sec. 5730. This product has been tested by PH Solutions using valid testing methodologies and a quality system as required by state law. Values reported relate only to the product tested. PH Solutions makes no claims as to the efficacy, safety or other risks associated with any detected or non-detected levels of any compounds reported herein. This Certificate shall not be reproduced except in full, without the written approval of PH Solutions. Certified by Lab Director Dr. Raquel Keledjian





12423 NE Whitaker Way  
Portland, OR 97230  
503-254-1794



**Report Number:** 22-009645/DR.002  
**Report Date:** 11/28/22  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 11/27/22 11:00

**Customer:**

**Product identity:** ENHANCED CBD FECO #5216  
**Client/Metric ID:**  
**Sample Date:** 11/28/22  
**Laboratory ID:** 22-009645-231  
**Relinquished by:** MYRIAMS HEMP  
**Temp:** 25.2 C  
**Evidence of Cooling:**  
**Grower:**

**Sample Results**

Potency	Method	J AOAC 2015 V98-6 (mod)	Units mg/ml	Batch: 2207156	Analyze: 11/28/22 12:00:00 PM
Analyte	As Received	Dry weight	LOQ	Notes	
CBC	72.90		0.0930		
CBC-A <sup>1</sup>	< LOQ		0.0930		
CBC-Total <sup>1</sup>	72.90		0.175		
CBD	454.00		0.930		
CBD-A	< LOQ		0.0930		
CBD-Total	454.00		1.01		
CBDV <sup>1</sup>	5.56		0.0930		
CBDV-A <sup>1</sup>	< LOQ		0.0930		
CBDV-Total <sup>1</sup>	5.56		0.174		
CBE <sup>1</sup>	45.30		0.0930		
CBG <sup>1</sup>	18.60		0.0930		
CBG-A <sup>1</sup>	< LOQ		0.0930		
CBG-Total	18.60		0.174		
CBL <sup>1</sup>	9.11		0.0930		
CBL-A <sup>1</sup>	< LOQ		0.0930		
CBL-Total <sup>1</sup>	9.11		0.175		
CBN	38.12		0.0930		
CBT <sup>1</sup>	41.93		0.0930		
Δ <sup>8</sup> -THC <sup>1</sup>	< LOQ		0.0930		
Δ <sup>8</sup> -THCV	< LOQ		0.0930		
Δ <sup>9</sup> -THC	2.56		0.0930		
THC-A	< LOQ		0.0930		
THC-Total	2.56		0.175		
THCV <sup>1</sup>	< LOQ		0.0930		
THCV-A <sup>1</sup>	< LOQ		0.0930		
THCV-Total <sup>1</sup>	< LOQ		0.174		
<b>Total Cannabinoids</b>	<b>688.08</b>				

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Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.

Testing in accordance with: OAR 333-007-0410 OAR 333-007-0430



12423 NE Whitaker Way  
 Portland, OR 97230  
 503-254-1794



**Report Number:** 22-009645/DR.002  
**Report Date:** 11/28/22  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 11/27/22 11:00

Solvents		Method Residual Solvents by GC/MS				Units ug/g	Batch	2207156	Analyze	11/28/22	12:00:00 PM
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
1,4-Dioxane	< LOQ	380	100	pass		2-Butanol	< LOQ	5000	200	pass	
2-Ethoxyethanol	< LOQ	160	30.0	pass		2-Methylbutane (Isopentane)	< LOQ		200		
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA)	< LOQ	5000	200	pass	
2,2-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane)	< LOQ		200		
2,3-Dimethylbutane	< LOQ		30.0			3-Methylpentane	< LOQ		30.0		
Acetone	< LOQ	5000	200	pass		Acetonitrile	< LOQ	410	100	pass	
Benzene	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	5000	400	pass	
Cyclohexane	< LOQ	3880	200	pass		Ethyl acetate	< LOQ	5000	200	pass	
Ethyl benzene	< LOQ		200			Ethyl ether	< LOQ	5000	200	pass	
Ethylene glycol	< LOQ	620	200	pass		Ethylene oxide	< LOQ	50.0	20.0	pass	
Hexanes (sum)	< LOQ	290	150	pass		Isopropyl acetate	< LOQ	5000	200	pass	
Isopropylbenzene (Cumene)	< LOQ	70.0	30.0	pass		m,p-Xylene	< LOQ		200		
Methanol	< LOQ	3000	200	pass		Methylene chloride	< LOQ	600	60.0	pass	
Methylpropane (Isobutane)	< LOQ		200			n-Butane	< LOQ		200		
n-Heptane	< LOQ	5000	200	pass		n-Hexane	< LOQ		30.0		
n-Pentane	< LOQ		200			o-Xylene	< LOQ		200		
Pentanes (sum)	< LOQ	5000	600	pass		Propane	< LOQ	5000	200	pass	
Tetrahydrofuran	< LOQ	720	100	pass		Toluene	< LOQ	890	100	pass	
Total Xylenes	< LOQ		400			Total Xylenes and Ethyl benzene	< LOQ	2170	600	pass	





12423 NE Whitaker Way  
Portland, OR 97230  
503-254-1794



**Report Number:** 22-009645/DR.002  
**Report Date:** 11/28/22  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 11/27/22 11:00

**Pesticides**      **Metbod AOAC 2007.01 & EN 15662 (mod) Units mg/kg**      **Batch: 2207156**      **Analyze 11/28/22 12:00:00 PM**

Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin	< LOQ	0.50	0.250	pass		Acephate	< LOQ	0.40	0.250	pass	
Acequinocyl	< LOQ	2.0	1.00	pass		Acetamiprid	< LOQ	0.20	0.100	pass	
Aldicarb	< LOQ	0.40	0.200	pass		Azoxystrobin	< LOQ	0.20	0.100	pass	
Bifenazate	< LOQ	0.20	0.100	pass		Bifenthrin	< LOQ	0.20	0.100	pass	
Boscalid	< LOQ	0.40	0.200	pass		Carbaryl	< LOQ	0.20	0.100	pass	
Carbofuran	< LOQ	0.20	0.100	pass		Chlorantraniliprole	< LOQ	0.20	0.100	pass	
Chlorfenapyr	< LOQ	1.0	0.500	pass		Chlorpyrifos	< LOQ	0.20	0.100	pass	
Clofentezine	< LOQ	0.20	0.100	pass		Cyfluthrin	< LOQ	1.0	0.500	pass	
Cypermethrin	< LOQ	1.0	0.500	pass		Daminozide	< LOQ	1.0	0.500	pass	
Diazinon	< LOQ	0.20	0.100	pass		Dichlorvos	< LOQ	1.0	0.500	pass	
Dimethoate	< LOQ	0.20	0.100	pass		Ethoprophos	< LOQ	0.20	0.100	pass	
Etofenprox	< LOQ	0.40	0.200	pass		Etoxazole	< LOQ	0.20	0.100	pass	
Fenoxycarb	< LOQ	0.20	0.100	pass		Fenpyroximate	< LOQ	0.40	0.200	pass	
Fipronil	< LOQ	0.40	0.200	pass		Fonicamid	< LOQ	1.0	0.400	pass	
Fludioxonil	< LOQ	0.40	0.200	pass		Hexythiazox	< LOQ	1.0	0.400	pass	
Imazalil	< LOQ	0.20	0.100	pass		Imidacloprid	< LOQ	0.40	0.200	pass	
Kresoxim-methyl	< LOQ	0.40	0.200	pass		Malathion	< LOQ	0.20	0.100	pass	
Metalaxyl	< LOQ	0.20	0.100	pass		Methiocarb	< LOQ	0.20	0.100	pass	
Methomyl	< LOQ	0.40	0.200	pass		MGK-264	< LOQ	0.20	0.100	pass	
Myclobutanil	< LOQ	0.20	0.100	pass		Naled	< LOQ	0.50	0.250	pass	
Oxamyl	< LOQ	1.0	0.500	pass		Paclobutrazole	< LOQ	0.40	0.200	pass	
Parathion-Methyl	< LOQ	0.20	0.200	pass		Permethrin	< LOQ	0.20	0.100	pass	
Phosmet	< LOQ	0.20	0.100	pass		Piperonyl butoxide	< LOQ	2.0	1.00	pass	
Prallethrin	< LOQ	0.20	0.200	pass		Propiconazole	< LOQ	0.40	0.200	pass	
Propoxur	< LOQ	0.20	0.100	pass		Pyrethrin I (total)	< LOQ	1.0	0.500	pass	
Pyridaben	< LOQ	0.20	0.100	pass		Spinosad	< LOQ	0.20	0.100	pass	
Spiromesifen	< LOQ	0.20	0.100	pass		Spirotetramat	< LOQ	0.20	0.100	pass	
Spiroxamine	< LOQ	0.40	0.200	pass		Tebuconazole	< LOQ	0.40	0.200	pass	
Thiacloprid	< LOQ	0.20	0.100	pass		Thiamethoxam	< LOQ	0.20	0.100	pass	
Trifloxystrobin	< LOQ	0.20	0.100	pass							

# D100 Sunrise Orange #3234

Lab ID: 220330-659-MH-4

METRC Batch: METRC Sample

Sample ID: 2203PHS0312.11

Strain: cbd

Matrix: Other

Type: Other

Sample Size: 1oz

Produced:

Collected: 03/30/2022

Received: 03/30/2022

Completed: 04/01/2022

Batch: 3234

Producer

**Myriam's Hemp**

Lic. #

181 W Huntington Dr

Monrovia CA, CA 91016



## Cannabinoids

Complete

**2.414 mg/mL**

Total THC

**103.332 mg/mL**

Total CBD

**118.123 mg/mL**

Total Cannabinoids

Analyte	LOD	LOQ	Results	Results	Results
	mg/g	mg/g	%	mg/g	mg/mL
THCa	0.005	0.010	ND	ND	ND
Δ9-THC	0.006	0.010	0.2530	2.530	2.414
Δ8-THC	0.005	0.010	ND	ND	ND
THCVa	0.006	0.100	ND	ND	ND
THCV	0.007	0.100	ND	ND	ND
CBDa	0.006	0.010	ND	ND	ND
CBD	0.005	0.010	10.8280	108.280	103.332
CBDVa	0.006	0.100	ND	ND	ND
CBDV	0.008	0.100	ND	ND	ND
CBN	0.006	0.100	0.4000	4.000	3.817
CBGa	0.006	0.100	ND	ND	ND
CBG	0.009	0.100	0.4760	4.760	4.542
CBC	0.006	0.100	0.4210	4.210	4.018
(6aR,9S)-d10-THC	0.006	0.010	ND	ND	ND
(6aR,9R)-d10-THC	0.006	0.010	ND	ND	ND
<b>Total THC</b>			<b>0.253</b>	<b>2.530</b>	<b>2.414</b>
<b>Total CBD</b>			<b>10.828</b>	<b>108.280</b>	<b>103.332</b>
<b>Total</b>			<b>12.3780</b>	<b>123.780</b>	

Notes:

Total THC = (THCa \* 0.877) + Δ9-THC; Total CBD = (CBDa \* 0.877) + CBD

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Cannabinoids: UHPLC, PDA, SOP 6.0, 16 CCR §5724 Microbial: qPCR, SOP 6.05, 16 CCR §5720 Foreign Material: SOP 2.02 16 CCR §5722, %H2O and WA: Moisture Balance, Rotronic, SOP 6.07 §5717



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# D100 Sunrise Orange #3234

Lab ID: 220330-659-MH-4

METRC Batch: METRC Sample

Sample ID: 2203PHS0312.11

Strain: cbd

Matrix: Other

Type: Other

Sample Size: 1oz

Produced:

Collected: 03/30/2022

Received: 03/30/2022

Completed: 04/01/2022

Batch: 3234

Producer

**Myriam's Hemp**

Lic. #

181 W Huntington Dr

Monrovia CA, CA 91016

## Terpenes

Analyte	LOD	LOQ	Results	Results	
	mg/g	mg/g	mg/g	%	
β-Caryophyllene	0.42	1.25	3.34	0.334	
Linalool	0.42	1.25	2.58	0.258	
Terpinolene	0.42	1.25	2.56	0.256	
1,8-Cineole	0.42	1.25	1.96	0.196	
β-Myrcene	0.42	1.25	1.78	0.178	
α-Humulene	0.42	1.25	1.35	0.135	
α-Bisabolol	0.17	0.50	<LOQ	<LOQ	
α-Pinene	0.42	1.25	ND	ND	
α-Terpinene	0.42	1.25	ND	ND	
β-Ocimene	0.42	1.25	ND	ND	
β-Pinene	0.42	1.25	ND	ND	
Camphene	0.42	1.25	ND	ND	
Camphor	0.42	1.25	ND	ND	
cis-Nerolidol	0.13	0.39	ND	ND	
δ-3-Carene	0.42	1.25	ND	ND	
δ-Limonene	0.42	1.25	ND	ND	
γ-Terpinene	0.42	1.25	ND	ND	
Guaiol	0.17	0.50	ND	ND	
Isopulegol	0.42	1.25	ND	ND	
p-Cymene	0.42	1.25	ND	ND	
trans-Nerolidol	0.25	0.76	ND	ND	
<b>Total</b>			<b>13.56</b>	<b>1.356</b>	

## Primary Aromas



LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by GC-FID, SOP 6.02, 16 CCR §5725

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# D100 Sunrise Orange #3234

Lab ID: 220330-659-MH-4

METRC Batch: METRC Sample

Sample ID: 2203PHS0312.11

Strain: cbd

Matrix: Other

Type: Other

Sample Size: 1oz

Produced:

Collected: 03/30/2022

Received: 03/30/2022

Completed: 04/01/2022

Batch: 3234

Producer

**Myriam's Hemp**

Lic. #

181 W Huntington Dr

Monrovia CA, CA 91016

## Pesticides

Pass

Analyte	LOD	LOQ	Limit	Results	Status	Analyte	LOD	LOQ	Limit	Results	Status
	PPM	PPM	PPM	µg/g			PPM	PPM	PPM	µg/g	
Abamectin	0.010	0.020	0.100	ND	Pass	Fludioxonil	0.010	0.020	0.100	ND	Pass
Acephate	0.010	0.020	0.100	ND	Pass	Hexythiazox	0.010	0.020	0.100	ND	Pass
Acequinocyl	0.010	0.020	0.100	ND	Pass	Imazalil	0.010	0.020	0.010	ND	Pass
Acetamiprid	0.010	0.020	0.100	ND	Pass	Imidacloprid	0.010	0.020	5.000	ND	Pass
Aldicarb	0.010	0.020	0.010	ND	Pass	Kresoxim Methyl	0.010	0.020	0.100	ND	Pass
Azoxystrobin	0.010	0.020	0.100	ND	Pass	Malathion	0.010	0.020	0.500	ND	Pass
Bifenazate	0.010	0.020	0.100	ND	Pass	Metalaxyl	0.010	0.020	2.000	ND	Pass
Bifenthrin	0.010	0.020	3.000	ND	Pass	Methiocarb	0.010	0.020	0.010	ND	Pass
Boscalid	0.010	0.020	0.100	ND	Pass	Methomyl	0.010	0.020	1.000	ND	Pass
Captan	0.010	0.020	0.700	ND	Pass	Mevinphos	0.010	0.020	0.010	ND	Pass
Carbaryl	0.010	0.020	0.500	ND	Pass	Myclobutanil	0.010	0.020	0.100	ND	Pass
Carbofuran	0.010	0.020	0.010	ND	Pass	Naled	0.010	0.020	0.100	ND	Pass
Chlorantraniliprole	0.010	0.020	10.000	ND	Pass	Oxamyl	0.010	0.020	0.500	ND	Pass
Chlordane	0.010	0.020	0.010	ND	Pass	Pacllobutrazol	0.010	0.020	0.010	ND	Pass
Chlorfenapyr	0.020	0.100	0.020	ND	Pass	Parathion Methyl	0.010	0.020	0.010	ND	Pass
Chlorpyrifos	0.010	0.020	0.010	ND	Pass	Pentachloronitrobenzene	0.010	0.020	0.100	ND	Pass
Clofentezine	0.010	0.020	0.100	ND	Pass	Permethrin	0.010	0.020	0.500	ND	Pass
Coumaphos	0.010	0.020	0.010	ND	Pass	Phosmet	0.010	0.020	0.100	ND	Pass
Cyfluthrin	0.020	0.020	2.000	ND	Pass	Piperonyl Butoxide	0.010	0.020	3.000	ND	Pass
Cypermethrin	0.010	0.100	1.000	ND	Pass	Prallethrin	0.010	0.020	0.100	ND	Pass
Daminozide	0.010	0.020	0.010	ND	Pass	Propiconazole	0.010	0.020	0.100	ND	Pass
Diazinon	0.010	0.020	0.100	ND	Pass	Propoxur	0.010	0.020	0.010	ND	Pass
Dichlorvos	0.010	0.020	0.010	ND	Pass	Pyrethrins	0.010	0.020	0.500	ND	Pass
Dimethoate	0.010	0.020	0.010	ND	Pass	Pyridaben	0.010	0.020	0.100	ND	Pass
Dimethomorph	0.010	0.020	2.000	ND	Pass	Spinetoram	0.010	0.020	0.100	ND	Pass
Ethoprophos	0.010	0.020	0.010	ND	Pass	Spinosad	0.010	0.020	0.100	ND	Pass
Etofenprox	0.010	0.020	0.010	ND	Pass	Spiromesifen	0.010	0.020	0.100	ND	Pass
Etoxazole	0.010	0.020	0.100	ND	Pass	Spirotetramat	0.010	0.020	0.100	ND	Pass
Fenhexamid	0.010	0.020	0.100	ND	Pass	Spiroxamine	0.010	0.020	0.010	ND	Pass
Fenoxycarb	0.010	0.020	0.010	ND	Pass	Tebuconazole	0.010	0.020	0.100	ND	Pass
Fenpyroximate	0.010	0.020	0.100	ND	Pass	Thiacloprid	0.010	0.020	0.010	ND	Pass
Fipronil	0.010	0.020	0.010	ND	Pass	Thiamethoxam	0.010	0.020	5.000	ND	Pass
Flonicamid	0.010	0.020	0.100	ND	Pass	Trifloxystrobin	0.010	0.020	0.100	ND	Pass

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Pesticide detection is determined by LCMS & GCMS, SOP 6.03 & 6.04, 16 CCR § 5719.



*Rkeledj*

Raquel Keledjian  
Lab Director

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# D100 Sunrise Orange #3234

Lab ID: 220330-659-MH-4

METRC Batch: METRC Sample

Sample ID: 2203PHS0312.11

Strain: cbd

Matrix: Other

Type: Other

Sample Size: 1oz

Produced:

Collected: 03/30/2022

Received: 03/30/2022

Completed: 04/01/2022

Batch: 3234

Producer

**Myriam's Hemp**

Lic. #

181 W Huntington Dr

Monrovia CA, CA 91016

## Microbials

Pass

Analyte	Results	Status	Analyte	Results	Status
Aspergillus flavus	Not Detected in 1g	Pass	Aspergillus terreus	Not Detected in 1g	Pass
Aspergillus fumigatus	Not Detected in 1g	Pass	E. Coli	Not Detected in 1g	Pass
Aspergillus niger	Not Detected in 1g	Pass	Salmonella SPP	Not Detected in 1g	Pass

LOQ = Limit of Quantitation; TNC = Too Numerous to Count; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by qPCR, SOP 6.05, 16 CCR §5720

## Mycotoxins

Pass

Analyte	LOD	LOQ	Limit	Results	Status
	µg/kg	µg/kg	µg/kg	µg/kg	
B1	0.001	0.005	4	ND	Pass
B2	0.001	0.005	4	ND	Pass
G1	0.001	0.005	4	ND	Pass
G2	0.001	0.005	4	ND	Pass
Total Aflatoxins			20	ND	Pass
Ochratoxin A	0.005	0.02	4	ND	Pass

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by LCMS, SOP 6.03 & 6.04, 16 CCR §5721

## Heavy Metals

Pass

Analyte	LOD	LOQ	Limit	Results	Status
	µg/g	µg/g	µg/g	µg/g	
Arsenic	0.0167	0.05	0.2	ND	Pass
Cadmium	0.0167	0.05	0.2	ND	Pass
Lead	0.0167	0.05	0.5	ND	Pass
Mercury	0.0167	0.05	0.1	<LOQ	Pass

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by ICPMS SOP 6.06, 16 CCR § 5723



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# D100 Sunrise Orange #3234

Lab ID: 220330-659-MH-4

METRC Batch: METRC Sample

Sample ID: 2203PHS0312.11

Strain: cbd

Matrix: Other

Type: Other

Sample Size: 1oz

Produced:

Collected: 03/30/2022

Received: 03/30/2022

Completed: 04/01/2022

Batch: 3234

Producer

**Myriam's Hemp**

Lic. #

181 W Huntington Dr

Monrovia CA, CA 91016

## Residual Solvents

Pass

Analyte	LOD	LOQ	Limit	Results	Status
	µg/g	µg/g	µg/g	µg/g	
1,2-Dichloro-Ethane	0.33	1	1	ND	Pass
Acetone	0.33	1	5000	ND	Pass
Acetonitrile	0.33	1	410	ND	Pass
Benzene	0.33	1	1	ND	Pass
Butane	0.33	1	5000	ND	Pass
Chloroform	0.33	1	1	ND	Pass
Ethanol	0.33	1	5000	ND	Pass
Ethyl-Acetate	0.33	1	5000	ND	Pass
Ethyl-Ether	0.33	1	5000	ND	Pass
Ethylene Oxide	0.33	1	1	ND	Pass
Heptane	0.33	1	5000	ND	Pass
Isopropanol	0.33	1	5000	ND	Pass
Methanol	0.33	1	3000	ND	Pass
Methylene-Chloride	0.33	1	1	ND	Pass
n-Hexane	0.33	1	290	ND	Pass
Pentane	0.33	1	5000	ND	Pass
Propane	0.33	1	5000	ND	Pass
Toluene	0.33	1	890	ND	Pass
Trichloroethene	0.33	1	1	ND	Pass
Xylenes	0.33	1	2170	ND	Pass

LOQ = Limit of Quantitation; The reported result is based on a sample weight with the applicable moisture content for that sample; Unless otherwise stated all quality control samples performed within specifications established by the Laboratory. Analyzed by GCMS, SOP 6.01 CCR 5718



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Raquel Keledjian  
 Lab Director

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Attest all LQC samples performed and met in accordance with 16 CCR sec. 5730. This product has been tested by PH Solutions using valid testing methodologies and a quality system as required by state law. Values reported relate only to the product tested. PH Solutions makes no claims as to the efficacy, safety or other risks associated with any detected or non-detected levels of any compounds reported herein. This Certificate shall not be reproduced except in full, without the written approval of PH Solutions. Certified by Lab Director Dr. Raquel Keledjian





# Certificate of Analysis

QA SAMPLE - INFORMATIONAL ONLY

1 of 3

ICAL ID: 20230210-021  
Sample: CA230209-031-054  
ITM001286 - cbdMD-TPM-MT-1500-FS  
Strain: ITM001286 - cbdMD-TPM-MT-1500-FS  
Category: Ingestible  
Type: Tincture

CBDMD  
Lic. #  
10130 Perimeter Pkwy  
Charlotte, NC 28216  
Lic. #

Batch#: 30131T1.1  
Batch Size Collected:  
Total Batch Size:  
Collected: 02/14/2023; Received: 02/14/2023  
Completed: 02/14/2023

Moisture <b>NT</b>	$\Delta$ 9-THC <b>73.29 mg/unit</b>	CBD <b>1,702.81 mg/unit</b>	Total Cannabinoids <b>1,954.41 mg/unit</b>	Total Terpenes <b>NT</b>
Water Activity <b>NT</b>				

Summary	SOP Used	Date Tested	
Batch			Pass
Cannabinoids	POT-PREP-004 High	02/13/2023	Complete
Residual Solvents	RS-PREP-001	02/13/2023	Pass
Microbials	MICRO-PREP-001	02/13/2023	Pass
Mycotoxins	PESTMICO-LC-PREP-001	02/13/2023	Pass
Heavy Metals	HM-PREP-001	02/13/2023	Pass
Pesticides	PESTMICO-LC-PREP-001 / PEST-GC-PREP-001	02/13/2023	Pass



Scan to see results

## Cannabinoid Profile

1 Unit = bottle, 29.8 g. 1 mL = 0.95 g.

Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g	mg/mL	mg/unit	Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g	mg/mL	mg/unit
THCa	0.1841	0.0614	ND	ND	ND	ND	CBGa	0.2669	0.0890	ND	ND	ND	ND
$\Delta$ 9-THC	0.0794	0.0265	0.246	2.46	2.34	73.29	CBG	0.0915	0.0305	0.161	1.61	1.52	47.83
$\Delta$ 8-THC	0.0824	0.0275	ND	ND	ND	ND	CBN	0.1112	0.0371	0.057	0.57	0.54	16.93
THCV	0.0714	0.0238	ND	ND	ND	ND	<b>Total THC</b>			<b>0.25</b>	<b>2.46</b>	<b>2.34</b>	<b>73.29</b>
CBDa	0.0880	0.0293	ND	ND	ND	ND	<b>Total CBD</b>			<b>5.71</b>	<b>57.14</b>	<b>54.28</b>	<b>1702.81</b>
CBD	0.0755	0.0252	5.714	57.14	54.28	1702.81	<b>Total</b>			<b>6.56</b>	<b>65.58</b>	<b>62.30</b>	<b>1954.41</b>
CBDV	0.0741	0.0247	0.086	0.86	0.82	25.75							
CBC	0.2221	0.0740	0.295	2.95	2.80	87.81							

Total THC=THCa \* 0.877 +  $\Delta$ 9-THC; Total CBD = CBDa \* 0.877 + CBD. LOD= Limit of Detection, LOQ= Limit of Quantitation, ND= Not Detected, NR= Not Reported. Potency is reported on a dry weight basis. Instrumentation and analysis SOPs used: Cannabinoids:UHPLC-DAD(POT-INST-005),Moisture:Moisture Analyzer(MOISTURE-001),Water Activity:Water Activity Meter(WA-INST-002), Foreign Material:Microscope(FOREIGN-001). Density measured at 19-24 °C, Water Activity measured at 0-90% RH. All QA submitted by the client, All CA State Compliance sampled using SAMPL-SOP-001.

## Terpene Profile

Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g	Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g
---------	------------	------------	---	------	---------	------------	------------	---	------

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: HS-GC-MS; samples analyzed according to SOP TERP-INST-003.



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*Josh M Swider*

Josh Swider  
Lab Director, Managing Partner  
02/14/2023

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# Certificate of Analysis

QA SAMPLE - INFORMATIONAL ONLY

2 of 3

ICAL ID: 20230210-021  
Sample: CA230209-031-054  
ITM001286 - cbdMD-TPM-MT-1500-FS  
Strain: ITM001286 - cbdMD-TPM-MT-1500-FS  
Category: Ingestible  
Type: Tincture

CBDMD  
Lic. #  
10130 Perimeter Pkwy  
Charlotte, NC 28216  
Lic. #

Batch#: 30131T1.1  
Batch Size Collected:  
Total Batch Size:  
Collected: 02/14/2023; Received: 02/14/2023  
Completed: 02/14/2023

## Residual Solvent Analysis

Category 1	LOQ	LOD	Limit	Status	Category 2	LOQ	LOD	Limit	Status		
1,2-Dichloro-Ethane	ND	0.31	0.1032	1	Pass	Acetone	ND	51.246	2.572	5000	Pass
Benzene	ND	0.088	0.023	1	Pass	Acetonitrile	ND	0.798	0.266	410	Pass
Chloroform	ND	0.174	0.058	1	Pass	Butane	ND	4.849	1.114	5000	Pass
Ethylene Oxide	ND	0.757	0.252	1	Pass	Ethanol	ND	40.542	13.513	5000	Pass
Methylene-Chloride	ND	0.729	0.148	1	Pass	Ethyl-Acetate	ND	2.288	0.436	5000	Pass
Trichloroethene	ND	0.19	0.063	1	Pass	Ethyl-Ether	ND	2.869	0.593	5000	Pass
						Heptane	12.8	6.548	2.183	5000	Pass
						n-Hexane	ND	0.931	0.31	290	Pass
						Isopropanol	ND	5.037	1.679	5000	Pass
						Methanol	ND	4.665	1.555	3000	Pass
						Pentane	ND	17.255	5.752	5000	Pass
						Propane	ND	26.11	8.703	5000	Pass
						Toluene	ND	0.864	0.136	890	Pass
						Xylenes	ND	0.857	0.241	2170	Pass

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: HS-GC-MS; samples analyzed according to SOP RS-INST-003.

## Heavy Metal Screening

	LOQ	LOD	Limit	Status	
Arsenic	ND	0.009	0.003	1.5	Pass
Cadmium	ND	0.002	0.001	0.5	Pass
Lead	<LOQ	0.004	0.001	0.5	Pass
Mercury	ND	0.014	0.005	3	Pass

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: ICP-MS; samples analyzed according to SOP HM-INST-003.

## Microbiological Screening

Limit	Result	Status
CFU/g	CFU/g	
Aspergillus flavus	NR	NT
Aspergillus fumigatus	NR	NT
Aspergillus niger	NR	NT
Aspergillus terreus	NR	NT
STEC	Not Detected	Pass
Salmonella SPP	Not Detected	Pass

ND=Not Detected. Analytical instrumentation used:qPCR; samples analyzed according to SOP MICRO-INST-001.



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Josh Swider  
Lab Director, Managing Partner  
02/14/2023

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# Certificate of Analysis

QA SAMPLE - INFORMATIONAL ONLY

3 of 3

ICAL ID: 20230210-021  
Sample: CA230209-031-054  
ITM001286 - cbdMD-TPM-MT-1500-FS  
Strain: ITM001286 - cbdMD-TPM-MT-1500-FS  
Category: Ingestible  
Type: Tincture

CBDMD  
Lic. #  
10130 Perimeter Pkwy  
Charlotte, NC 28216  
Lic. #

Batch#: 30131T1.1  
Batch Size Collected:  
Total Batch Size:  
Collected: 02/14/2023; Received: 02/14/2023  
Completed: 02/14/2023

## Chemical Residue Screening

Category 1	LOQ	LOD	Status	Mycotoxins	LOQ	LOD	Limit	Status		
	µg/g	µg/g	µg/g		µg/kg	µg/kg	µg/kg	µg/kg		
Aldicarb	ND	0.030	0.009	Pass	B1	ND	6.2	2.05	Tested	
Carbofuran	ND	0.030	0.002	Pass	B2	ND	5	1.63	Tested	
Chlordane	ND	0.075	0.025	Pass	G1	ND	5.38	1.77	Tested	
Chlorfenapyr	ND	0.075	0.025	Pass	G2	ND	5	1.02	Tested	
Chlorpyrifos	ND	0.030	0.008	Pass	Ochratoxin A	ND	16.41	5.42	20	Pass
Coumaphos	ND	0.030	0.005	Pass	Total Aflatoxins	ND		20	Pass	
Daminozide	ND	0.033	0.011	Pass						
Dichlorvos	ND	0.030	0.007	Pass						
Dimethoate	ND	0.030	0.007	Pass						
Ethoprophos	ND	0.030	0.004	Pass						
Etofenprox	ND	0.030	0.006	Pass						
Fenoxycarb	ND	0.030	0.006	Pass						
Fipronil	ND	0.030	0.008	Pass						
Imazalil	ND	0.030	0.009	Pass						
Methiocarb	ND	0.030	0.005	Pass						
Mevinphos	ND	0.032	0.011	Pass						
Paclbutrazol	ND	0.030	0.006	Pass						
Parathion Methyl	ND	0.024	0.008	Pass						
Propoxur	ND	0.030	0.005	Pass						
Spiroxamine	ND	0.030	0.003	Pass						
Thiacloprid	ND	0.030	0.002	Pass						

Category 2	LOQ	LOD	Limit	Status	Category 2	LOQ	LOD	Limit	Status		
	µg/g	µg/g	µg/g	µg/g		µg/g	µg/g	µg/g	µg/g		
Abamectin	ND	0.039	0.013	0.3	Pass	Kresoxim Methyl	ND	0.030	0.007	1	Pass
Acephate	ND	0.063	0.021	5	Pass	Malathion	ND	0.030	0.005	5	Pass
Acequinocyl	ND	0.035	0.011	4	Pass	Metalaxyl	ND	0.030	0.003	15	Pass
Acetamiprid	ND	0.030	0.006	5	Pass	Methomyl	ND	0.030	0.006	0.1	Pass
Azoxystrobin	ND	0.030	0.003	40	Pass	Myclobutanil	ND	0.030	0.007	9	Pass
Bifenazate	ND	0.030	0.005	5	Pass	Naled	ND	0.030	0.005	0.5	Pass
Bifenthrin	ND	0.030	0.006	0.5	Pass	Oxamyl	ND	0.030	0.009	0.3	Pass
Boscalid	ND	0.030	0.007	10	Pass	Pentachloronitrobenzene	ND	0.054	0.018	0.2	Pass
Captan	ND	0.358	0.120	5	Pass	Permethrin	ND	0.030	0.002	20	Pass
Carbaryl	ND	0.030	0.004	0.5	Pass	Phosmet	ND	0.030	0.005	0.2	Pass
Chlorantraniliprole	ND	0.030	0.006	40	Pass	Piperonyl Butoxide	ND	0.030	0.006	8	Pass
Clofentezine	ND	0.030	0.005	0.5	Pass	Prallethrin	ND	0.055	0.018	0.4	Pass
Cyfluthrin	ND	0.056	0.019	1	Pass	Propiconazole	ND	0.037	0.012	20	Pass
Cypermethrin	ND	0.044	0.015	1	Pass	Pyrethrins	ND	0.030	0.002	1	Pass
Diazinon	ND	0.030	0.009	0.2	Pass	Pyridaben	ND	0.030	0.005	3	Pass
Dimethomorph	ND	0.030	0.009	20	Pass	Spinetoram	ND	0.030	0.003	3	Pass
Etoxazole	ND	0.030	0.003	1.5	Pass	Spinosad	ND	0.030	0.003	3	Pass
Fenhexamid	ND	0.030	0.008	10	Pass	Spiromesifen	ND	0.030	0.005	12	Pass
Fenpyroximate	ND	0.030	0.005	2	Pass	Spirotetramat	ND	0.030	0.006	13	Pass
Flonicamid	ND	0.046	0.015	2	Pass	Tebuconazole	ND	0.030	0.009	2	Pass
Fludioxonil	ND	0.048	0.016	30	Pass	Thiamethoxam	ND	0.030	0.006	4.5	Pass
Hexythiazox	ND	0.031	0.010	2	Pass	Trifloxystrobin	ND	0.030	0.002	30	Pass
Imidacloprid	ND	0.030	0.009	3	Pass						

### Other Analyte(s):

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: LC-MS-MS & GC-MS-MS; samples analyzed according to SOPs PESTMYCO-LC-INST-004 and PEST-GC-INST-003.



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San Diego, CA  
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Lic# C8-000047-LIC

*Josh M Swider*

Josh Swider  
Lab Director, Managing Partner  
02/14/2023

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## Certificate of Analysis



Sample Name	ITM001286 - cbdMD-TPM-MT-1500-FS	ICAL ID	20230210-021
Batch	30131T1.1	Registering Laboratory	San Diego
Client	CBDMD	Contact	Customer Service Team
Address		Address	8312 Miramar Mall San Diego, CA 92121
Telephone		Telephone	(858) 623-2740
Email		Email	questions@infinitecal.com
Sampler		COA Issue Date	February 16, 2023

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### Definitions

| <: Less Than | >: Greater Than | RP: Result Pending | MPN: Most Probable Number | CFU: Colony Forming Units | ---: Not Requested | NA: Not Applicable | ND: Not Detected | MDL: Method Detection Limit | LCMRL: Lowest Concentration Minimum Reporting Level | NT: Not Tested | ~: Estimated | TBA: To Be Advised | TNTC: Too numerous to count

### Microbial Plate Panel

Analyte	CFU/g	MDL	Client Limit <sup>1</sup>	Status <sup>2</sup>
Aerobic (APC)	<MDL	10	---	---
Coliforms	NT	10	---	---
<i>E. coli</i>	NT	10	---	---
Yeast & Mold	<MDL	10	---	---
<i>Enterobacteriaceae</i>	NT	10	---	---
<i>Salmonella spp.</i>	NT	10	---	---
<i>Listeria spp.</i>	<MDL	10	---	---

### Analysis Location

All analyses were completed by Infinite Chemical Analysis – San Diego.

### Analysis Comments

Method ID: MICRO-PLATE-001

<sup>1</sup>Client limit is self-selected and will be replaced by official CA state limits when they become available.

<sup>2</sup>Status of Pass/Fail based on client limit selected.

Josh Swider  
Lab Director, CEO  
February 16, 2023

## Certificate of Analysis

### Open Book Extracts

317 Lucy Garrett Road  
Roxboro North Carolina 27574 United States

<b>Sample Name:</b>	<b>cbdMD-TPM-MT-1500-FS</b>	<b>Eurofins Sample:</b>	<b>12546433</b>
<b>Project ID</b>	OPEN_BO_E-20230113-0007	<b>Receipt Date</b>	16-Jan-2023
<b>PO Number</b>	CVD	<b>Receipt Condition</b>	Ambient temperature
<b>Lot Number</b>	30131T1.1	<b>Login Date</b>	13-Jan-2023
<b>Sample Serving Size</b>	1 mL	<b>Date Started</b>	16-Jan-2023
		<b>Sampled</b>	Sample results apply as received
		<b>Online Order</b>	901-2023-E002618

Analysis	Specifications	Result
<b>Density by Gravimetric Analysis</b>		
Density		0.946 g/mL
<b>Determination of Melatonin by UPLC</b>		
Melatonin	5 - 6 mg/Serving Size	6.87 mg/Serving Size

Method References	Testing Location
<b>Density by Gravimetric Analysis (SPGP_S)</b>	<b>Food Integrity Innovation-Brea</b> 2951 Saturn Street, Unit C Brea, CA 92821 USA
NIST Handbook 133 - Checking the Net Contents of Packaged Goods, 2015 Edition (Modified)	
<b>Determination of Melatonin by UPLC (OC_MLTON_S)</b>	<b>Food Integrity Innovation-Brea</b> 2951 Saturn Street, Unit C Brea, CA 92821 USA
Internally Developed Method	

Testing Location(s)	Released on Behalf of Eurofins by
---------------------	-----------------------------------

<b>Food Integrity Innovation-Brea</b>	<b>Jason Mulligan - President Eurofins Botanical Testing Brea</b>
Eurofins Food Chemistry Testing US, Inc. 2951 Saturn Street Unit C Brea CA 92821 800-675-8375	

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# Certificate of Analysis

QA SAMPLE - INFORMATIONAL ONLY

1 of 3

ICAL ID: 20220916-003  
Sample: CA220916-016-085  
cbdMD-TIN-CM-6000-FS  
Strain: cbdMD-TIN-CM-6000-FS  
Category: Ingestible

cbdMD  
Lic #  
10130 Perimeter Pkwy  
Charlotte, NC 28216

Batch#: 22571T6.1  
Batch Size Collected:  
Total Batch Size:  
Collected: 09/19/2022; Received: 09/19/2022  
Completed: 09/19/2022

Lic #

Moisture <b>NT</b> Water Activity <b>NT</b>	<b>Δ9-THC</b> <b>82.80 mg/unit</b>	<b>CBD</b> <b>6,831.47 mg/unit</b>	<b>Total Cannabinoids</b> <b>7,112.31 mg/unit</b>	<b>Total Terpenes</b> <b>3.662 mg/g</b>
--	---------------------------------------	---------------------------------------	--	--

## Summary

Batch	SOP Used	Date Tested	Pass
Cannabinoids	POT-PREP-004 High	09/19/2022	Complete
Terpenes	TERP-PREP-001	09/19/2022	Complete
Residual Solvents	RS-PREP-001	09/19/2022	Pass
Microbials	MICRO-PREP-001	09/19/2022	Pass
Mycotoxins	PESTMYCO-LC-PREP-001	09/17/2022	Pass
Heavy Metals	HM-PREP-001	09/16/2022	Pass
Pesticides	PESTMYCO-LC-PREP-001/ PEST-GC-PREP-001	09/17/2022	Pass



Scan to see results

## Cannabinoid Profile

1 Unit = bottle, 30.47 g.

Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g	mg/unit	Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g	mg/unit
THCa	0.1841	0.0614	ND	ND	ND	CBDV	0.0741	0.0247	0.163	1.63	49.64
Δ9-THC	0.0794	0.0265	0.272	2.72	82.80	CBN	0.1112	0.0371	0.042	0.42	12.80
Δ8-THC	0.0824	0.0275	ND	ND	ND	CBGa	0.2669	0.0890	ND	ND	ND
THCV	0.0714	0.0238	ND	ND	ND	CBG	0.0915	0.0305	0.074	0.74	22.46
CBDa	0.0880	0.0293	ND	ND	ND	CBC	0.2221	0.0740	0.371	3.71	113.14
CBD	0.0755	0.0252	22.420	224.20	6831.47	<b>Total THC</b>			<b>0.27</b>	<b>2.72</b>	<b>82.80</b>
						<b>Total CBD</b>			<b>22.42</b>	<b>224.20</b>	<b>6831.47</b>
						<b>Total</b>			<b>23.34</b>	<b>233.42</b>	<b>7112.31</b>

Total THC=THCa \* 0.877 + Δ9-THC; Total CBD = CBDa \* 0.877 + CBD. LOD= Limit of Detection, LOQ= Limit of Quantitation, ND= Not Detected, NR= Not Reported. Potency is reported on a dry weight basis. Instrumentation and analysis SOPs used: Cannabinoids:UHPLC-DAD(POT-INST-005),Moisture:Moisture Analyzer(MOISTURE-001),Water Activity:Water Activity Meter(WA-INST-002), Foreign Material:Microscope(FOREIGN-001). Density measured at 19-24 °C, Water Activity measured at 0-90% RH. All QA submitted by the client, All CA State Compliance sampled using SAMPL-SOP-001.

## Terpene Profile

Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g	Analyte	LOQ (mg/g)	LOD (mg/g)	%	mg/g
α-Bisabolol	0.193	0.064	0.1370	1.370	Cedrol	0.207	0.069	ND	ND
δ-Limonene	0.449	0.150	0.0772	0.772	cis-Nerolidol	0.251	0.084	ND	ND
β-Caryophyllene	0.608	0.179	0.0648	0.648	Citronellol	0.598	0.120	ND	ND
α-Humulene	0.151	0.026	0.0352	0.352	δ-3-Carene	0.306	0.024	ND	ND
Menthol	0.215	0.072	0.0341	0.341	Eucalyptol	0.244	0.081	ND	ND
(-)-Guaiaol	0.154	0.029	0.0179	0.179	Fenchol	0.152	0.024	ND	ND
α-Cedrene	0.151	0.032	ND	ND	Fenchone	0.151	0.025	ND	ND
α-Pinene	0.151	0.022	ND	ND	γ-Terpinene	0.152	0.033	ND	ND
α-Terpinene	0.163	0.054	ND	ND	Geraniol	0.609	0.114	ND	ND
α-Terpineol	0.154	0.033	ND	ND	Geranyl Acetate	0.151	0.030	ND	ND
β-Eudesmol	0.227	0.076	ND	ND	Isoborneol	0.151	0.033	ND	ND
β-Myrcene	0.153	0.015	<LOQ	<LOQ	Linalool	0.154	0.036	ND	ND
β-Pinene	0.306	0.027	ND	ND	Pulegone	0.169	0.056	ND	ND
Borneol	0.154	0.024	ND	ND	p-Cymene	0.175	0.058	ND	ND
Camphene	0.151	0.017	ND	ND	Terpinolene	0.154	0.013	ND	ND
Camphor	0.306	0.055	ND	ND	trans-Nerolidol	0.222	0.074	ND	ND
Caryophyllene Oxide	0.602	0.113	<LOQ	<LOQ	<b>Total</b>			<b>0.3662</b>	<b>3.662</b>

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: HS-GC-MS; samples analyzed according to SOP TERP-INST-003.



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Josh Swider  
Lab Director, Managing Partner  
09/19/2022

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# Certificate of Analysis

QA SAMPLE - INFORMATIONAL ONLY

2 of 3

ICAL ID: 20220916-003  
Sample: CA220916-016-085  
cbdMD-TIN-CM-6000-FS  
Strain: cbdMD-TIN-CM-6000-FS  
Category: Ingestible

cbdMD  
Lic #  
10130 Perimeter Pkwy  
Charlotte, NC 28216  
Lic #

Batch#: 22571T6.1  
Batch Size Collected:  
Total Batch Size:  
Collected: 09/19/2022; Received: 09/19/2022  
Completed: 09/19/2022

## Residual Solvent Analysis

Category 1	LOQ	LOD	Limit	Status	Category 2	LOQ	LOD	Limit	Status	Category 2	LOQ	LOD	Limit	Status			
	µg/g	µg/g	µg/g	µg/g		µg/g	µg/g	µg/g	µg/g		µg/g	µg/g	µg/g	µg/g			
1,2-Dichloro-Ethane	ND	0.31	0.1032	1	Pass	Acetone	ND	51.246	2.572	5000	Pass	n-Hexane	ND	0.931	0.31	290	Pass
Benzene	ND	0.088	0.023	1	Pass	Acetonitrile	ND	0.798	0.266	410	Pass	Isopropanol	337.8	5.037	1.679	5000	Pass
Chloroform	ND	0.174	0.058	1	Pass	Butane	ND	4.849	1.114	5000	Pass	Methanol	ND	4.665	1.555	3000	Pass
Ethylene Oxide	ND	0.757	0.252	1	Pass	Ethanol	1459.5	40.542	13.513	5000	Pass	Pentane	ND	17.255	5.752	5000	Pass
Methylene-Chloride	ND	0.729	0.148	1	Pass	Ethyl-Acetate	ND	2.288	0.436	5000	Pass	Propane	ND	26.11	8.703	5000	Pass
Trichloroethene	ND	0.19	0.063	1	Pass	Ethyl-Ether	ND	2.869	0.593	5000	Pass	Toluene	ND	0.864	0.136	890	Pass
						Heptane	<LOQ	6.548	2.183	5000	Pass	Xylenes	ND	0.857	0.241	2170	Pass

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: HS-GC-MS; samples analyzed according to SOP RS-INST-003.

## Heavy Metal Screening

	LOQ	LOD	Limit	Status	
	µg/g	µg/g	µg/g	µg/g	
Arsenic	ND	0.009	0.003	1.5	Pass
Cadmium	ND	0.002	0.001	0.5	Pass
Lead	ND	0.004	0.001	0.5	Pass
Mercury	ND	0.014	0.005	3	Pass

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: ICP-MS; samples analyzed according to SOP HM-INST-003.

## Microbiological Screening

	Limit	Result	Status
	CFU/g	CFU/g	
Aspergillus flavus		NR	NT
Aspergillus fumigatus		NR	NT
Aspergillus niger		NR	NT
Aspergillus terreus		NR	NT
STEC		Not Detected	Pass
Salmonella SPP		Not Detected	Pass

ND=Not Detected. Analytical instrumentation used:qPCR; samples analyzed according to SOP MICRO-INST-001.



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3 of 3

ICAL ID: 20220916-003  
Sample: CA220916-016-085  
cbdMD-TIN-CM-6000-FS  
Strain: cbdMD-TIN-CM-6000-FS  
Category: Ingestible

cbdMD  
Lic #  
10130 Perimeter Pkwy  
Charlotte, NC 28216  
Lic #

Batch#: 22571T6.1  
Batch Size Collected:  
Total Batch Size:  
Collected: 09/19/2022; Received: 09/19/2022  
Completed: 09/19/2022

## Chemical Residue Screening

Category 1	LOQ	LOD	Status	Mycotoxins	LOQ	LOD	Limit	Status		
	µg/g	µg/g	µg/g		µg/kg	µg/kg	µg/kg	µg/kg		
Aldicarb	ND	0.030	0.009	Pass	B1	ND	6.2	2.05	Tested	
Carbofuran	ND	0.030	0.002	Pass	B2	ND	5	1.63	Tested	
Chlordane	ND	0.075	0.025	Pass	G1	ND	5.38	1.77	Tested	
Chlorfenapyr	ND	0.075	0.025	Pass	G2	ND	5	1.02	Tested	
Chlorpyrifos	ND	0.030	0.008	Pass	Ochratoxin A	ND	16.41	5.42	20	Pass
Coumaphos	ND	0.030	0.005	Pass	Total Aflatoxins	ND		20	Pass	
Daminozide	ND	0.033	0.011	Pass						
Dichlorvos	ND	0.030	0.007	Pass						
Dimethoate	ND	0.030	0.007	Pass						
Ethoprophos	ND	0.030	0.004	Pass						
Etofenprox	ND	0.030	0.006	Pass						
Fenoxycarb	ND	0.030	0.006	Pass						
Fipronil	ND	0.030	0.008	Pass						
Imazalil	ND	0.030	0.009	Pass						
Methiocarb	ND	0.030	0.005	Pass						
Mevinphos	ND	0.032	0.011	Pass						
Paclbutrazol	ND	0.030	0.006	Pass						
Parathion Methyl	ND	0.024	0.008	Pass						
Propoxur	ND	0.030	0.005	Pass						
Spiroxamine	ND	0.030	0.003	Pass						
Thiacloprid	ND	0.030	0.002	Pass						

Category 2	LOQ	LOD	Limit	Status	Category 2	LOQ	LOD	Limit	Status		
	µg/g	µg/g	µg/g	µg/g		µg/g	µg/g	µg/g	µg/g		
Abamectin	ND	0.039	0.013	0.3	Pass	Kresoxim Methyl	ND	0.030	0.007	1	Pass
Acephate	ND	0.063	0.021	5	Pass	Malathion	ND	0.030	0.005	5	Pass
Acequinocyl	ND	0.035	0.011	4	Pass	Metalaxyl	<LOQ	0.030	0.003	15	Pass
Acetamiprid	ND	0.030	0.006	5	Pass	Methomyl	ND	0.030	0.006	0.1	Pass
Azoxystrobin	ND	0.030	0.003	40	Pass	Myclobutanil	ND	0.030	0.007	9	Pass
Bifenazate	ND	0.030	0.005	5	Pass	Naled	ND	0.030	0.005	0.5	Pass
Bifenthrin	ND	0.030	0.006	0.5	Pass	Oxamyl	ND	0.030	0.009	0.3	Pass
Boscalid	ND	0.030	0.007	10	Pass	Pentachloronitrobenzene	ND	0.054	0.018	0.2	Pass
Captan	ND	0.358	0.120	5	Pass	Permethrin	ND	0.030	0.002	20	Pass
Carbaryl	ND	0.030	0.004	0.5	Pass	Phosmet	ND	0.030	0.005	0.2	Pass
Chlorantraniliprole	ND	0.030	0.006	40	Pass	Piperonyl Butoxide	ND	0.030	0.006	8	Pass
Clofentezine	ND	0.030	0.005	0.5	Pass	Prallethrin	ND	0.055	0.018	0.4	Pass
Cyfluthrin	ND	0.056	0.019	1	Pass	Propiconazole	ND	0.037	0.012	20	Pass
Cypermethrin	ND	0.044	0.015	1	Pass	Pyrethrins	ND	0.030	0.002	1	Pass
Diazinon	ND	0.030	0.009	0.2	Pass	Pyridaben	ND	0.030	0.005	3	Pass
Dimethomorph	ND	0.030	0.009	20	Pass	Spinetoram	ND	0.030	0.003	3	Pass
Etoxazole	ND	0.030	0.003	1.5	Pass	Spinosad	ND	0.030	0.003	3	Pass
Fenhexamid	ND	0.030	0.008	10	Pass	Spiromesifen	ND	0.030	0.005	12	Pass
Fenpyroximate	ND	0.030	0.005	2	Pass	Spirotetramat	ND	0.030	0.006	13	Pass
Flonicamid	ND	0.046	0.015	2	Pass	Tebuconazole	ND	0.030	0.009	2	Pass
Fludioxonil	ND	0.048	0.016	30	Pass	Thiamethoxam	ND	0.030	0.006	4.5	Pass
Hexythiazox	ND	0.031	0.010	2	Pass	Trifloxystrobin	ND	0.030	0.002	30	Pass
Imidacloprid	ND	0.030	0.009	3	Pass						

### Other Analyte(s):

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: LC-MS-MS & GC-MS-MS; samples analyzed according to SOPs PESTMYCO-LC-INST-004 and PEST-GC-INST-003.



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# **Maryland Hemp Industry EIR.pdf**

Uploaded by: Nicholas Patrick

Position: FWA



**THE STATUS OF THE MARYLAND HEMP INDUSTRY  
&  
IMPLICATIONS OF CHANGING THE LEGAL STATUS OF  
 $\Delta^8$ (DELTA-8)**

An Economic Impact Report  
Prepared by the  
Maryland Healthy Alternatives Association  
For  
Presentation to the Maryland Legislative Finance  
Committee Honorable Senator Brian Feldman and the  
Honorable Representative Joseline Pena-Melnyk

**Highlights**

- The Maryland hemp industry represents over \$15.5M in estimated capital investment for the 62 licensed growers which consists of 25% minority owned businesses
- Maryland's hemp market yields an estimated \$370M in product sales
- 30% of all Maryland CBD/Hemp specialty retail businesses identify as "Black owned" on Google listings

My name is Nicholas Patrick, Co-Founder of the Maryland Healthy Alternatives Association. We are pleased to have this opportunity to provide testimony that describes our understanding of the Hemp industry in Maryland, and its personal and economic impact across a growing market of consumers who are currently free to seek locally sourced natural alternatives to traditional pharmaceutical products. Our membership represents statewide growers, CBD/Hemp specialty stores and manufacturers of Hemp and CBD products (hereinafter Hemp) that have developed a profitable Hemp industry in Maryland whose impact extends beyond our political jurisdiction.

Our Association is chartered as a 501 (c) (6) organization that **directly represents and supports Hemp businesses in Maryland**. However, the products provided by our members find their way into a broad and



vast consumer market.

And while our association **does not represent them**, these diverse points of sale service tens of thousands of consumers and hundreds of businesses. Well over 10,000 tobacco and other age-gated retail sales located in service stations, big-box stores, corner groceries, and over 128 specialized “smoke” and “vape” shops.<sup>1</sup> Additionally, there are hundreds of locations where thousands of professional health and wellness providers such as acupressure, acupuncture, massage therapy, chiropractic care and traditional physical therapy use and sell Hemp enhanced products.<sup>2</sup>

In our advocacy role, we are dedicated to assisting and supporting corporate and consumer members, as well as the general public, to make informed choices about providers, products and to understand the political and economic pressures that challenge the Hemp marketplace.

However, the key advocacy role of our Association is to represent our membership to our regulating bodies as to what legislation and economic development is required to help support our CBD industry. We also recognize our chartered responsibility to hold both ourselves, industry and regulatory agencies accountable for their actions, or inactions.

Report Objectives: The specific objective of this report is to provide regulatory agencies and entities with a better understanding of:

- The significant investment of ‘mom-and-pop,’ racial, ethnic and gender minorities who makeup Hemp growers/retailers/processors,
- The potential destruction of and adverse economic impact to the Maryland Hemp market.
- The scope and impact of Hemp product use in Maryland,
- The unique inter-relationship between DELTA-9 and DELTA-8 products,

There are at least 11,850 individual, licensed, age-gated points of sale for tobacco and or e-cigarette, and vape products in Maryland where consumers can purchase Hemp-based products.<sup>3</sup> Our experience shows, and it’s reasonable to assume, that many of these licensed locations offer

<sup>1</sup> 2022 Annual Report of Tobacco Retailers,” Alcohol & Tobacco Commission, Andrew Waters, Director of Research Division, November 9, 2022.

<sup>2</sup>DOH Licensing Boards & Commissions; [://health.maryland.gov/Pages/licensing-boards.aspx](https://health.maryland.gov/Pages/licensing-boards.aspx), retrieved November 8, 2022,

a broad range of other products containing Hemp. Additionally, there are over 3,300 licensed massage therapists at hundreds of locations who provide traditional and alternative care that, with high probability, use and sell Hemp products. The animal health market, both in big box and at veterinary clinics, has embraced CBD products, and their owners and pets rely on the beneficial results.

Since the 2018 'Farm Bill', P.L. 115-334 & Maryland House Bill 698] over 60 Maryland producers acquired licensure and established agricultural production of Hemp. In-state licensed farmers have over 6,580 acres in field production across the state. Additionally, there are over 202,775 sq. ft of greenhouse production. The Maryland Hemp market production profile shows that over 69% of gross products are used for CBD extraction, 17% for fiber, 5% for grain and 8% for seed. <sup>4</sup>

The Maryland Hemp industry represents over \$15.5M in estimated capital investment for the 62 licensed growers which consists of 25% minority owned businesses (Based on data collected from The Maryland Department of Agriculture) and an additional 2.5 million in estimated capital invested for the 50 CBD/Hemp specialty shops. Maryland's Hemp market yields an estimated \$370M in product sales. <sup>5</sup>

It is unclear how many Hemp products are purchased outside the state and enter the Maryland market. Although Maryland law requires all importers to document purchases from a producer either licensed by Maryland, or by another State, acquiring these data are difficult and imprecise. Additionally, there are documented glitches in this data entry process using the METRC system. The best defense against such importation challenges is to continue to support and encourage the existing Maryland Hemp producers to bank on Maryland 'home-grown' products.

Regional market impact is unknown. There is little data on commerce with adjacent states and regional sales. We are beginning to collect this information from members, state agencies and private data providers. We do know national sales data collected from various sources show ongoing sales of CBD products were over \$4.17B in 2022, projected to increase to \$4.4B by 2024. <sup>6</sup>

The Hemp industry currently provides product producers with an array of minor cannabinoids including Delta 8. These products are used to enhance the Hemp products offered to the public. It is estimated by the Association that over 6,500 acres of Hemp, mainly for CBD/Delta 8 production, is grown annually for the Maryland Hemp Cannabinoid trade. Nationally, the main profit center of the immature Hemp industry is the supply of Delta 8 to the Hemp Cannabinoid industry estimated at 75% of total output. <sup>7</sup>Banning Delta 8 would terminally cripple the Maryland market and impact the national Hemp industry from which it could never recover.

<sup>4</sup> Maryland Department of Agriculture, Jim Drews, provided in interview November 7, 2022<sup>5</sup> Market Report, Maryland Hemp Market <http://headset.io/industry-reports/a-high-level-overview-of-the-maryland-cannabis-market>, Retrieved November 8, 2022

<sup>6</sup> National CBD sales statistics, Statista Inc., Retrieved November 8, 2022. [www.statista.com/topics/6262/cbd-retail-in-the-united-states/#dossierContents\\_\\_outerWrapper](http://www.statista.com/topics/6262/cbd-retail-in-the-united-states/#dossierContents__outerWrapper)<sup>7</sup> Market Report, "Hemp Shrinkage," PanXchange, quoted by J.Grillo, correspondence dated October 12, 2022.

## **Testimony of the Maryland Healthy Alternatives Association**

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Another potentially impacted sector, and a significant market concern, is from the tobacco industry. In a recently cited report 41% of tobacco quitters successfully replaced tobacco with Hemp-based smoking products. <sup>8</sup>

Historically, Hemp has been a significant product of the early Americas.

"Until 1883, 90% of all paper in the world was made with hemp fiber. This included paper money, books, news print, maps, stocks, bonds and books. The first draft of the Declaration of Independence was written on Dutch hemp paper and the second draft was completed on July 2, 1776."

<sup>9</sup>

Besides augmenting the THC medicinal market and personal care products, Hemp is 100% green, used in food and dairy products, flour, feed and fuel, paint, construction materials, and the fabric industry. The Hemp industry is providing nationally impacting

products to millions of consumers. There are over 25,000 products cataloged as Hemp-based.<sup>10</sup>

Because of the complexity and unknowns of the inter-related markets, there may be significant unintended consequences from well-intended regulations. Your actions could easily terminate the Maryland Hemp growers and CBD/Hemp specialty stores as well as those in adjacent states.

Before the disruptive regulation of 1937, Hemp's traditional medical uses have been known for over 8,000 years. Hemp products were pervasive in North America in the 17th century, and derivatives commonly used in medicinal preparations labeled as "Hemp" until regulation effectively banned production.

The Marihuana Tax Act of 1937, Pub.L. 75–238, 50 Stat. 551, enacted August 2, 1937, was a United States Act that taxed cannabis, and promulgated restrictions on its growth, possession and use. History shows that the legislation was proposed and rapidly pushed through Congress by a few highly influential business leaders who represented the powerful special interest groups in competing industries. Even the American Medical Association attempted to reverse the legislation once they realized that the legislature purposely used the name 'Marihuana' in place of Hemp to hide the actual reason for removing Hemp from the marketplace.<sup>11</sup>

<sup>8</sup> Cannabidiol reverses attentional bias to cigarette cues in a human experimental model of tobacco withdrawal, [www.ncbi.nlm.nih.gov/pmc/articles/PMC6099309/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC6099309/), Retrieved November 8, 2022.<sup>9</sup> History of Industrial Hemp, [/www.treefreehemp.com](http://www.treefreehemp.com), Retrieved November 8, 2022  
<sup>10</sup> Many Uses of Hemp, [/www.hempaware.com](http://www.hempaware.com), Retrieved November 9, 2022 <sup>11</sup> The history of Hemp [//cannabis.net](http://cannabis.net)) retrieved November 3, 2022

Testimony of the Maryland Healthy Alternatives Association

The prohibition act lasted 81 years and disrupted the growth by many farmers who depended on this cash crop. Historical evidence of the importance of Hemp is shown by the action in 1943 when a Federal program (Hemp for Victory) encouraged the growth of over one million acres of Hemp for the war effort. The Controlled Substances Act of 1970, repealed the 1937 law, but operationally banned the production of industrial hemp because the DEA refused to issue tax stamps. The USDA final rule published October 31, 2019, established the U.S. Domestic Hemp Production Program.

History provides adequate evidence that the Hemp industry has undergone significant damage by the imposition of misguided legislation by rule makers who were subject to powerful special interest groups. <sup>12</sup>

As part of the post prohibition era The “Farm Bill,” 2018, P.L.115-334 legalized hemp, (*Cannabis sativa L.*) and derivatives with concentrations not to exceed 0.3 percent of delta-9-tetrahydrocannabinol (THC). However, there is nothing within the bill that prohibits deriving Delta 8 from hemp and enhancing the products with the compound. <sup>13</sup> Supporting this is a panel of the U.S. Court of Appeals for the Ninth Circuit stated in March 2022 in a 3-0 ruling, “this Court will not substitute its own policy judgment for that of Congress.”<sup>14</sup> We believe the Maryland study group outcome and subsequent regulatory actions should reflect the same.

This has led to changes in policy which continue to evolve. One indicator of change is the first major policy reformation where the FDA recognized three food products derived from hemp seeds (which are CBD/THC free) through the Agency’s Generally Recognized as Safe (GRAS) process. <sup>15</sup>

In addition, the FDA has identified that its highest concern is “the marketing of CBD products that make unsubstantiated therapeutic claims to prevent,

<sup>12</sup>“Why was Hemp Banned in the U.S?., Retrieved November 6, 2022

//greathemp.net/why-hemp-was-banned-in-1937/

<sup>13</sup>“What is the Difference Between Delta 8 and Delta 9”, Retrieved November 9, 2022,

www.discovermagazine.com/sponsored/what-is-the-difference-between-delta-8-thc-and-delta-9-t-hc<sup>14</sup> AK FUTURES LLC., v. BOYD STREET DISTRO, LLC., D.C. No. 8:21-cv-01027- JVS-ADS, 9th Circuit Court of Appeals, March 18, 2022, Retrieved from

://cdn.ca9.uscourts.gov/datastore/opinions/2022/05/19/21-56133.pdf November

18, 2022,<sup>15</sup> FDA CFSAN Update, Retrieved November 8, 2022,

//www.fda.gov/food/cfsan-constituent-updates/fda-responds-three-gras-notices-hemp-seed-derivatives-ingredients-use-human-food

### **Testimony of the Maryland Healthy Alternatives Association**

diagnose, mitigate, treat, or cure serious diseases, but have not obtained new drug approvals.” <sup>16</sup>

We agree with and fully support and promote the FDA concerns and observations for the need of qualitative laboratory analysis and adoption of standardized manufacturing processes.

We also join with the FDA recommendations in public testimony for robust public input in decision and policy making processes, which include by extension, other Federal agencies, state regulatory bodies and all members of the related industries.<sup>17</sup>

The FDA maintains regulatory oversight of food/beverages, drugs and cosmetics (FD&C Act) which contain hemp-derived products. However, there is no specific regulatory jurisdiction for CBD in consumable hemp products not covered under the FD&C regulations.<sup>18</sup>

And although CBD is not currently an approved ingredient in supplements, foods, and beverages, the extraction of minor cannabinoids from Hemp products with less than the 0.3% THC and their use to enhance Cannabis products from state-approved venues is not further Federally regulated, and its legality varies from state to state.

There are 15 states that restrict the sale and use of Delta 8 products, with another 6 states pending legal action.<sup>19</sup>

This confusing status and patch-work of state actions negatively impacts investment in the significant portion of the Hemp vertical market. Our Hemp growers provide valuable minor cannabinoid extracts to the main-stream, state-licensed Cannabis industry. To reduce this confusion and uncertainty it would benefit all stakeholders if states would recuse themselves from such regulation and relinquish such action to the FDA.

In some business case scenarios Hemp growers and processors who extract Delta 8 constituents are providing these extracts to licensed Cannabis producers.

<sup>16</sup> IBID

<sup>17</sup> IBID

<sup>18</sup> Federal Regulations for CBD, Retrieved November 9, 2022, [//www.sleepline.com/is-cbd-regulated-by-the-fda/](https://www.sleepline.com/is-cbd-regulated-by-the-fda/)

<sup>19</sup>“What is the Difference Between Delta 9 and Delta 8”, Retrieved November 9, 2022, [www.discovermagazine.com/sponsored/what-is-the-difference-between-delta-8-thc-and-delt](https://www.discovermagazine.com/sponsored/what-is-the-difference-between-delta-8-thc-and-delt)

Members of the Hemp industry that engage in these processes and subsequent sales do not produce end-products that claim to diagnose, cure, mitigate, treat or prevent various diseases, in violation of the FD&C Act. This brings into question who, if any, entity has clear jurisdiction over the extraction process and sale of extracts to state licensed businesses. It is our Association's contention that the FDA should act on this question in lieu of various states. We support a positive, regulatory approach to Delta 8 and not the imposition of another era of prohibition and denial of the marketplace.

A critical public health component that must be implemented across the two industries is the standardization of testing and measurement processes for Cannabis and Hemp products that are currently absent. We strongly encourage state and Federal regulators to take a leadership position in developing and promulgation of laboratory standards and practices.

It has been the current trend of Big Cannabis to propose, both publicly and privately to key decision makers, that the Delta 8 marketplace be relegated to their purview, and that the very long well established Hemp industry be excluded, or eradicated.

Our Association suggests that a cooperative venture between the Hemp and Cannabis market entities be promoted. We feel that such an approach would best serve the public and industry stakeholders. We are concerned for all parties that well-intended but misguided actions that damage the long-term traditional Hemp market by legislation or regulation could clearly be considered in restraint of trade. Such actions could result in costly and disruptive legal action among all parties, with serious unintended consequences for the public.

In 2019, according to New Frontier Data, the national hemp industry already produced \$1.1 billion in revenue, with \$2.6 billion expected by 2022. After the direct industrial revenue, increases in employment rates are the most noticeable economic effect. As of 2019, legal cannabis created 211,000 full-time jobs in the US.<sup>20</sup> In comparison, the Maryland cannabis sales totaled about \$370M in cannabis sales from January through August 2021. <sup>21</sup>

<sup>20</sup>"The Economic Impacts of Hemp Regulation Globally"

//canxchange.eu/blog/the-economic-impacts-of-hemp-regulation-globally-kly5r Retrieved

November 2, 2022

<sup>21</sup>“Market Report,” Retrieved November 8, 2022,  
//headset.io/industry-reports/a-high-level-overview-of-the-maryland-cannabis-market

## **Testimony of the Maryland Healthy Alternatives Association 8**

In contrast, Maryland Hemp wholesale sales are estimated at \$1.4M, as cited in a 2022 USDA report.<sup>22</sup>

In a Baltimore Sun article, Hope Wiseman, owner of Mary & Main dispensary, stated that “it would take millions of dollars for someone to break into today’s tightly regulated [Cannabis] market,” but said, “...she knows folks of color who are building businesses around delta-8.”<sup>23</sup>

To better identify racial, ethnic and gender diversity in the Maryland Hemp market, our Association In fact, the stinging lack of diversity in the initial Maryland medical cannabis licensure has been highlighted by claims of racial, ethnic and gender disparity resulting in extensive press coverage and legal actions.

Only 10% of the program’s investors are minorities, according to a recent study. In an attempt to achieve some level of parity the MMMC opened licensing in 2019, but the effort has been mired in litigation and investigations.<sup>24</sup>

**To further address these previous inequities, our association recommends that existing licensed Hemp growers be given an award preference within the State procurement evaluation and selection process for Recreational Cannabis licensing.**

We are highly concerned that the dismantling of the Hemp infrastructure in Maryland will have a further negatively disproportionate effect on the minority stakeholders who could not achieve Cannabis licensure. Moving Hemp under the Cannabis licensing process is the equivalent of the effective elimination of small farmsteads and CBD specialty stores in lieu of massive agricultural conglomerates and multi-million dollar cannabis dispensaries. In Maryland, Hemp producers are essentially traditional outdoor farmers, not highly evolved and vertically integrated technical growers of the Cannabis trade and the hemp speciality stores are small, family owned businesses as opposed to the massive dispensaries.



<sup>22</sup> USDA NASS report,

[://www.nass.usda.gov/Statistics\\_by\\_State/Maryland/Publications/News\\_Releases/2022/2022-MD Hemp Press-Release.pdf](http://www.nass.usda.gov/Statistics_by_State/Maryland/Publications/News_Releases/2022/2022-MD_Hemp_Press-Release.pdf), retrieved November 10, 2022

<sup>23</sup> Giacomo Bologna, May 12, 2022, "There is a Rapidly Expanding Unregulated Competitor...Delta 8, Baltimore Sun, retrieved November 18,

2022,[://www.baltimoresun.com/business/bs-bz-delta-8-maryland-20220512-uwdu3gvhcfahfc7jyc7hwakxre-story.html](http://www.baltimoresun.com/business/bs-bz-delta-8-maryland-20220512-uwdu3gvhcfahfc7jyc7hwakxre-story.html)

<sup>24</sup> Article from Marijuana Business Journal, The Baltimore Sun, retrieved November 18, 2022 from [//mjbizdaily.com/maryland-medical-marijuana-market-ascends-but-diversity-issues-linge](http://mjbizdaily.com/maryland-medical-marijuana-market-ascends-but-diversity-issues-linge)

r/#:~:text=Only%2010%25%20of%20the%20program's%20investors%20are%20minorit

ies%2C,fall%20hired%20outside%20consultants%20to%20conduct%20two%20investigations%3A, Retrieved November 7, 2022.

## Testimony of the Maryland Healthy Alternatives Association

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Because of the demand of the Cannabis market for Delta 8 enhancements, the majority of these traditional farmers produce Hemp products whose primary cash-crop is the extracted Delta 8 components. One viewpoint we suggest is that this free marketplace could easily be up-ended by the instigation of biased law and regulation by well-funded MSOs who favor removing the Delta 8 processing from the traditional Hemp farmers, and vesting it within their own organizations.

Maryland is not alone. Other states are grappling with Delta 8 concerns. In lieu of clear decisive FDA guidance in this matter, and looming concerns over potential market upheaval, over a dozen States have reviewed their options to act or stay silent at this time. The similar concerns as presented in this document have resulted in Tennessee, Colorado, Kentucky and Virginia all failing to address the issue, and Maryland and Minnesota at least enacting age-gated sales of CBD enhanced products. <sup>25</sup>

Additionally, there are many reported instances of enforcement agencies in other states criminally citing and closing retail outlets who sell CBD derived products as though they were under Schedule 1 controls, only to have these actions reversed in litigation. Clearly, the states that are early adopters of potentially over-reaching regulatory approaches potentially face long-term litigation with eventual

consequential damage awards.

The economic impact of actions which ban CBD/Delta8 production by the Maryland Hemp industry would create an instant estimated capital loss of over \$15M and \$350M of annual sales. This action would functionally terminate over 60 growers and affect hundreds of active and profitable businesses. For growers and cultivators, this would result in an effective business disenfranchisement of this class of owner/operators; for CBD/Hemp specialty retailers a loss of sales totaling 70% of total sales effectively destroying them and end users, the loss of product options

The loss of Maryland sales tax revenue from these establishments is estimated to exceed \$21M of non-recoverable funds. In addition, there would be a corresponding reduction in corporate taxation. We also estimate the State paying out well over \$2M of unemployment compensation and related social service benefits and economic security payments.

<sup>25</sup> Article from CBD Thinker, //cbdthinker.com/is-delta-8-thc-legal/, retrieved November 10, 2022

## **Testimony of the Maryland Healthy Alternatives Association**

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In addition to these recurring losses for industry and government, there will be the loss of startup capital, potential calling in of loans, bankruptcy filings and the personal impact to staff and families.

In summary, we focus on these key messages:

- Our Association is seeking an equitable outcome. We seek cooperation not competition in a supportive venture with Big Cannabis MSOs.
- We ask that you defer precipitous actions which, although well intended, may have significant negative consequences for this complex and not fully understood marketplace.
- We offer guidance, input, and access to our constituent data, and

finally,

We welcome your support for the century-old Hemp farming community that is a unique and valuable member of the Maryland marketplace.

Thank you for accepting our testimony in this important matter.

# **MHAA Suggested Amendments.pdf**

Uploaded by: Nicholas Patrick

Position: FWA

# Hemp Industry Amendment Requests

This document was created through a collaborative effort by the Maryland Farm Bureau, Maryland Hemp Coalition and the Maryland Healthy Alternatives Association. **Our Associations suggest that a cooperative venture between the Hemp and Cannabis market entities be promoted.** Such an approach would best serve the public and industry stakeholders. Provided language below is to assist with establishing a foundation for this effort. Below are amendments to SB0516. Our requests for amendments and additions are in **RED-BOLD** font.

## Amendments to Cannabis Reform Bill- SB0516

### Amendments

36-1103.

• AMEND Page 69, lines 23-27: **(A) (1) A PERSON MAY NOT SELL OR DISTRIBUTE A PRODUCT INTENDED FOR HUMAN CONSUMPTION OR INHALATION THAT CONTAINS MORE THAN 0.5 MILLIGRAMS OF TETRAHYDROCANNABINOL PER SERVING OR 2.5 MILLIGRAMS OF TETRAHYDROCANNABINOL 0.3% DELTA-9- TETRAHYDROCANNABINOL ON A DRY WEIGHT BASIS...**

- **NOTE:** The following language criminalizes federally legal hemp CBD products. Products that comply with the 0.3% delta-9-THC limits are criminalized by this clause. This would effectively kill the Full Spec Hemp CBD Industry.
- **NOTE:** Supporting this is a panel of the U.S. Court of Appeals for the Ninth Circuit who stated in March of 2022 with a 3-0 ruling, that “A straightforward reading of § 1639o yields a definition of hemp applicable to all products that are sourced from the cannabis plant, contain no

more than 0.3 percent delta-9 THC, and can be called a derivative, extract, cannabinoid, or one of the other enumerated terms”

• STRIKE OUT Page 70, lines 8-10: ~~**(B) A PERSON MAY NOT SELL OR DISTRIBUTE A CANNABINOID PRODUCT THAT IS NOT DERIVED FROM NATURALLY OCCURRING BIOLOGICALLY ACTIVE CHEMICAL CONSTITUENTS.**~~

- **NOTE:** Supporting this is a panel of the U.S. Court of Appeals for the Ninth Circuit who stated in March of 2022 with a 3-0 ruling, that “the source of the product - **not the method of manufacture** - is the dispositive factor for ascertaining whether a product is synthetic”
- **NOTE:** We have a model for regulation of these products that incorporates the MMCC recommendations. **SEE REFINED HEMP PRODUCT REGS DOCUMENT.**
- **NOTE:** It is well known in both the hemp industry as well as the medical/adult-use cannabis industry that not all cannabinoids, in the plant *Cannabis sativa* L., can be isolated or tested for, using current technology and testing standards, to determine if said cannabinoids are naturally occurring or not. There are approximately 160 known naturally occurring cannabinoids, but independent testing laboratories can only test for up to 24 cannabinoids. That means **only 13% of the known naturally occurring cannabinoids can be tested for using current technology and testing standards.**

# Refined Hemp Product Regs

This document was created through a collaborative effort by the Maryland Hemp Coalition, the Maryland Healthy Alternatives Association and incorporates results from the Maryland Medical Cannabis Commission summer study report mandated by Chapter 511/512 of the acts of 2022. **Our Associations suggest that a cooperative venture between the Hemp and Cannabis market entities be promoted.** Such an approach would best serve the public and industry stakeholders. Provided language below is to assist with establishing a foundation for this effort. Our requests for amendments and additions are in **RED-BOLD** font.

## AMEND SB0516

1-303.

- Page 6, lines 16-17: **TWO SHALL BE KNOWLEDGEABLE AND EXPERIENCED IN THE CANNABIS INDUSTRY; AND TWO SHALL BE KNOWLEDGEABLE AND EXPERIENCED IN THE HEMP INDUSTRY**

1-309.2.

- Page 14, line 2: **ADD - (VI) THREE REPRESENTATIVES FROM THE HEMP INDUSTRY;**
- Page 14, line 3: ~~(VI)~~ **(VII)**
- Page 14, line 6: ~~(VII)~~ **(VIII)**
- Page 14, line 3: ~~(VII)~~ **(IX)**

## **ADDITIONS** (to appropriate sections)

## **DEFINITIONS**

(a) “Acceptable hemp thc level” means a delta-9-tetrahydrocannabinol concentration of less than 0.3%.

(b) “Commission” means the same as defined in 1-101. Article- Alcoholic Beverages (as defined in HB0556)

**(c) “Contaminants unsafe for human consumption” means any microbe, fungus, yeast, mildew, herbicide, pesticide, fungicide, residual solvent, heavy metal, or other contaminant found in an amount that exceeds the acceptable limitations established under State law or regulation.**

**(d) “Distribute” means to sell or hold for future sale, offer for sale, barter, or otherwise supply to a consumer.**

**(e) (1) “Hemp Extract Product” means a hemp product intended for consumption.**

**(2) “Hemp Extract Product” includes a hemp product intended for consumption that is manufactured or distributed in the State or for interstate commerce that is:**

**(i) produced, stored, transported, or processed in a facility bonded in accordance with this subtitle; and**

**(ii) labeled with a brand name and descriptors including flavor, size or volume, and specific cannabinoid content.**

**(f) (1) “Refined hemp” means a derivative of hemp in which a cannabinoid other than delta-9-tetrahydrocannabinol, or an isomer derived from such a cannabinoid, is found in a concentration greater than 0.3%.**

**(2) “Refined hemp” does not include:**

**(i) Cannabidiol (CBD);**

**(ii) Cannabidivarin (CBDV);**

**(iii) Cannabichromene (CBC);**

**(iv) Cannabichromivarin (CBCV);**

**(v) Cannabigerivarin (CBGV);**

**(vi) Cannabigerol (CBG);**

**(vii) Cannabinol (CBN);**

**(viii) Delta-9-Tetrahydrocannabinol ( $\Delta^9$  - THC);**



- (ix) Tetrahydrocannabivarin (THCV); and
- (x) Their acidic forms, including but not limited to cannabidiolic acid, Cannabigerolic acid and tetrahydrocannabinolic acid.

## **TESTING REQUIREMENTS**

- (a) A person shall receive a certificate of analysis prepared by an independent testing laboratory prior to distributing refined hemp or a hemp extract product.
- (b) The certificate of analysis required under subsection (a) of this section shall state that the:
  - (1) refined hemp or hemp extract product is a product of a batch tested by the independent testing laboratory;
  - (2) batch tested contains an acceptable hemp THC level after testing a random sample of the batch; and
  - (3) batch does not contain contaminants unsafe for human consumption.
- (c) The Commission may conduct an analysis of a sample of refined hemp or a hemp extract product and the associated label to ensure the product:
  - subtitle;
  - (1) meets the label requirements established under § 14–303.2 of this subtitle;
  - (2) contains an acceptable THC level;
  - (3) has not been tampered with or misbranded; and
  - (4) meets all other requirements established under this subtitle.

## **ADD LABELING REQUIREMENTS**

- (a) The Commission shall establish minimum packaging and labeling requirements for refined hemp and hemp extract products.

**(b) The packaging required under subsection (a) of this section shall:**

- (1) be clear, legible, and printed in English;**
- (2) include a warning statement governing safe use and secure storage of the product that includes:**
  - (i) the intended serving size;**
  - (ii) a warning to not operate a motor vehicle while under the influence;**
  - (iii) a warning to not use the product while nursing or pregnancy warning;**
  - (iv) an advisory to keep out of reach of children and pets; and**
  - (v) a warning that the use of product make cause a positive THC result on a toxicology screening;**
- (3) include a primary label that:**
  - (i) contains the generic or common name of the product**
  - (ii) specifies whether the product contains CBD or THC or both; and**
  - (iii) the net weight or volume of the contents of the product in United States customary units and metric units in accordance with § 11–301 of this Article;**
- (4) include an information label that:**
  - (i) contains the name and contact information of the manufacturer or distributor;**
  - (ii) contains the date the product was manufactured or packaged;**
  - (iii) the batch or lot number for the product;**
  - (iv) instructs the consumer on how to use and prepare the product;**

**(v) lists THC, other cannabinoid ingredients or additives, and non-cannabinoid ingredients in the product in descending order by weight or volume;**

**(vi) lists any potential allergens;**

**(vii) contains an expiration date and refrigeration instructions; and**

**(viii) lists the sodium, sugar, carbohydrate, and fat content per serving, if applicable; and**

**(5) a certificate of analysis displaying the laboratory test results of the product.**

**(c) Refined hemp or a hemp extract product packaging may not:**

**(1) be labeled as a product grown in the State unless at least 51% of the hemp used in the product was grown in the State;**

**(2) be targeted at minors, including the use of cartoons, popular images used to advertise to children, or designs substantially resembling ones associated with any commercial product sold to minors;**

**(3) include false or misleading information, including unproven or unverifiable statements;**

**(4) include the word “organic” unless the product is certified as organic in accordance with the National Organic Program administered by the United States Department of Agriculture; or**

**(5) include disease or drug claims that are not approved by the United States Food and Drug Administration.**



# Maryland Department of Agriculture

Office of the Secretary

Wes Moore, Governor

Aruna Miller, Lt. Governor

Kevin Atticks, Acting Secretary

Steven A. Connelly, Deputy Secretary

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Industry

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## Maryland Department of Agriculture

### White Paper on MGA Hemp Bills

**Date: February 28, 2023**

**BILL NUMBER:** SENATE BILL 508, HOUSE BILL 1067, HOUSE BILL 1204

**SHORT TITLE:** USE OF HEMP AND HEMP PRODUCTS IN CONSUMABLE PRODUCTS/ HEMP FARMING PROGRAM - REFINED HEMP

**MDA POSITION:** INFORMATION

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The Maryland Department of Agriculture (MDA) has identified the following concerns with SB 508, HB 1067, and HB 1204 that would cause the MDA to be out of compliance with 2018 Farm Bill regulations and jeopardize USDA funding for the Hemp Farm Program. Each of these were outlined in detail in Letters of Information that were sent to the respective committees of E&T and EEE.

- Altering the definition of hemp to include a plant, or any part of a plant with Delta 9-Tetrahydrocannabinol (THC) concentration that does not exceed 1% on a dry weight basis.
- Allowing hemp products with a THC concentration greater than 1% to be included in consumable products for sale.
- Specifying that a person transporting hemp that exceeds a certain concentration of delta-9-tetrahydrocannabinol is not in violation of the Hemp Farming Program.

#### Recommendations from MDA:

- Amend HB 1204 to establish the creation of a farm based, craft cannabis grower's license to coincide with the hemp growers license.
  - A limited number of these licenses could be issued, allowing existing hemp growers to have an alternative to remediation when the concentration of the product exceeds .3% - 1%. The General Assembly can adjust those percentages if so desired.
  - Propose a limit on how much can be grown and sold on the farm.
- Expand the number of licenses issued to cannabis growers to allow existing hemp farmers the option to grow cannabis when concentration levels exceed .3%
- Members of the General Assembly would benefit from advocating for changes of the definitions of hemp and cannabis, lifting restrictions that require remediation, and the

transportation and sale of consumables to the Maryland Congressional Delegation.

- MDA will communicate the need for changes to the above regulations to the Maryland Congressional Delegation.
- MDA will confer with other states that have legislation similar to the proposed legislation and make further recommendations.

If you have additional questions, please contact Rachel Jones, MDA Director of Government Relations at [Rachel.Jones2@maryland.gov](mailto:Rachel.Jones2@maryland.gov) or (667) 408-0134.

**Nicholas Patrick\_SB0516\_FWA (1).pdf**

Uploaded by: Nicholas Patrick

Position: FWA



Written Testimony for Nicholas Patrick  
Co-Founder of The Maryland Healthy Alternatives Association

3/9/2023

Senate Finance Committee  
Senator Melony Griffith, Chair  
Senator Katherine Klausmeier, Vice Chair  
SB0516 FWA

Dear Chair Griffith, Vice Chair Klausmeier, and Members of the Committee,

My name is Nicholas Patrick and I am a Co-Founder of the Maryland Healthy Alternatives Association which works to protect the public's access to safe alternatives to prescription medications and advocates for the hemp industry in Maryland. I am also a minority business owner of Embrace CBD Wellness Centers which has 3 retail locations in Anne Arundel and Howard County Maryland.

I write to you today as what many would define as a "dreamer", I was brought to this country as a baby, and for the majority of my life, I lived in the shadows as an undocumented immigrant. I couldn't legally work, attend college, or even drive a car for 25 years until I was granted a green card at 26 years old. I know what it's like to feel marginalized and forgotten but I always dreamed of owning my own business but I'm more than just a dreamer, I'm a doer. I worked extremely hard to build my business which supports my wife, my son, and my mother who recently lost her husband to covid. I cannot sit idly by while it is destroyed because of a lack of regulation and the greed driven overreach from the cannabis establishment. That is why we started the MHAA to protect our industry from such a threat and to work with the legislature to address the lack of a regulatory landscape by working to craft common sense regulations to protect public safety and the hemp industry participants.

I have deep concerns about the proposed language in the Cannabis Reform Act, SB0516, that aims to lower the acceptable Delta-9-Tetrahydrocannabinol concentration below the federal threshold of 0.3% on a dry weight basis (§ 36-101 (C)(1); Page 18 line 19), and to ban "cannabinoid products not derived from naturally occurring biologically active chemical constituents" (§ 36-1103(2) (B); Page 70, lines 8-10), as well as the efforts to place a cap on

THC at 0.5mg per serving and 2.5mg per package for those without a recreational cannabis license. ( § 36-1103 (A)(1); Page 69, lines 23-27).

The Maryland hemp industry is a major industry in Maryland that contributes large amounts of tax dollars to the state from our product sales that total over \$300,000,000. We have also attached an economic impact report as part of our written testimony that further outlines the sheer size of our industry and the potential loss of revenue to the state that this legislation would cause without the proposed amendments.

The low barrier to entry into the hemp industry attracted many different types of entrepreneurs from all backgrounds, races, and genders creating a true climate of social equity in this “sister industry” to cannabis. Through our cursory research we were able to determine that 30% of all hemp specialty stores in the state identify as Black Owned and 25% of all hemp production licenses were issued to women. This is one of the most diverse communities of business owners that stands to be eradicated by this proposed legislation due to the wholesale ban on Delta 8 and the proposed THC caps. Why would we be seeking to criminalize non-intoxicating CBD products and ban hemp derived products with a psychotropic potency half that of the cannabis we are legalizing in the same bill? Why destroy social equity in an already existing industry with low barriers to entry where the diversity took shape naturally while trying to create it in another industry with much higher barriers to entry? This seems wildly unnecessary and will only hurt the small business community in our state and further discourage minority participants from owning their own businesses. If people fail in business due to bad business practices, that is something that can happen to anyone, but if people have their businesses robbed from them by overregulation or misguided policy, that can lead to utter discouragement and cause businesses to simply leave the “Free State” of Maryland.

The devastation to the small and minority owned business in the Maryland hemp industry that lowering the acceptable THC concentration in hemp products will cause will be tragic. It would cause hundreds of businesses to close and cause countless people to lose their jobs. This language as written would immediately render nearly all Full Spectrum CBD products illegal as all of them contain more than 2.5mg per package as evidenced by the certificates of analysis attached to this testimony. These COAs are representative of nearly ALL Full Spectrum CBD products that can currently be purchased in CBD specialty stores like ours as well as pharmacies, grocery stores including Whole Foods, and many hundreds of retail establishments throughout the state. This arbitrary number of 2.5mg does nothing but destroy current hemp businesses in our state and does not serve in any way to protect public safety or achieve any relevant end. It simply allows for the cannabis establishment to encroach on the rights of legal hemp businesses to further consolidate their industry as well as circumnavigate clearly written federal law. THC limits like these ought to be based in science, however this language has no scientific basis whatsoever but it only mirrors the talking points from the cannabis establishment that we in the hemp industry have heard for years which led to the formation of the MHAA.



We in the hemp industry have always been protected by federal law but now it seems that the State of Maryland wants to criminalize a long standing, federally legal industry while legalizing a federally illegal industry. Many businesses in our state have been growing hemp for CBD, processing hemp for CBD, manufacturing CBD products, and selling CBD products at retail for years now and they are all in danger of losing a key element of their businesses over arbitrary THC caps that seem to serve no relevant purpose. The federal standard for THC limits for hemp products has always been 0.3% Delta 9 THC on a dry weight basis. **We urge the legislature to amend ( § 36-1103 (A)(1); Page 69, lines 23-27) to reflect the federal standard of 0.3% on a dry weight basis** and not to change the definition of hemp in Maryland to directly or indirectly serve the greed of the cannabis establishment. Doing so would limit access to underserved communities, government employees, veterans, and everyone who relies on these products to improve the quality of their daily lives and force them to conduct business inside of a marijuana establishment that many of them likely never planned on entering. This would just simply be bad policy. Why would we criminalize Full Spectrum CBD products being sold even in places like Whole Foods, spas, and acupuncturists offices while empowering the high potency THC products that will be available in Adult Use Cannabis dispensaries? That doesn't make any sense, and so I'm sure this was not the intent of the legislature. We urge the committee to make the amendments outlined in our testimony and protect the small and minority owned businesses in Maryland.

Next I will address the further destruction of the hemp industry that would serve as the "nail in the coffin" for small and minority owned hemp businesses which is outlined in ( § 36-1103(2) (B); Page 70, lines 8-10) which refers to cannabinoid products not derived from naturally occurring biologically active chemical constituents. This language is very confusing and it's difficult to determine the intent behind it. However in our many meetings with legislators, we were told that this language takes aim at federally lawful refined hemp cannabinoid products like Delta 8, Delta 10, and HHC. This has been one of the main goals of the cannabis establishment for years now. Lies and misinformation have spread like wildfire from lobbyists for large cannabis companies that have portrayed these products to be some sort of boogeyman which they most certainly are not. We have been the victims of intentional misinformation for far too long and it is time for it to stop. We even heard that a lobbyist in Maryland had said that delta 8 products contain harmful fillers like lye. This is totally untrue, unfounded, and frankly it's ridiculous.

We understand that like any industry there are bad actors in hemp and we want to weed them out and are willing to work with the state to create a regulatory framework for these products. We have also attached to our testimony a full in-depth report on Delta 8 for the committee to review which further outlines the TRUTH about these products. Before last legislative session these products were not age-gated and were being sold irresponsibly in places like gas stations and convenience stores where minors had unfettered access to them and we were excited to

work with the legislature to age gate these products while we worked on a common sense regulatory framework.

In 2022 Senator Feldman and Delegate Pena-Melnyk created a study group led by the MMCC to conduct a comprehensive study on these products that we were, by law, meant to be an active part of. However, as expected, this study from its inception was highly weighted against the interests of the hemp industry with only 27% of participants being from the hemp industry and the other 73% having a role in the cannabis industry. Throughout the study the 2 members from our association dispelled misinformation, cited facts corroborated by the experts selected to contribute to the study, and worked with the MMCC and the other interested parties (in the limited capacity that we could) to come up with recommendations on how to properly regulate these products. Much to our surprise we agreed with most of the recommendations and were excited to finally have the regulation that our industry so desperately needed to bring legitimacy to these products and promote public safety while protecting the hemp industry's ability to participate in the free market. However now it seems that without ANY consultation from the industry participants who created these products we are now facing a total ban on the products that make up more than 70% of all hemp related sales in the state.

We understand the concerns about public safety especially when it comes to children getting ahold of Delta 8 products. That is why our plan for regulation that we have worked so hard to create is so crucial to this conversation. No, Delta 8 does not contain lye, no it does not contain harmful chemicals, no it does not cause children to die, if the product is tested by a DEA registered, ISO Certified lab and the report shows that it's clean, then it's safe for use for adults 21 and older. These products have a 40-50% less potent psychotropic effect than Delta 9 products and are purchased specifically for that reason. I urge you to please read our full report on Delta 8 and other non-Delta 9 THC isomers included in testimony from the MHAA and the Maryland Hemp Coalition.

Most people who purchase these Refined Hemp Cannabinoid products are buying them specifically because they have tremendous therapeutic benefits and do not create the long lasting intense "high" produced by adult-use cannabis. Our industry serves a different customer. In addition, the prices of these products are much less expensive than what is currently offered by the medical marijuana dispensaries and allow those who are economically disadvantaged to be able to purchase products that improve their daily lives at a fraction of the cost. We are a resource to many underserved communities.

The idea that a public health emergency will happen if Delta 8 is allowed to remain on the market is simply not true. As Maryland opens up its Adult Use Market the potential for a child to get hold of a bag of Delta 9 edibles from a dispensary will drastically increase and we as a state assume the same risk as if it were a delta 8 product except that delta 8 is a less potent, naturally occurring cannabinoid than delta 9. The solution is simple and is already thoroughly outlined in HB1204. Regulate all refined hemp cannabinoids through the ATCC. Enforce testing

requirements, labeling and packaging requirements, and create a simple and easy to access craft cannabis license for existing hemp businesses that allows for the sale of Refined Hemp Cannabinoid Products and other hemp products that do not exceed the 0.3% threshold so that the businesses offering these products can be tracked by the state for purposes of enforcement and establish penalties for breaking the rules.

Please consider the many people from every conceivable background who have built very successful businesses around these products and do not destroy their livelihoods without giving them a chance at finally being able to operate in a well-regulated hemp industry. We have the resources to do it, we have the plan in place, all we need to do is execute it. We are afraid that our very existence is threatened because of a lack of regulation that has allowed bad actors to sell untested substandard products. We do not support these businesses. We do not support the underage sale of these products. We do not support selling products that have not been tested by ISO certified, DEA registered 3rd party laboratories. We do not support any packaging that is not child resistant or is attractive to children and that is why we are begging the committee for regulation and oversight so that we can stay in business as an industry and operate responsibly. The answer is not to punish the good guys who tried their best to do the right things in an unregulated market. The answer is regulation.

A proposal attached below and titled "MDA White Paper on MGA Hemp Bills" was drafted by the MDA to establish the creation of a farm based, craft cannabis grower's license to coincide with the hemp growers license. This proposal also mentions expanding the number of licenses issued to cannabis growers to allow existing hemp farmers the option to grow cannabis when concentration levels exceed 0.3%. As with any industry a supply chain is critical to its success. The MD hemp industry is not just the farmers who grow the hemp, but also the processors, manufacturers and specialty retailers selling MD made products. If one link in the chain is removed or forgotten the whole chain becomes weaker. The proposal from the MDA for the "craft" license option does not mention the processors, manufacturers, and specialty retailers. We are asking this body to create a "Craft" licensing structure for existing hemp businesses including hemp specialty retailers with a minimum of 90% of their product sales coming from hemp products under the regulation and oversight of the newly established ATCC that would allow for these products to be regulated and sold in a manner that protects public safety and promotes the small businesses in the Maryland Hemp Industry.

We are not opposed to regulation. In fact, we welcome it. Not many industries ask the state for more regulation, but the hemp industry is begging for it. We know we need it but we cannot accept the destruction of our business, which is protected by federal law which will open the state up to unnecessary litigation. The exclusion of all tetrahydrocannabinols in hemp from the CSA, by the actions of the 2018 Farm Bill, should eliminate any question of the legality surrounding these hemp-derived cannabinoids and products (delta-8, delta-10, and other THC isomers.) Unfortunately, the adjacent medical and adult-use cannabis industry, with

conflicting economic interests, continues to spread misinformation about these products as they always have.

There is nothing within the 2018 Farm Bill that prohibits deriving Delta 8 or other THC isomers from hemp and enhancing the products with the compounds. Supporting this is a panel of the U.S. Court of Appeals for the Ninth Circuit who stated in March 2022 in a 3-0 ruling, "this Court will not substitute its own policy judgment for that of Congress." We believe the subsequent regulatory actions should reflect the same. There is no need to have this wind up in a legal battle when we can work together to protect the public and the industry.

As the MHAA it is our duty to protect the public's access to these products. These products act as a middle ground between CBD and Cannabis and our customers purchase it specifically because it's less potent. The consumers in this state deserve to have their access to less intoxicating products protected. Michelob Ultra exists in the same industry as Jack Daniels. Why are we discussing criminalizing the beer and wine side of the cannabis industry and pushing so hard for the Jack Daniels side of it? Hemp will not be rendered obsolete during the rollout of adult-use cannabis just as beer and wine is still very profitable even though Jack Daniels is sold in the same establishments. Hemp is here to stay, and for good reason. The cannabis industry has become obsessed with constantly increasing the potency of their products and this legislation leaves no room for those consumers who cannot handle the intense "high" produced by these products. That is who the hemp industry currently serves. We can have Beer and Wine as well as Jack Daniels and Bacardi 151. There is a real need for these products and the consumers in Maryland want them as evidenced by the letters written by consumers attached to this testimony.

My wife and I started Embrace CBD Wellness Centers with our life savings of only \$8000 and today after 4 years of work our business has grown to three locations and over \$1.3 million in annual sales. We are proud to offer science backed educational resources and quality controlled 3rd party lab tested products including Delta 8. We are the good guys, companies like us do exist and they are represented by our membership. You do not need to place us all out of business and destroy our livelihoods and our families. We instead encourage a collaborative effort between the state and the industry to properly regulate these products which would be the best solution that serves everyone well.

Additionally, I share your concerns about the inevitable supply chain issues and the potential boom of the illicit market in the rollout of this Adult Use industry which leads to arrests and violence particularly in underserved communities. As someone who grew up in that environment as an undocumented immigrant, brought to the US as a baby, and had my life basically destroyed by cannabis charges as a juvenile which had me labeled as a criminal for most of my young life and contributed to my inability to acquire a green card until I was 26, I personally identify with that concern. However if these sensible and reasonable regulations are not adopted, we may see even more illicit sales as the demand for these refined hemp cannabinoid

products will not disappear. Therefore, as members of the hemp industry, we stand ready to support the state in their desire to curb illicit sales by supporting the regulation of these products under the ATCC and a collaborative effort to work with the hemp industry to address major issues this incoming industry may have. We are ready and willing to help.

We know that some members of this body want to see these types of products regulated and sold as Adult Use cannabis products only through licensed adult use cannabis facilities. However if that is how the state chooses to address this issue, then it would only be fair if hemp businesses were given a seat at the table in the same way the medical cannabis companies are or by creating a separate license structure like the one outlined by the MDA for the hemp industry producers, manufacturers, and specialty retailers. Our small and minority owned businesses are ready and willing to participate in order to stay in business. Many of our members produce and sell these products exclusively in Maryland and we simply do not want to be edged out of the industry that we built and watch the products that we created be given over to the cannabis establishment without a guarantee of participation in that industry. We can pay into the cannabis fund and convert our businesses into licensed cannabis facilities in order to be able to remain in business and not be destroyed. We created these products, and we invested heavily in the production of them. If these products will be regulated and sold as cannabis products then allowing the Maryland based producers and sellers of these products to convert to Adult Use could help push the industry forward and serve to make the industry more equitable and favorable to small Maryland businesses.

If the state chooses to only allow these products to be sold through the Adult Use market and is willing to allow for hemp businesses that exclusively produce and sell these products in Maryland to convert to cannabis businesses, we can be a resource to the state in many ways. Our farmers and processors can assist with supply issues and our CBD/Hemp specialty shops can help to curb the illicit market by offering more points of retail sales. We are well versed in this industry and have the capital required to become operational quickly without the need for any state funding. We only ask that the state view us as potential partners in collaboration as it does the existing cannabis industry instead of a problematic industry needing to be destroyed. If the state of Maryland would regulate their hemp industry under the ATCC and regulate the refined hemp cannabinoid products properly through that agency, we could set a standard that other states could model that truly prioritized social and economic equity as well as safety and security.

We are confident that the regulation of refined hemp cannabinoids under the ATCC and the creation of a "craft" licensing structure will provide a framework for collaboration between the state and the hemp industry and help to create a sustainable and responsible industry that benefits all Maryland residents. We believe that the ATCC is the best body to regulate the industry, and we stand ready to support the state in their rollout of adult use cannabis by working with the ATCC to regulate these products.

We do not have to crush small businesses to achieve the goals of this \$2 billion marijuana industry. We can have both a successful cannabis industry and protect our small hemp businesses, and this is only possible through common sense regulation that protects both the public safety and the businesses in the hemp industry and there is already a plan in place to do it. Let's collaborate on ways to achieve the most equitable cannabis industry possible which encompasses all parts of the plant.

I urge you to support the safe and regulated sale of hemp products in Maryland, and to stand with us in protecting small businesses and the American Dream. The hemp industry in Maryland requests that **§ 36-1103. 2(B) "A PERSON MAY NOT SELL OR DISTRIBUTE A CANNABINOID PRODUCT THAT IS NOT DERIVED FROM NATURALLY OCCURRING BIOLOGICALLY ACTIVE CHEMICAL CONSTITUENTS"** be struck and regulatory language from HB1204 be amended into the appropriate section of this legislation and a "craft" licensing structure be created for existing hemp businesses.

Thank you for your consideration,

Nicholas Patrick  
Maryland Healthy Alternatives Association

#### **Proposed Amendments to SB516**

**Page 69, lines 24: (A) (1) [0.5 MILLIGRAMS OF TETRAHYDROCANNABINOL PER SERVING OR 2.5 MILLIGRAMS OF TETRAHYDROCANNABINOL] 0.3% DELTA-9-TETRAHYDROCANNABINOL ON A DRY WEIGHT BASIS UNLESS THE PERSON IS LICENSED**

**Page 70, Line 8, STRIKE : [(B) A PERSON MAY NOT SELL OR DISTRIBUTE A CANNABINOID PRODUCT THAT IS NOT DERIVED FROM NATURALLY OCCURRING BIOLOGICALLY ACTIVE CHEMICAL CONSTITUENTS. ]**

**Below are letters from consumers of these products. I selected a few out of the dozens we received when our customers heard about this legislation.**

Dear Committee Members,

My name is Jennifer Fox, I live in Glen Burnie, MD and I am writing to you as a consumer of CBD and hemp-derived THC products.

As someone who has a federal security clearance for employment, I am only able to utilize CBD products to treat my panic and anxiety, as THC is still federally illegal. Until and unless the federal government gets on board with the legalization of marijuana, you risk alienating what I suspect is a large consumer base of CBD products, by restricting access to these products to those who rely on them, and cannot or are uncomfortable with the idea of having to work with recreational dispensaries. You're talking about people who work to support this country, who are trying to better their health and balance that with the fear of losing their jobs. Asking them to visit a dispensary rather than a local shop like Embrace CBD is like asking them to choose their jobs over their health, which should go without saying is an unfair choice.

Many people, like myself, rely on these products for their daily health and wellness needs, and we should not be forced to go to a recreational dispensary in order to access them. The current buying experience is simple and straightforward, and I appreciate the convenience of being able to purchase these products from a trusted source.

After struggling for years to treat my anxiety with prescription medication that had side effects I was not willing to compromise on, the great people at Embrace CBD have quite literally transformed my life. After much hesitation, because of the stigma surrounding the use of CBD and hemp-derived THC products as a federal government employee, and because I had reached a breaking point in dealing with my panic and anxiety, I finally sought the assistance of the folks at Embrace CBD. Not only are they professional and easy to work with as a small business, but they are knowledgeable and very much respect my reservations in trying CBD products because of my employment. Individualized treatment I somehow doubt I would receive at a recreational dispensary, as I would not be the general audience they cater to. They were able to make recommendations based on my needs and restrictions, knowing I am regularly drug tested for work. When I say their wisdom and products transformed my life, I am not exaggerating. After just the first week using the recommended CBD products, I was able to sleep through the night consistently for the first time in years. I am able to go out in public places or with large crowds, drive, and engage in the high-stress of my work without constant panic and fear. I am a better person, better wife, mother, and daughter with the use of these CBD products in my everyday life.

I strongly urge you to protect our access to these products and the existing businesses that sell them. By doing so, you will be ensuring that consumers like myself continue to have access to the products that we need and rely on for our health and well-being.

Thank you for your time and consideration.

Sincerely,

Jennifer Fox

Dear Committee Members:

My name is Leslie Friedman and I live in Glen Burnie, Maryland. I am writing to you today as a consumer of CBD and Hemp- derived THC products that are less potent than Marijuana. I strongly urge you to protect my access to these products without having to purchase them from recreational dispensaries.

I am a true believer that it should be a person's right to choose what works for them hence, the reason I voted to legalize Marijuana in the State of MD. My husband had a Medical Marijuana card in the State of MD to be able to purchase, and consume THC products for pain relief. While the product might have worked he did not like the paranoid feelings that were associated with THC products.

Therefore, he tried CBD and hemp-derived THC products and found they provided him with pain relief he was seeking without the paranoid reactions.

I choose to use these products for their many health and wellness benefits, and I appreciate the ease and affordability of purchasing them from existing businesses that already sell quality, lab-tested products.

By closing these businesses you will be forcing the consumer of CBD and hemp-derived products to search for companies located outside of MD. In addition to losing that revenue you are closing one company to open another, it doesn't make sense.

I strongly urge you to protect my access to the products I need and rely on for my personal health and well-being.

Thank you for your time and consideration.

Dear Committee Members,

My name is Mindy Rector. I live in Chesapeake Beach and I am writing to you as a consumer of CBD and hemp-derived THC products that are less potent than marijuana. I strongly urge you to protect my access to these products without having to purchase them from recreational dispensaries.



I choose to use these products for their many health and wellness benefits, and I appreciate the ease and affordability of purchasing them from existing businesses that already sell quality, lab-tested products. The prices are significantly lower than those found at cannabis dispensaries, and the potency is also lower, making these products more accessible and appealing to a wider range of consumers like myself.

Many people, like myself, rely on these products for their daily health and wellness needs, and we should not be forced to go to a recreational dispensary in order to access them. The current buying experience is simple and straightforward, and I appreciate the convenience of being able to purchase these products from a trusted source.

I want to be able to purchase CBD/Hemp products from Embrace CBD Wellness Centers. I trust them and their products. I have been purchasing products from them for over a year to help me with my anxiety. I drive an hour each way because I don't want to go anywhere else. I strongly urge you to protect our access to these products and the existing businesses that sell them. By doing so, you will be ensuring that consumers like myself continue to have access to the products that we need and rely on for our health and well-being.

Thank you for your time and consideration.

Sincerely,  
Mindy Rector

Dear Committee Members,

My name is Joyce Hamcky, I live in Glen Burnie and I am writing to you as a consumer of CBD and hemp-derived THC products.

Last year I needed a total hip replacement, I was in constant excruciating pain. I needed to lose 40 lbs. before the doctors would do the surgery. Someone told me about the CBD oil to help relieve some of the excruciating pain. I purchased and started taking the CBD oil, every day, multiple times a day. It didn't take away all the pain, but it did definitely help with the excruciating part of the pain. I was able to cope and focus on losing the 40 lbs. I needed to lose. It also helped me to be able to sleep at night and I believe it also helped curb my appetite, so I was able to lose the 40 lbs. I needed to lose. I had the total hip replacement on November 2022 and am still using the CBD oil to help me to be able to exercise and be able to do my physical therapy to get my body back to where it was over a year ago. One of the best reasons for taking the CBD, I have not had to rely on prescription pain drugs to get me thru all the pain, prior to the surgery and currently with all the rehab at physical therapy. I don't know how successful I would have been with functioning with all the pain I was in, being able to sleep, losing the weight and

getting thru the entire process. Also, would not have been able to afford using the CBD oil if I had to purchase it at the recreational dispensaries which are more expensive.

The people at Embrace CBD Wellness Centers were very helpful with explaining what my options were, what to try, how much to take, the specials they have every day which helped me to be able to afford to use their products.

Thank you for your time and consideration.

Sincerely,

Joyce Hamcky

Dear Committee Members,

I am writing to you as a concerned friend of a resident of Frederick, who is a consumer of CBD and hemp-derived THC products.. I have been informed of the issues they are facing and strongly urge you to protect their access to these products without having to purchase them from recreational dispensaries.

As an outsider, I understand that this may not directly affect me. However, I strongly believe that every consumer should have access to products that can help them maintain their health and well-being. I have witnessed the positive effects that these products have had on my friend's life, and I believe it is important to protect their access to them.

My friend has expressed their appreciation for the ease and affordability of purchasing these products from existing businesses that already sell quality, lab-tested products. They have informed me that the prices are significantly lower than those found at cannabis dispensaries, and the potency is also lower, making these products more accessible and appealing to a wider range of consumers.

I understand that many people, like my friend, rely on these products for their daily health and wellness needs. It is crucial that they should not be forced to go to a recreational dispensary in order to access them. The current buying experience is simple and straightforward, and I believe it is essential to maintain this convenience for consumers like my friend.

I strongly urge you to protect their access to these products and the existing businesses that sell them. By doing so, you will be ensuring that consumers continue to have access to the products that they need and rely on for their health and well-being.

Thank you for your time and consideration.

Sincerely, Noah Langdon.

Dear Committee Members,

My name is Casey. I live in Pasadena and I am writing to you as a consumer of CBD and hemp-derived THC products that are less potent than marijuana. I strongly urge you to protect my access to these products without having to purchase them from recreational dispensaries.

I suffer from osteoarthritis throughout my body and choose to use these products as an alternative to prescription pain relief. I appreciate the ease and affordability of purchasing them from existing businesses that I trust and with whom I have a rapport. I know my wellness center already sells quality, lab-tested products. The prices are significantly lower than those found at cannabis dispensaries and, more importantly to me, the potency is lower.

I strongly urge you to protect our access to these products and the existing businesses that sell them. By doing so, you will be ensuring that consumers like myself continue to have access to the products that we need and rely on for our health and well-being.

Thank you for your time and consideration.

Sincerely,  
Casey Ventola

Dear Committee Members,

My name is Renae Reeves. I live in Glen Burnie, MD and I am writing to you as a consumer of CBD and hemp-derived THC products.

I have my state approved medical cannabis card but after many failed attempts to find a more stable dosage for me once realizing the dispensaries THC potency was just too strong, I decided to switch to CBD and hemp-derived products and have not been disappointed. Now I am able to comfortably purchase my products knowing I'm not going to have to play pharmacist or guinea pig.

I have also purchased CBD for my dog who has shown significant improvement with his inflammation of his joints but more importantly his seizure reduction. One less thing in life I have to worry about.

I strongly urge you to protect our access to these products and the existing businesses that sell them. By doing so, you will be ensuring that consumers like myself continue to have access to the products that we need and rely on for our health and well-being.

Thank you for your time and consideration.

Sincerely,

Rena D. Reeves

# **Non-Delta-9 THC Report.pdf**

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Position: FWA



## **COLLABORATIVE WHITE PAPER**

### **HEMP INDUSTRY STAKEHOLDERS**

# **NON-DELTA 9 THC REGULATION REPORT**

By Levi Sellers

#### **CONTRIBUTORS:**

Nicholas Patrick

Daniel Simmonds

Elly Cowan

# Acknowledgements

We would like to thank all of those that made this report possible.

First, appreciation should be given to Honorable Representative Pena-Melnyk, Honorable Senator Feldman, as well as the members of their committees that amended to a study concerning proposed 2022 legislation, which could have negatively impacted the Maryland Hemp Industry including many small and minority-owned businesses.

This white paper draws from several sources that we wish to explicitly acknowledge. The participating authors of this document are active hemp-industry stakeholders or currently working with the hemp industry and are well informed on the matters discussed in this document.

Levi Sellers- President of the Maryland Hemp Coalition, Maryland Agricultural Commission Hemp Representative, Manager of South Mountain MicroFARM - a licensed hemp producer

Nicholas Patrick - Vice President of the Maryland Healthy Alternatives Association and the owner of Embrace CBD Wellness Centers

Daniel Simmonds- President of the Maryland Healthy Alternatives Associations and co-owner of Georgetown Hemp

Elly Cowan- Principal at Compass Government Relations Partners

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# EXECUTIVE SUMMARY

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It has been the current trend of Big Cannabis to propose, both publicly and privately to key decision makers, that the Delta 8 marketplace be relegated to their purview, and that the very long well established Hemp industry be excluded, or eradicated.

To the contrary this white paper suggests that a cooperative venture between the Hemp and Cannabis market entities be promoted. Such an approach would best serve the public and industry stakeholders.

- 1. History provides adequate evidence that the Hemp industry has undergone significant damage by the imposition of misguided legislation by rule makers who were subject to powerful special interest groups.**
- 2. We are highly concerned that the dismantling of the Hemp infrastructure in Maryland will have a further negatively disproportionate effect on the minority stakeholders.**
- 3. Signs of bias throughout the study was partial to a particularly desired outcome.**
- 4. The Maryland hemp industry and hemp industry stakeholders agree that meaningful legislation and appropriate regulations are needed to ensure consumer safety.**

**“In order to achieve the full social, environmental and economic potentials of hemp, we must protect and promote both its therapeutic potentials and industrial potentials.”**

**— Levi Sellers —  
President,  
Maryland Hemp Coalition**

# INTRODUCTION

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Written in collaboration by both the Maryland Hemp Coalition and Maryland Healthy Alternatives Association, on behalf of the Maryland Hemp Industry, this white paper aims to clearly provide our input with regard to the report mandated by Chapter 511/512 of the acts of 2022. These acts tasked the Natalie M. LaPrade Medical Cannabis Commission (MMCC), in consultation with the State Department of Agriculture and representatives of the Maryland Hemp Coalition and the Maryland Healthy Alternatives Association to study and make recommendations on the classification and regulation of tetrahydrocannabinols, other than delta-9-tetrahydrocannabinol, that are artificially, synthetically, or naturally derived, and manufactured products containing delta-8 and delta-10-tetrahydrocannabinol.

Our purpose in this report is to:

- Provide clarity to many misconceptions and misinformation surrounding the topic of Delta-8, Delta-10 and other Tetrahydrocannabinol (THC) isomers.
- Express concerns with respect to the process employed by the study group lead by the MMCC.
- Recommend meaningful legislation and appropriate regulations that are needed to ensure consumer safety with regard to these hemp-derived cannabinoids and products.
- Promote concepts that the Maryland Legislature could utilize to help avert significant unintended consequences from well-intended regulations that could easily terminate the Maryland Hemp growers as well as those in adjacent states.

**The Hemp Industry is taking steps to ensure consumer safety with regard to hemp-derived products and in most cases, going above and beyond the current laws and regulations.**

# THE HISTORY OF HEMP AND HEMP-DERIVED PRODUCTS

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Historically, Hemp has been a significant product of the early Americas.

“Until 1883, 90% of all paper in the world was made with hemp fiber. This included paper money, news print, maps, stocks, bonds and books. The first draft of the Declaration of Independence was written on Dutch hemp paper and the second draft was completed on July 2, 1776.”<sup>1</sup>

Before the disruptive regulation of 1937, Hemp’s traditional medical uses have been known for over 8,000 years. Hemp products were pervasive in North America in the 17th century, and derivatives commonly used in medicinal preparations labeled as “Hemp” until regulation effectively banned production.

The Marihuana Tax Act of 1937, Pub.L. 75–238, 50 Stat. 551, enacted August 2, 1937, was a United States Act that taxed cannabis, and promulgated restrictions on its growth, possession and use. **History shows that the legislation was proposed and rapidly pushed through Congress by a few highly influential business leaders who represented the powerful special interest groups in competing industries.** Even the American Medical Association attempted to reverse the legislation once they realized that the legislature purposely used the name ‘Marihuana’ in place of Hemp to hide the actual reason for removing Hemp from the marketplace.<sup>2</sup>

The prohibition act lasted 81 years and disrupted the growth by many farmers who depended on this cash crop. Historical evidence of the importance of Hemp is shown by the action in 1943 when a Federal program (Hemp for Victory) encouraged the growth of over one million acres of Hemp for the war effort. The Controlled Substances Act of 1970, repealed the 1937 law, but operationally banned the production of industrial hemp because the DEA refused to issue tax stamps.

**History provides adequate evidence that the Hemp industry has undergone significant damage by the imposition of misguided legislation by rule makers who were subject to powerful special interest groups.**<sup>3</sup>

It wasn't until February 7, 2014, when then President Obama signed the Farm Bill of 2013 into law. Section 7606 of the act, Legitimacy of Industrial Hemp Research, defined industrial hemp as distinct from marijuana and authorized institutions of higher education or state department's of agriculture in states that legalized hemp cultivation to regulate and conduct research and pilot programs. The U.S. House passed the hemp amendment to the Farm Bill in order to allow pilot programs and research to begin on industrial hemp and determine whether hemp farming would be beneficial for American farmers and businesses.

On December 20, 2018, then President Trump signed into law the Agricultural Improvement Act of 2018. Most people refer to the legislation as the 2018 Farm Bill and the enacted bill is P.L. 115-334. This legislation allows USDA to carry out its vital mission of serving rural America, creating jobs, and providing a safety net for Americans in need.

**Hemp farming exploded after the 2018 Farm Bill passed** and was signed into law. Over the first year, licensed hemp acreage increased more than 445%, according to the advocacy and research group Vote Hemp. More than 510,000 acres of hemp were licensed in 2019, versus about 112,000 acres in 2018. **This "green rush" led to a national surplus of hemp biomass, used for the extraction of Cannabidiol (CBD), negatively impacting the market value.**

In a short period of time, from April 2019 to October 2019, the wholesale value of hemp CBD biomass decreased by 53% according to a report by Hemp Benchmarks. At its peak there were approximately 201 million pounds of excess hemp biomass in the U.S. marketplace and in excess of 1.6 million kilos of processed cannabinoids. <sup>4</sup>

**Amid the drastically diminished fortunes of the CBD sector, producers became innovative and turned to further refined or converted products, beyond the original CBD content.** These products included gummies, vapes and other derivative products containing minor cannabinoids such as CBG and CBN, as well as products containing other forms of THC beyond the traditional THC delta-9 such as delta-8, delta-9, delta-10 and further refined products, such as HHC.

By 2022, PanXchange estimated that at least **75% of all hemp extract is going into production of delta-8 products** and other hemp-derived cannabinoid products. Through

this innovation we are now seeing the market value of hemp CBD biomass begin to rebound providing much needed economic relief to the agricultural community.

**“Innovation is the ability to see change  
as an opportunity- not a threat.”  
— Steve Jobs —**

## **WHAT ARE HEMP-DERIVED CANNABINOIDS?**

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Most hemp-derived cannabinoids and products have a lower psychotropic potency when compared to delta-9 THC. **According to the CDC delta-8 THC is estimated to be about 50-75% as psychoactive as delta-9THC.**

Delta-8 THC is one of the hundreds of cannabinoids naturally found in hemp and cannabis. However, it appears in such small doses that processors can't efficiently extract it, at commercial scale, directly from the plant. Instead, they must convert other cannabinoids, like hemp-derived CBD, into Delta-8 THC using more efficient solvent-based synthesis methods called “isomerization”, which is the transformation of a molecule into a different isomer.

A common misconception of hemp-derived cannabinoids is that they are “synthetic”, due to the manufacturing processes performed in a laboratory. This argument was rejected by a three-judge panel of the Ninth Circuit stating, **“the source of the product — not the method of manufacture — is the dispositive factor for ascertaining whether a product is synthetic.”**

This isomerization process is similar to methods used to produce well-known and existing products in the free market. Like vitamin supplements which can be derived from natural

plant/animal sources or also more efficiently derived from a process of isomerization. For example, both Vitamin A and Vitamin C can either be derived from a natural source, fish liver oil or citrus fruits, or more efficiently isomerized from acetone or keto acid. These isomerized vitamins have regulations in place to ensure consumer safety, as we all can agree that hemp-derived products should as well.

## HEMP AND CANNABIS: WHAT'S THE DIFFERENCE?

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Hemp and Cannabis have a long history that is, by nature, intertwined and somewhat complex. The bottom line is that they are of the same plant species, known as *Cannabis Sativa L.*

In order to provide a standard to clarify the difference between Hemp and Cannabis the 115th US Congress enacted the legislation most commonly referred to as the 2018 Farm Bill. This legislation acted upon this in two ways:

1. Defined Hemp as:

“the plant *Cannabis sativa L.* and **any part of the plant**, including the seeds thereof **and all derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers, whether growing or not, with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent** on a dry weight basis” [7 U.S.C. 1639o(1)]

This definition establishes a delta-9 THC threshold to distinguish the difference between hemp and cannabis.

2. Amended the Control Substance Act (CSA) in two ways:

- A. CSA definition of “marihuana” to **exclude hemp** as defined; and

B. **All Tetrahydrocannabinols in hemp were removed** from the CSA’s definition of “tetrahydrocannabinols”

- ▶ “Tetrahydrocannabinols, except for tetrahydrocannabinols in hemp (as defined under section 297A of the Agricultural Marketing Act of 1946.

These actions exhibit a **clear intent by Congress to establish a difference between “hemp” and “marijuana” or cannabis**, while providing the American agricultural community, consisting of multi-generational family farms and small businesses, a new cash crop to incorporate into their toolbox of crop rotations.

A patch work of state laws and regulations allow for Cannabis, above the 0.3 percent delta-9 THC threshold, to be sold as “medical” or “adult-use/recreational” cannabis. Dominated by large corporate or multi-state operators (MSO), also known as “Big Cannabis” and **influenced by the entry of big capital from the Canadian public markets, the cannabis industry has become difficult for small local businesses to enter or maintain market share.**

The barriers to entry into the cannabis industry made it nearly impossible for traditional small business owners to be able to participate in it. As a result, many of these entrepreneurs with knowledge of this plant and strong passion to build a business in cannabis had no choice but to turn their attention toward the hemp industry.

## LEGAL OR LOOPHOLE?

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**The exclusion of all tetrahydrocannabinols in hemp from the CSA, by the actions of the 2018 Farm Bill, should eliminate any question of the legality surrounding the hemp-derived cannabinoids and products** (delta-8, delta-10, and other THC isomers) reviewed in this study. Unfortunately, the adjacent medical and adult-use cannabis industry, with conflicting economic interests, continues to spread a misconception that the hemp industry is marketing these products through a “loophole” in federal law.

**There is nothing within the 2018 Farm Bill that prohibits deriving Delta 8 or other THC isomers from hemp and enhancing the products with the compounds.** <sup>5</sup> Supporting this is a panel of the U.S. Court of Appeals for the Ninth Circuit who stated in March 2022 in a 3-0 ruling, “this Court will not substitute its own policy judgment for that of Congress.” <sup>6</sup> We believe the Maryland study group outcome and subsequent regulatory actions should reflect the same.

## MISINFORMATION AND MISCONCEPTIONS

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Lobbying efforts by well funded **Cannabis Industry MSO’s are spreading fear** through misinformation and misconceptions with regard to hemp-derived cannabinoid products. These are easily dispelled with logical thinking, reasonable regulation and facts.

### NOT NATURALLY OCCURRING...

Most hemp-derived cannabinoids are identified as naturally occurring, but are only present in the hemp plant in trace amounts. A process of isomerization is used to efficiently produce commercially viable quantities of these cannabinoids with potentially therapeutic values, according to existing research.

It is well known in both the hemp industry as well as the medical/adult-use cannabis industry that **not all cannabinoids, in the plant Cannabis sativa L., can be isolated or tested** for, using current technology and testing standards, to determine if said cannabinoids are naturally occurring or not.

### TOXIC SOLVENTS AND HEAVY METAL REMNANTS...

Typically, the isomerization process performed in laboratories to manufacture certain hemp-derived cannabinoids involves a bit of chemistry. **With chemistry the use of corrosive or toxic chemicals, as solvents/reagents and catalysts, is not foreign** and can be dangerous, if not performed by professionals. These chemicals are removed and the final derivative is purified.



To ensure that reagents and catalysts are removed from the final product, testing services by DEA certified and accredited third-party testing laboratories like KCA in Kentucky or ACS in Florida are employed. Full panel Certificates of Analysis (COA) are provided at the completion of testing, ensuring potency and purity.

## HEMP IS NOT INTOXICATING...

As reported by the consumers and documented research hemp-derived cannabinoids are not as intoxicating as the products available by the medical and adult-use cannabis industry. This is the reason why there is a growing demand for these products over those produced by the medical and adult-use cannabis industry.

**Look at hemp and delta-8 through the lens of other agricultural and value-added products on the market.** Wine is produced using a mechanical and chemical process to convert grapes, an agricultural crop without intoxicating effects, into a value-added product that can produce intoxicating effects. Hemp-derived products, like delta-8 THC, are produced using a mechanical and chemical process to convert hemp, an agricultural crop without intoxicating effects, into a value-added product that can produce intoxicating effects. The two do not appear that different in this context.

**There is nothing within the 2018 Farm Bill that prohibits potentially intoxicating cannabinoids like Delta 8 or other THC isomers from hemp and enhancing the products with the compounds.**<sup>5</sup> Supporting this again is a panel of the U.S. Court of Appeals for the Ninth Circuit who stated in March 2022 in a 3-0 ruling, “this Court will not substitute its own policy judgment for that of Congress.”<sup>6</sup> We believe the Maryland study group outcome and subsequent regulatory actions should reflect the same.

## IMPROPER LABELING...

We agree with and fully support and promote the need of qualitative laboratory analysis and adoption of standardized manufacturing processes. Although, without standardization of testing a hemp-derived product can test at a different potency from lab to lab. This concern is not unique to hemp-derived products. **Multiple**

**class action lawsuits have been filed, nationally, within the highly regulated medical and adult-use cannabis industries.** These lawsuits have made claims that state licensed cannabis producers are paying laboratories to falsely inflate cannabinoid concentrations, in order to sell their products at a higher value.

A critical public health component that must be implemented across the two separate industries is the standardization of testing and measurement processes for Cannabis and Hemp products that are currently absent.

**We strongly encourage state and Federal regulators to take a leadership position in developing and promulgation of laboratory standards and practices.**

## BIAS IN THE STUDY

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The study group, established by SB0788/HB1078 during the 2022 legislative session in response to the outcry by Maryland Hemp Industry stakeholders and supporters, exhibited **signs of bias since its start and throughout its completion.** An agenda was created without hemp industry input, provided to hemp industry representation only days prior to the study's first day, and a survey/questionnaire was provided to study participants with a predetermined result. Also, the limited multiple choice options did not provide options that accurately reflected the hemp industry's perspective. Some additional concerns with respect to the process employed by this study group are listed below.

The Maryland Hemp Coalition exists "to cultivate a robust and thriving hemp industry in Maryland" and the Maryland Healthy Alternatives Association is "dedicated to ensuring that every Marylander has access to healthy alternatives to big-pharma's products". We firmly believe our input on this topic, in regards to the hemp-derived products under review in the study, is of utmost importance. The products under review were created by the hemp industry in response to the health and wellness market demand of our communities.

The first concern was the lack of involvement or correspondence with the designated representatives for Maryland’s hemp industry. In a letter dated January 13, 2022 from Will Tilburg addressed to the Maryland legislature, his plea for the study group included a concern of a “potential public health crisis”. It is vital to a study of this magnitude to consult and include the hemp industry itself for input on how to handle such an important matter. Therefore, it became even more apparent that the subsequent survey received without the hemp industry’s input, was **partial to a particularly desired outcome** by those involved in crafting said survey.

Secondly, **only about 27% of the parties chosen to participate in the study group have a direct involvement with the hemp industry**. The remaining parties have a direct involvement with the medical/adult-use cannabis industry. With this point alone any outcome from the study will be skewed in favor of the medical/adult-use cannabis industry.

Thirdly, it appears that even as a participant in the study, **the hemp industry was not treated as a participant but more like an invited witness**. An agenda was previously created for the “first meeting” without hemp industry input. And, as previously stated, the development of the “Chapter 511/512 Feedback Form” survey questionnaire which was sent to members of the study group, was also compiled without the hemp industry input.

After review of the aforementioned “feedback form” or survey, **it was apparent that there was an intentional outcome that was not in the best interest of the hemp industry**, hemp industry stakeholders, or the consumers that rely on the access of these products in a free and legal market. For example, the survey included a spreadsheet attachment that requested suggestions for predetermined THC limits that the respondent thinks “would create the best regulatory framework”. There is no flexibility built into this question with respect to scientific methods or consideration of bio-chemical ratios between CBD and THC, which can greatly reduce any risk of psychotropic responses in humans.

Furthermore, the **survey was flawed**. For example, this same question offered a limited range of THC from which to choose, between 0.0mg and 30.0 mg, but, the options available upon responding only went up to 25 mg. These are just a few instances where

**limitations had been set on the respondent and a pre-determined outcome was suggested.**

Establishing limits like these on any products containing cannabinoids should be based on science. Given the past prohibition of hemp and cannabis in general, we lack the important research needed to make these science-based determinations. Making these determinations at this point would be pure speculation.

Due to the unique differences in individuals (tolerance, body type, and medical conditions, etc.) or bio-individuality, this topic is biologically nuanced. Additionally it should be noted that the ratios of cannabinoids to THC that are typical to hemp products are unique and need addressing as such. These facts should have been incorporated into the survey.

The survey also requested the respondent to choose from a list of compounds (developed in part from Dr. Chad Johnson from the University of Maryland School of Pharmacy) which should be considered when determining the tetrahydrocannabinol (THC) content of a product. However, the **congressional intent was clear** on this point through the actions made in the 2018 Farm Bill and the amendments made to the Controlled Substance Act by the Agricultural Improvement Act of 2018 - Delta-9 THC was intended to be limited, not other THC isomers.

Several other questions throughout the survey requested input on the level of regulation of hemp-derived products, when compared to similar cannabis-based products. While also requesting input specifically on “products containing other isomers or derivatives of THC that are not naturally occurring in the hemp plant”. It is well known in both the hemp industry as well as the medical/adult-use cannabis industry that not all cannabinoids, in the plant *Cannabis sativa L.*, can be isolated or tested for using current technology and testing standards, to determine if said cannabinoids are naturally occurring or not. Another point highlighting that these **predetermined responses were not developed with a scientific approach.**

**Due to the discriminating nature of the pre-selected survey questions and response, the hemp industry was unable to provide clear input and feedback** through the

“Chapter 511/512 Feedback Form”. Instead a letter was submitted emphasizing these concerns.

## APPROPRIATE REGULATIONS

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It has been the current trend of Big Cannabis to propose, both publicly and privately to key decision makers, that the Delta 8 marketplace be relegated to their purview, and that the very long well established Hemp industry be excluded, or eradicated.

**We are concerned for all parties that well-intended but misguided actions that damage the long-term traditional Hemp market by legislation or regulation could clearly be considered in restraint of trade.** Such actions could result in costly and disruptive legal action among all parties, with serious unintended consequences for the public.

The Maryland hemp industry and hemp industry stakeholders agree that meaningful legislation and appropriate regulations are needed to ensure consumer safety. A plan has been drafted by vested parties in the Maryland hemp industry with goals such as:

- Create hemp representation within the Advisory Board of the Alcohol, Tobacco, and Cannabis Commission to provide advice and expertise with respect to plans, policies, and procedures applicable to the regulation of the production and sale of hemp derived products. Allowing for the Commission to establish regulatory control over these products. **(See Appendix A)**
- Define or redefine specific terms that allow for a clarified understanding of hemp extracts, hemp extract products, and hemp-derived cannabinoids or refined hemp products.
- Establish guidelines, standards and regulation for hemp extract and refined hemp products. **(See appendix B)**

- Align with neighboring states to encourage interstate commerce while bolstering the regional economy and the developing hemp industry

Both West Virginia and Florida are already utilizing a similar model as proposed above.

**We believe this type of regulatory structure works for both promoting consumer safety, while also cultivating a thriving hemp industry adjacent to the medical or adult-use cannabis industry.**

## SOCIAL AND ECONOMIC EQUITY

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The barriers to entry into the medical cannabis industry made it nearly impossible for traditional small business owners to be able to participate in it. As a result, many of these entrepreneurs with knowledge of this plant and strong passion to build a business in cannabis had no choice but to turn their attention toward the hemp industry.

In a Baltimore Sun article, **Hope Wiseman, owner of Mary & Main dispensary**, stated that **“it would take millions of dollars for someone to break into today’s tightly regulated [Cannabis] market,”** but said, **“...she knows folks of color who are building businesses around delta-8.”**<sup>7</sup>

The stinging lack of diversity in the initial Maryland medical cannabis license process has been highlighted by claims of racial, ethnic and gender disparity resulting in extensive press coverage and legal actions.

**Only 10% of MMCC’s program investors are minorities**, according to a recent study. In an attempt to achieve some level of parity the MMCC opened licensing in 2019, but the effort has been mired in litigation and investigations.<sup>8</sup> To the contrary, **25% of all licensed hemp producers are minority owned, and nearly 30% of all Hemp/CBD**

**specialty retail stores identify as “Black Owned”.** This percentage is greater than the state’s Black population which according to the 2020 U.S. Census data consists of 29% of the total population.

We are highly concerned that the dismantling of the Hemp infrastructure in Maryland will have a further negatively disproportionate effect on the minority stakeholders who could not achieve Cannabis licensure.

In Maryland, Hemp producers are essentially traditional outdoor farmers, not highly evolved and vertically integrated technical growers of the Cannabis trade. Moving hemp-derived products under the Cannabis licensing process would be the **equivalent of the effective elimination of small farmsteads in lieu of massive agricultural conglomerates.**

## LOCAL AND NATIONAL IMPACT

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Maryland has a strong hemp industry. This adjacent industry already includes many female-owned, Black-owned, and minority-owned businesses. Our resources extend to supply, manufacturing, distribution, and existing capital investment and infrastructure.

The economic impact of actions which ban or regulate delta-8 and other hemp-derived products, out of the Maryland Hemp Industry control, would create an instant **estimated capital loss of over \$15M and \$350M of annual sales.** This action would functionally terminate over 60 growers and affect hundreds of active and profitable businesses. For growers and cultivators, this would result in an effective business disenfranchisement of this class of owner/operators; for retailers and end users, the loss of product options.

The **loss of Maryland sales tax revenue** from these establishments is estimated to **exceed \$21M of non-recoverable funds.** In addition, there would be a corresponding reduction in corporate taxation. We also estimate the State paying out well **over \$2M of unemployment compensation and related social service benefits and economic security payments.** In addition to these recurring losses for industry and government, there will be the loss of startup capital, potential calling in of loans, bankruptcy filings and the personal impact to staff and families.

**Given that all products derived from hemp are considered hemp, converted hemp-derived cannabinoid products found new market opportunities that have not been available to medical or adult-use cannabis operators.** Hemp-based operators were also able to conduct interstate commerce, rather than being restricted only to the markets where the products were grown and processed (which is required of adult-use and medical cannabis products). **From the period from 2019 through 2022, sales of hemp-derived cannabinoids exploded and is estimated to be between \$5.5 - \$6.5 billion in the U.S. alone.**<sup>9</sup> Unlike adult-use and medical cannabis, hemp-based products can be sold in all traditional distribution channels and retail outlets.

**With the regulatory uncertainty already high due to federal inaction, additional uncertainty around state regulations has negatively impacted the national hemp industry.** Unsure of what the rules will be in three months, six months, or a year, Hemp industry stakeholders are unable to properly develop long term strategies, or even short-term operational strategies. Investments planned for hemp projects are now being allocated elsewhere. At a time where, in order to accelerate the growth of the market, supportive policies are necessary, more restrictive measures are being put in place that are doing just the opposite. **The lack of investment and deployment of the hemp infrastructure impacted the economic potential of U.S. hemp by \$20 - \$25 billion in 2021 alone. This is as large as the entire legal U.S. sales of the adult-use and medical cannabis retail industry.**<sup>10</sup>

## CONCLUSION AND RECOMMENDATIONS

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**Our Associations suggest that a cooperative venture between the Hemp and Cannabis market entities be promoted.** Such an approach would best serve the public and industry stakeholders.

Much of the narrative has been that hemp and adult-use cannabis are competing markets. However, given that there are significant differences in the distribution channels and consumer archetypes, there is not as much overlap as is assumed.



The Hemp industry currently provides Cannabis producers with an array of hemp-derived minor cannabinoids including Delta 8. These products are used to enhance the Cannabis products offered to the consumers of the regulated market. MSOs have embraced hemp-derived cannabinoid products to introduce their brands and secure market share in other states.

**If a public safety crisis exists why would major cannabis operators sell and promote these products?**

Given that there are differences in consumer types as well as with distribution channels, it appears on the surface that adult-use cannabis and hemp-based products can coexist.

In summary, we focus on these key messages:

- Our Association's are seeking an equitable outcome. We seek cooperation not competition in a supportive venture with Big Cannabis MSOs.
- We ask that you defer precipitous actions which, although well intended, may have significant negative consequences for this complex and not fully understood marketplace.
- We offer guidance, input, and access to our constituent data, and finally,
- We welcome your support for the century-old Hemp farming community that is a unique and valuable member of the Maryland marketplace.

# APPENDIX A:

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## AMENDMENTS TO SB0516/HB0556 FOR HEMP REPRESENTATION

The amendments presented below are to create hemp representation within the Advisory Board of the Alcohol, Tobacco, and Cannabis Commission to provide advice and expertise with respect to plans, policies, and procedures applicable to the regulations of the production and sale of hemp derived products. Allowing for the Commission to establish regulatory control over these products.

### 1-303.

- Page 5, lines 18-19: **TWO SHALL BE KNOWLEDGEABLE AND EXPERIENCED IN THE CANNABIS INDUSTRY; AND TWO SHALL BE KNOWLEDGEABLE AND EXPERIENCED IN THE HEMP INDUSTRY**

### 1-309.2.

- Page 11, line 24: **ADD - (VI) THREE REPRESENTATIVES FROM THE HEMP INDUSTRY;**
- Page 11, line 25: **~~(VI)~~ (VII)**
- Page 11, line 28: **~~(VII)~~ (VIII)**
- Page 12, line 3: **~~(VII)~~ (IX)**

# APPENDIX B:

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## STANDARDS FOR DELTA-8 THC AND THC ISOMER PRODUCTS

This language is provided as a sample of reasonable regulations for hemp-derived and refined hemp products and established by the Maryland Hemp Industry. Additional language can be provided as amendments to current proposed legislation upon request.

### I. DISTRIBUTION OF DELTA-8 THC AND THC ISOMER PRODUCTS

Delta-8 THC and THC isomer products may only be distributed and sold in the state if the extract or product:

1. Has a certificate of analysis prepared by a qualified testing laboratory which states that
  - a) The Delta 8 or Hemp-Derived THC Isomer Product is the product of a batch tested by the independent testing laboratory;
  - b) The batch contained an acceptable hemp THC level of a delta-9-tetrahydrocannabinol concentration that did not exceed 0.3 percent on a dry weight basis pursuant to the testing of a random sample of the batch; and
  - c) The batch does not contain contaminants unsafe for human consumption includes but is not limited to, any microbe, fungus, yeast, mildew, herbicide, pesticide, fungicide, residual solvent, metal, or other contaminant found in any amount that exceeds the accepted limitations as specified by COMAR, or other limitations pursuant to the laws of this State, whichever amount is less.
2. The Commission may analyze the certificate of analysis of the Delta 8 or Hemp-Derived THC Isomer Product and inspect the label to ensure that the product:

- a) Meets all proposed labeling claims.
  - b) Meets all requirements under this subsection and rules.
  - c) Contains an acceptable Delta 9 THC level.
  - d) Is not adulterated or misbranded
3. The Commission shall deny the sale of a delta-8 or THC isomer product in the State that does not meet the requirements of this paragraph or rules.
    - a) Delta 8 or Hemp-Derived THC Isomer Products manufactured or distributed or sold in violation of this subsection section shall be considered adulterated or misbranded

## **II. LABELING**

1. Delta 8 or Hemp-Derived THC Isomer Products for human consumption as a food or dietary supplement shall be labeled in accordance with FDA guidelines for food or dietary supplement labeling.
2. Delta 8 or Hemp-Derived THC Isomer Products produced for topical absorption by humans shall be labeled in accordance with FDA guidelines for Cosmetic Products Warning Statements.
3. Delta 8 or Hemp-Derived THC Isomer Products shall not contain disease or drug claims on the label that are not approved by the FDA.
4. Product labels must be clear and legible.
5. Labels must be printed in English.
6. The following labeling is forbidden:

- a) The product cannot be attractive to children. This includes, but is not limited to:
    - 1. The use of cartoons;
    - 2. The use of images popularly used to advertise to children; or
    - 3. The imitation of a candy label.
  - b) The label cannot include false or misleading information. This includes untrue or unproven information that leads consumers to have an inaccurate impression.
7. Labels will be considered misbranded when an analysis finds the claim is above or below 20% of the amount declared on the label.
8. The following requirements must be met for the primary label:
- a) The Delta 8 or Hemp-Derived THC Isomer Product must be identified with the generic or common name;
  - b) If the product contains Delta 8 or Hemp-Derived THC Isomers, the label must properly identify them; and
  - c) The net weight or volume of the contents of the package, in both metric and US customary units must be displayed.
9. The following requirements must be met for the information panel:
- a) Manufacturer's or Distributor's name and contact information;
  - b) Manufacturing or packaging date;
  - c) Batch or lot number;

- d) Instructions for use and any preparation needed;
  - e) List of all ingredients in descending order by weight or volume;
  - f) Allergens if applicable;
  - g) Artificial food coloring, if applicable;
  - h) Expiration or use by date, if applicable;
  - i) Refrigeration or refrigerate after opening warnings, if perishable after opening; and
  - j) For edible products, sodium, sugar, carbohydrates, and total fat per serving.
10. The Delta 8 or Hemp-Derived THC Isomer content, in milligrams, may be posted on either the primary or informational panel, and must include:
- a) Delta 8 or Hemp-Derived THC Isomers content per package for all manufactured products; and
  - b) Delta 8 or Hemp-Derived THC Isomers content per serving for all edibles and concentrates, with designated serving sizes.
11. A QR code, or similar tool, may be used in lieu of labeling requirements on the physical label's informational panel for all required information except that required by previous sections.
12. Delta 8 or Hemp-Derived THC Isomer Products should be easily distinguishable from that of a non Delta 8 or Hemp-Derived THC Isomer product. To provide a visual identifier for consumers, producers of Delta 8 or Hemp-Derived THC Isomer products may provide warning label. Such as:

“This product contains Hemp-Derived THC or an isomer of THC. Do not drive a car or participate in any other activity where motor function is required for

safety. Do not use if nursing or pregnant. This product is not for sale to anyone under 21. THC will also trigger a positive THC result on a drug test.”

### **III. INSPECTION AND TESTING**

1. The Commission may conduct random inspections of Delta 8 or Hemp-Derived THC Isomers distributed or made available for distribution in the state.
2. The Commission may conduct inspection of Delta 8 or Hemp-Derived THC Isomer Products distributed or available for distribution for any reason that the Department deems necessary.
3. Samples taken by the Commission or designee shall be the official samples.

### **IV. DISTRIBUTION OF DELTA 8 THC OR THC ISOMER PRODUCTS**

The purpose of this section is to prohibit the sale or distribution of products containing a Delta 8 or Hemp-Derived THC Isomers to, or purchase of products containing a Delta 8 or Hemp-Derived THC Isomers on behalf of, persons under twenty-one (21) years of age. **(ALREADY IN LAW)**

# CITATIONS

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- <sup>6</sup> AK FUTURES LLC,, v. BOYD STREET DISTRO, LLC,, D.C. No. 8:21-cv-01027- JVS-ADS, 9th Circuit Court of Appeals, March 18, 2022, Retrieved from [://cdn.ca9.uscourts.gov/datastore/opinions/2022/05/19/21-56133.pdf](http://cdn.ca9.uscourts.gov/datastore/opinions/2022/05/19/21-56133.pdf) November 18, 2022
- <sup>7</sup> USDA NASS report, [://www.nass.usda.gov/Statistics\\_by\\_State/Maryland/Publications/News\\_Releases/2022/2022-MD-Hemp\\_Press-Release.pdf](http://www.nass.usda.gov/Statistics_by_State/Maryland/Publications/News_Releases/2022/2022-MD-Hemp_Press-Release.pdf), retrieved November 10, 2022
- <sup>8</sup> Giacomo Bologna, May 12, 2022, “There is a Rapidly Expanding Unregulated Competitor...Delta 8, Baltimore Sun, retrieved November 18, 2022, [//www.baltimoresun.com/business/bs-bz-delta-8-maryland-20220512-uwdu3gvhcfahfc7jyc7hwakxre-story.html](http://www.baltimoresun.com/business/bs-bz-delta-8-maryland-20220512-uwdu3gvhcfahfc7jyc7hwakxre-story.html)
- <sup>9</sup> BEAU R. WHITNEY, Hemp Derived Cannabinoids- An Economic Impact Analysis of Cannabinoid Manufacturing in Colorado; Whitney Economics, October 2022; pg. 8
- <sup>10</sup> BEAU R. WHITNEY, Hemp Derived Cannabinoids- An Economic Impact Analysis of Cannabinoid Manufacturing in Colorado; Whitney Economics, October 2022; pg. 9



# **Element MD Bullet Points.pdf**

Uploaded by: Nkechi Iwomi

Position: FWA

- Element MD, LLC (“EMD”) is 97% Black-owned and 94% Black and female owned by Ms. Nkechi Iwomi.
- Ms. Iwomi owns 100% of the EMD facility’s underlying real estate in Princess Anne, Somerset County, Maryland.
- EMD was one of the first (and only one of 3) fully operational HB 2 licensees (only 3 of 14 are operational).
- For the 2019 HB 2 merit-based licensure process, Ms. Iwomi and EMD finished eighth in processing and ninth in cultivation (moving up to sixth after three of the other applicants ahead of her had been determined not to be truly minority owned).
- After having won her HB 2 processing license, Ms. Iwomi left Ohio and moved her family to Princess Anne, MD.
- Ms. Iwomi chose to locate EMD in one of most socially and economically disadvantaged counties in Maryland.
  - In Somerset County, the ACLU estimates that Black people are 4.2X more likely to be arrested for cannabis than white people. <https://graphics.aclu.org/marijuana-arrest-report/MD>
  - Somerset county is historically one of the least-wealthy, most-disadvantaged areas, not only within Maryland but also within the United States. According to the data provided by the Maryland Department of Commerce, the median household income in Somerset was \$39,239 for the years 2013-2017. This number is well below the U.S. average of \$57,652 for the same period.
  - These statistics are even worse when you consider the Maryland median household income was \$78,916, more than double the median for Somerset County. In 2019, unemployment in Somerset was 6.1%, almost double the Maryland rate of 3.6%. Somerset and the surrounding counties have historically faced economic challenges, but matters are worse today than ten years ago due to the devastation Hurricane Sandy brought to the region.
  - Poverty rates are excessively above the national average of 10.5% at 23.4% for Somerset County and even worse in one of its predominant cities, including Crisfield at 38.61%. All of this is before any new 2020 Census data has been released, which is surely to reflect an even worse economic outlook given the global pandemic.
- Ms. Iwomi successfully responded to a Request For Proposal by the City of Crisfield and was afforded the opportunity to purchase the historic Carvel Hall (which she did and owns 100%).
  - Carvel Hall is a 70,000 square foot building sitting on 20 acres in Crisfield.
  - The citizens of Crisfield are over 33% black.
  - Crisfield has one of the highest arrest rates in the State at over 2000/100,000 and crime having risen over 266% from 2019 to 2020. <https://mdsp.maryland.gov/Document%20Downloads/Crime%20In%20Maryland%202020%20Uniform%20Crime%20Report.pdf>
  - EMD has already begun renovating Carvel Hall for indoor agriculture.
- At present, Ms. Iwomi has been able to locate only one grower able to sell EMD high-quality fresh frozen biomass and at that price the input cost represents 78% of the wholesale value of the concentrate EMD manufactures (meaning the wholesale price EMD can sell that concentrate to a dispensary is made at a significant loss).
- We are aware of no other state in the US that did not allow a process of immediate conversion of a medical cannabis license to an adult use license. The policy justification being, without such an approach, the state adult use market would be delayed for years until the new licenses were issued and operational.

**SB 516 Testimony\_Element MD\_Nkechi Iwomi.pdf**

Uploaded by: Nkechi Iwomi

Position: FWA



Element MD, LLC © 11501 Progress Ln., Princess Anne, MD 21853

Chairwoman Griffith, Vice Chair Klausmeier, Members of the Committee, my name is Nkechi Iwomi and I am Founder and Chief Executive Officer of Element MD, LLC. Element is a stand-alone processor of which I own over 94%, in addition to my 100% ownership of the underlying real estate. We are located in Princess Anne in Somerset County at the tip of the lower Eastern Shore where we moved our family and have resided since December of 2020. I thank you for the opportunity to come before you today to offer favorable testimony on Senate Bill 516 and present some matters for your consideration for amendments to this groundbreaking piece of legislation.

We were blessed to be awarded our processing license as part of the 2018 House Bill 2 merit-based award process where we finished in the top nine in both processing and cultivation. Element and the other House Bill 2 licensees represent the most thoroughly vetted class of awardees the national commercial cannabis industry has seen. After the State first determined we were the most highly qualified candidates through its merit-based award process, we were forced to undergo deposition level questioning and subpoena level document requests to further prove we were truly minority owned and not a front.

After battling through the global pandemic and facing raging inflation and ice-cold capital markets, my husband and I invested our life savings and left our successful careers to build Element's facility and operations in one of the most economically disadvantaged counties in Maryland. I am proud to say we not only received our Stage II permit in October of 2022, but I gave birth to twin baby girls in September 2021 who will forever be "from-heres" not "come-heres" like their parents. We could have sold our license to out-of-state business interests, as so many of the original licensees did; but we chose not to, in fulfillment of our mission and commitment to the State to ensure a real Black owned business was operating and creating economic opportunity for others in a community in desperate need.

While SB 516 has taken a forward-thinking approach to addressing matters of social equity in future licensure, the present definition fails to include the vast majority, if not all, of the House Bill 2 licensees. Should the definition of Social Equity Applicant be amended to include the House Bill 2 licensees and SB 516 further promote vertical integration, Maryland's expanded medical and adult use cannabis program would benefit from the State's prior investment in the intensive vetting of the HB 2 awardees and more rapidly address the lack of black-owned cultivation facilities in Maryland). Should the HB 2 licensees not be included in the new definition of Social Equity Applicant, the HB 2 licensees will not have access the resources wisely allotted in SB 516, which are so desperately needed for all minority businesses entering the extremely competitive Maryland marketplace that is utterly dominated by the white-owned businesses originally licensed under the State's initial award process.

Therefore, we would respectfully suggest this Committee consider amending SB 516 to add the HB 2 licensees to the definition of Social Equity Applicant and provide the corresponding stand-alone processors and growers the opportunity to apply for a fast-tracked standard processor or grower license, and one dispensary, should they meet the required qualifications already outlined in the present draft of the bill. The State promoted vertical integration in this exact same way when it allowed growers to opt-in to receiving a dispensary license and directly awarded a grower/processor license to qualifying stand-alone processor/growers who were not vertically integrated.

We are not recommending the State do anything it has not already done before. We are asking for the State to do what it has done in the past to correct systemic issues in the States cannabis marketplace (which just so happened to directly benefit the original, almost exclusively white owned businesses awarded licenses as part of the State's initial process). We are not asking for a hand-out for the HB 2 licensees. We are asking to not be excluded from the State's past and present efforts to ensure the success of its licensees, and to do so in support of Black owned businesses like Element who have risked everything to help lift up others.

Thank you and I am available to answer any questions.

Respectfully,

Nkechi Iwomi  
Majority Owner, Sole Manager, and Chief Executive Officer  
Element MD, LLC  
(410) 251-0178

**MPP FAV SB 516.pdf**

Uploaded by: Olivia Naugle

Position: FWA



March 9, 2023

SB 516

**Testimony from Olivia Naugle, senior policy analyst, MPP, favorable with amendments**

Dear Chair Griffith, Vice Klausmeier, and members of the Senate Finance Committee:

My name is Olivia Naugle, and I am the senior policy analyst for the Marijuana Policy Project (MPP), the largest cannabis policy reform organization in the United States. MPP has been working to improve cannabis policy for 27 years; as a national organization, we have expertise in the various approaches taken by different states.

MPP has played a leading role in most of the major cannabis policy reforms since 2000, including more than a dozen medical cannabis laws and 12 of the 21 campaigns to enact legalization laws, including the first two states to legalize cannabis through the state legislature, rather than the ballot box — Illinois and Vermont.

The Marijuana Policy Project strongly supports legalizing and regulating cannabis for adults 21 and older and doing so in a way that repairs the damage inflicted by criminalization.

**MPP supports SB 516 with amendments**

This past election, Maryland voters voted overwhelmingly in favor (67.2 percent) of Question 4 — a constitutional amendment to legalize cannabis for adults in Maryland beginning July 1, 2023. In fact, the passage of Question 4 was the highest margin of any ballot measure to legalize cannabis.

However, Question 4 did nothing to regulate sales of cannabis to adult consumers. We're grateful the General Assembly has made implementing an equitable adult-use cannabis market a goal for this legislative session. I am here today to discuss the positive impacts this policy change will have for Maryland, offer some suggestions to improve the bill as currently written, and encourage the legislature to move forward with this important reform.

**Cannabis regulation is a better policy than prohibition**

More than 700,000 Marylanders admit to having used cannabis in the last year. Allowing legal businesses to meet that demand eliminates the vast majority of illicit market sales and leads to safer outcomes for communities and consumers. In the illicit market, both parties are vulnerable to armed robbery, and disputes cannot be solved in the courts.

Replacing prohibition with legalization, taxation, and sensible regulation is also far better for workers. In the illicit market, workers are vulnerable to exploitation, and they risk felony convictions and prison time. A regulated market offers important protections to workers, from health and safety regulations to unemployment insurance and social security, and all the advantages of working in a legal industry instead of the sometimes-dangerous illicit market.

Finally, prohibition guarantees cannabis won't undergo quality control testing, resulting in possible contamination by pesticides, fertilizers, molds, bacteria, or the lacing of cannabis with other drugs or additives, unnecessarily putting consumers at risk. SB 516 would replace cannabis prohibition with regulation. It takes marijuana production and sales off the streets and ensures regulated, labeled, and lab-tested products while creating thousands of new jobs; new small businesses; and hundreds of millions of dollars in annual tax revenue to serve the community.

## **Proposed amendments to SB 516**

While there are several areas of the bill that are worthy of praise, there are others that we hope are improved before passage.

### Prioritizing Medical Cannabis Access and Prices During the Transition

We understand the desire for legal cannabis access for adult consumers when possession becomes legal on July 1. However, we urge that this be done in a way that ensures medical cannabis patients do not face skyrocketing prices and shortages during the transition.

SB 516 requires dispensaries to set aside certain hours for patients and caregivers and requires dispensaries to ensure they have an adequate supply for medical use. While these are important, they are not sufficient.

Demand for legal cannabis in Maryland will go up dramatically on July 1, but there will be no immediate increase in the number of growers or processors. 162,300 Marylanders are registered medical cannabis patients<sup>1</sup>, while 4.7 times that number — 758,000 adults — admit to consuming cannabis at least once in the past year<sup>2</sup>. Meanwhile, none of Maryland's border states have legal cannabis access for adults, so it will also have significant cross-border demand. We can expect the laws of supply and demand to result in higher prices.

Dispensaries' obligation to ensure an adequate supply does not appear to have an enforcement mechanism and supply is often largely out of dispensaries' hands. Even before the transition to adult-use, independent Maryland dispensaries have had times of shortages when they could not obtain an adequate supply of some products. There is no provision to ensure growers and processors avoid shifting more cannabis to their own, affiliated dispensaries, nor is there a

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<sup>1</sup> [https://mmcc.maryland.gov/Documents/2023%20 PDF Files/Patient%20Stats/commission\\_stats\\_patients\\_Bi-weekly%20%28Jan23%29.pdf](https://mmcc.maryland.gov/Documents/2023%20PDF%20Files/Patient%20Stats/commission_stats_patients_Bi-weekly%20%28Jan23%29.pdf) <sup>2</sup> <https://www.samhsa.gov/data/sites/default/files/reports/rpt32879/NSDUHsaeTotal2019/2019NSDUHsaeTotal.pdf>



provision to avoid skyrocketing wholesale (or retail) prices that would be passed on to patients. Many patients already struggle to afford cannabis, which is not covered by insurance.

As a condition of converting to serve adults before any other licensee, SB 516 should require concrete actions from growers and processors, in addition to dispensaries, to ensure an adequate supply of medical cannabis, with strong enforcement. All licensees have a responsibility to do their part to ensure medical prices do not increase during the transition. To reduce issues, the state could also consider a temporary, lower cap on purchases from adult-use consumers and/or a delay in out-of-state residents' purchases. Maryland could also suspend adult-use sales in the event of shortages or price hikes for patients. In times of limited supply, patients need to be the priority.

### Issuing Enough New Licenses for Social Equity & to Outcompete the Illicit Market

Maryland should issue a large number of social equity licenses to create a diverse and equitable industry. It is vital to their success that new dispensaries and producers have an adequate supply at competitive prices. An adequate supply, affordable prices, and easy access throughout the state are also essential to outcompeting the illicit market and thus reducing the number of felony arrests and violence related to illicit sales, and to ensuring consumers have safer, lab-tested products.

We urge the following to serve those goals:

- The number of licenses issued in round one, two, and overall should be the *minimum* — not the maximum — number of licenses the Division can issue. As drafted, the numbers are the *maximums* and there is no minimum number to be issued. (If there is a concern about oversupply, the Division could consider tiering cultivation licensing and having a reasonable statewide canopy cap that is adjusted. Many cultivators will not grow the full 300,000 square feet.)
- The market demand study should be required to solicit input from patients, consumers, independent dispensaries, and processors on prices and access.
- The bill should remove the cap on total licenses, which is imposed regardless of market conditions. They should require the Division to issue as many licenses as are needed for an adequate, affordable supply that outcompetes the illicit market statewide.

### Increasing and Continuing Funding for Social Equity and Community Reinvestment

Cannabis prohibition was borne of racism more than 80 years ago and has been enforced in a racially biased manner for its long history.<sup>2</sup> The bulk of cannabis tax revenue should be

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<sup>2</sup> A Tale of Two Countries: Racially Targeted Arrested in The Era of Marijuana Reform. *ACLU* 2020.

Dan Baum, "Legalize It All," *Harper's Magazine*, Apr. 2016. (Quoting top Nixon aide John Ehrlichman, "The Nixon campaign in 1968, and the Nixon White House after that, had two enemies: the antiwar left and Black people. You understand what I'm saying? We knew we

directed to reparative justice, hard-hit communities, and to creating an equitable, diverse industry at all levels, as most recent legislatively enacted legalization laws have done.

Under SB 516, only 31.5% of the tax revenue is redirected to community reinvestment, social equity start-up, and training. The bill also allocates \$5 million per year for businesses partnering with social equity applicants. Other than that, all funding for community reinvestment and social equity appears to end within 10 years.<sup>3</sup> We recommend:

- Funding for community reinvestment, which currently appears to end in FY 2033, should not sunset.
- Funding for the Cannabis Assistance Fund, which currently ends in FY 2028, should not sunset. (The fund is used for grants to small, minority-owned, or women-owned businesses; license application assistance; training for the adult-use industry; and grants to HBCUs for cannabis-related programs and business development).
- Especially since it is the only source of equity-related funding that does not sunset, the \$5 million per year for Social Equity Partnerships should be available for social equity applicants that wish to operate *independently*, instead of being limited to partnerships between existing (mostly white) businesses and social equity licenses.
- The legislature should make additional allocations well above 31.5% of tax revenue to support communities hardest hit by prohibition and racism. They should not sunset.

### Including Employment Protections

While SB 516 includes some anti-discrimination protections for testing positive for cannabis (including in organ transplants and child custody), the bill explicitly allows employers to keep firing workers for responsible cannabis use, including for metabolites that stay in one's system for 30 days. This stands in contrast to many recent legalization laws, including in New York, New Jersey, Rhode Island, and recent revisions to California's laws.

We recommend including language to prevent employers from firing workers for testing positive for THC — or at least inactive metabolites — as long as they do not work while impaired and federal law does not require otherwise. At a bare minimum, state and local government employers should not be able to fire workers for using cannabis off-hours.

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couldn't make it illegal to be either against the war or black, but by getting the public to associate the hippies with marijuana and blacks with heroin, and then criminalizing both heavily, we could disrupt those communities. We could arrest their leaders, raid their homes, break up their meetings, and vilify them night after night on the evening news. Did we know we were lying about the drugs? Of course we did.")

<sup>3</sup> SB 516 sunsetting the allocation in 2033 is incongruent with last year's HB 837, which provides that the Community Reinvestment and Repair Fund includes "revenue distributed to the fund that is at least 30% of the revenues from adult-use cannabis," and does not include a sunset. Health Article § 13-4601

Cannabis use can be detected for weeks after ingestion, meaning drug screens in no way correlate with impairment.<sup>4</sup> Thus, marijuana patients and users will be subject to unfair discrimination when they are not impaired, for purely legal off-duty conduct.

## **Conclusion**

Thank you Senator Feldman and Senator Hayes for your leadership on this important issue and commitment to establishing an equitable cannabis industry in Maryland. We urge the committee to consider our proposed amendments and issue a favorable report of SB 516.

Thank you for your time and attention. If you have any questions or need additional information, I would be happy to help and can be reached at the email address or phone number below.

Sincerely,

Olivia Naugle  
Senior Policy Analyst  
Marijuana Policy Project  
onaugle@mpp.org  
202-905-2037

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<sup>4</sup> "How long can you detect marijuana (cannabis) in the body?," *Medical News Today*

**SB516 FWA testimony Mayor Mahoney.pdf**

Uploaded by: Patrick Mahoney

Position: FWA



Good Afternoon Honorable Senators,

**SB516 – Favorable With Amendment**

I am Chesapeake Beach Mayor Pat Mahoney providing testimony on behalf of the Town Council and citizens asking you to give SB516 (Cannabis Reform) a favorable report with amendment.

The amendment being that SB516 include language that **honors pre-existing municipal zoning regulations, relating to cannabis dispensaries, that were enacted before January 1, 2023.**

In 2022 (Ordinance O-22-12) the Town of Chesapeake Beach unanimously adopted zoning regulations that specifically do not permit cannabis dispensaries (recreational/medical) within our town limits. This ordinance and regulations were part of an overall Town Comprehensive Plan. Numerous Public Hearings were held with no citizen opposition and unanimous support (6-0 vote) from the Town Council.

Pardon me for taking this liberty to offer suggested verbiage: page 49, line 5 of SB516 could be amended to read:

2) Establish zoning or other requirements that unduly burden a cannabis licensee **unless such zoning regulations were enacted before January 1, 2023.**

Thank you for your consideration.

Sincerely,

  
Mayor Patrick J. Mahoney

Chesapeake Beach

**SB516 testimony.pdf**

Uploaded by: Phyllis McWilliams

Position: FWA

03/09/2023

My name is Phyllis McWilliams and I live at 10313 Gretchen Nicole Court, Woodstock, MD 21163 – Howard County. I wanted to provide testimony on SB 516. I am definitely in support of the bill and it's a long time in coming for such a progressive state as Maryland. I wanted to provide comment/questions on section **36–302 (B) (1) and (B) (2)**.

I am requesting that more specificity be added to the bill about the definition of the four plants that are allowed to be grown by medical patients over the age of 21. For the purposes of home cultivation by a medical patient, what is considered a plant? Mature, flowering plants? Seedlings? Plants in a vegetative state? I would like more clarification in the law. Most states distinguish between mature plants and immature plants. Mature plants being only plants in the flowering stage. Therefore seedlings and plants in a vegetative state may not count toward one's plant limit. In other states immature plants, seedlings, mother plants, and/or any non-flowering plants are not included in the home cultivation limit.

Additionally the cap of 4 plants in a household with two or more qualified patients seems unfair. Why should a household with 2 or more qualified patients be discriminated against and treated the same as a household with only 1 qualified patient? I would propose that the limit be raised to 8 plants in a household with two or more qualified patients.

Thank you for your time and consideration of my testimony.

Sincerely,

Phyllis McWilliams  
(410) 218-5572  
Redlion42@verizon.net

**SB516 testimony.pdf**

Uploaded by: Phyllis McWilliams

Position: FWA



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(410) 218-5572  
Redlion42@verizon.net

**SB516-cannabis\_reform-joint\_LOI-MdPHA-FNL.pdf**

Uploaded by: Raimee Eck

Position: FWA



***Mission:** To improve public health in Maryland through education and advocacy **Vision:** Healthy Marylanders living in Healthy Communities*

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**Attn: Senate Finance Committee**

**Re: SB 516 Cannabis Reform**

**Hearing Date: March 9, 2023**

**LETTER OF INFORMATION**

On behalf of the Maryland-DC Society of Addiction Medicine (MDDCSAM), the Maryland Public Health Association (MdpHA), and the National Council on Alcoholism and Drug Dependence, Maryland Chapter (NCADD), we commend Maryland lawmakers' efforts to thoughtfully balance the considerable benefits of cannabis legalization against the foreseeable public health harms. We recognize and appreciate that cannabis legalization will result in a profound reduction in serious harms related to over-criminalization. We are writing to ensure that the foreseeable public health harms are understood and to suggest ways to minimize them.

Experience in other states suggests that legalization will increase cannabis use,<sup>1,2,3</sup> daily cannabis use,<sup>4</sup> and the use of high-potency (i.e., high THC content) cannabis products,<sup>5,6</sup> and will increase the prevalence of cannabis-related harms among some individuals.

Most people who use cannabis do not experience problems. However, cannabis-related harms are not rare and will become more common after legalization. The most significant potential harms are an increased prevalence of cannabis use disorder (CUD, sometimes called cannabis addiction) and of cannabis-related mental health conditions.

At the end, we suggest several amendments for the regulatory framework that are informed by the information below.

**CANNABIS USE DISORDER (CUD)**

Approximately 22% of those who use cannabis develop CUD.<sup>7</sup> The risk is quite low (on the order of 2-4%) for those using less than monthly, but is much higher (on the order of 30-50%) for those using daily.<sup>8</sup> The risk is greater the younger the age at starting cannabis use.<sup>7</sup> About one-in-ten of all people seeking treatment for any substance use disorder are seeking treatment for CUD.<sup>9</sup> About 20% of adolescents develop CUD within four years of beginning cannabis use.<sup>10</sup>

CUD can be broadly defined as the loss of control over cannabis use even when it causes significant and sustained impairment in functioning. Specific criteria for diagnosis are found in the American Psychiatric Association's Diagnostic and Statistical Manual, 5<sup>th</sup> Edition (DSM-5). Like other substance use disorders, CUD significantly impairs a person's ability to function in psychological, behavioral, social, educational, and/or vocational domains.

Cannabis legalization laws are associated with a 20% increase in the rate of cannabis use by adults<sup>3</sup> and with a 25% increase in the prevalence of CUD in adults.<sup>11</sup> This is consistent with the association of legalization

laws with an increase in potential CUD “risk factors,” such as electronic drug delivery methods (e.g., “vaping,” “e-cigarettes”), marketing and promotion, and increased THC content.<sup>12</sup> Legal dispensary products often contain up to 85% THC. Higher THC concentrations are associated with increased risk of CUD, psychosis, and other negative outcomes.<sup>13,14,15,16,17,18</sup>

Even without CUD, regular cannabis use can potentially result in a host of ongoing impairments that are not always recognized as cannabis-related. Withdrawal symptoms, which can cause significant distress or impairment, can make it difficult to stop using cannabis even in those without CUD. There is reason to believe that practices that make cannabis more easily accessible (e. g., delivery services) will increase cannabis use and the attendant risk of unhealthy use.<sup>19</sup>

## **MENTAL HEALTH EFFECTS**

Acute cannabis use is associated with impaired learning, memory, and motor coordination, as well as decreased ability to plan, organize, solve problems, and make decisions (which are called executive functions). These impairments can lead users of cannabis to make risky decisions.<sup>20</sup> Cannabis intoxication is associated with anxiety, panic attacks, and paranoia, as well as psychosis (delusions, hallucinations), especially in those with a history of psychosis from any cause or who are vulnerable to psychosis.<sup>21</sup> Legalization of cannabis for adult use is associated with increased prevalence of hospitalization for cannabis-associated psychosis.<sup>22</sup>

Long-term regular cannabis use is associated with a number of mental health effects, primarily in those who use at least weekly. A common adverse effect is impaired cognitive performance, including impairments in attention and working memory, information processing speed, and executive functioning,<sup>23</sup> especially in adolescents.<sup>24</sup> Cognitive performance may take months to normalize after cannabis cessation. Regular cannabis use is associated with worsening of anxiety, depression, and bipolar disorder symptoms and increases the likelihood of developing a depressive disorder.<sup>25,26,27</sup> It is also associated with a greatly increased risk of developing first-episode psychosis. The risk is even higher with use of high-potency cannabis (i.e., high THC content).<sup>17</sup> Cannabis use is also associated with a significantly increased risk of suicidal ideation, suicide planning, and suicide attempts.<sup>28</sup>

Long-term regular cannabis use beginning in adolescence is associated with educational, occupational, and social & interpersonal impairments.<sup>24</sup>

## **EFFECTS ON PREGNANCY**

Cannabis legalization is associated with increased cannabis use by women before getting pregnant, during pregnancy, and after giving birth.<sup>29</sup> Prenatal (*in utero*) exposure of the fetus to cannabis is associated with short-term and long-term adverse effects, including low birth weight and neonates small for gestational age.<sup>30</sup> Prospective longitudinal studies suggest that prenatal cannabis exposure is associated with subtle neurobehavioral effects in childhood. The American College of Obstetricians and Gynecologists recommends against cannabis use during pregnancy or breastfeeding.<sup>31</sup> Cannabis legalization is associated with increased rates of hospitalization with cannabis-involved pregnancy.<sup>32</sup>

## **CANNABIS USE WILL LIKELY INCREASE OVER YEARS OR DECADES:**

It is too early to fully assess health effects of legalization laws. Most experts predict that legalization and commercialization will continue to reduce the cost of cannabis products substantially over time.<sup>12,33,34</sup> Since it will take many years for commercial markets to mature, it may not be possible to fully assess their health



effects until the 2030s.<sup>35</sup> The removal of cannabis prohibition has already led to a price collapse in multiple states (e.g., at least a 70% drop in wholesale prices in Colorado, Oregon, and Washington).<sup>36</sup> Rates of cannabis use are expected to be price-sensitive, as rates of alcohol and tobacco use are known to be.

## **GUARDRAILS NEEDED AGAINST INDUSTRY’S POTENTIAL INFLUENCE ON PUBLIC HEALTH**

Over time, one can expect the burgeoning cannabis industry to engage in practices designed to maximize profits by enlarging the user base and promoting regular and heavy use. Most sales and profits come from those who use heavily or have CUD.<sup>12,35</sup> Heavy, daily, or near daily consumers of cannabis (10-20% of all consumers) are responsible for approximately 60-80% of total cannabis consumption; this incentivizes the cannabis industry to encourage heavy, daily cannabis consumption.<sup>19</sup> Sound public health policies are likely more effective when enacted early, “before a large and profitable cannabis industry has developed with the financial and political resources to resist public health regulation, as the alcohol industry has effectively done in most developed countries.”<sup>33</sup> A public health framework for legalized cannabis should be based on best public health practices established for tobacco control.<sup>37</sup> The World Health Organization’s Framework Convention on Tobacco Control states that “[Governments] should not allow any person employed by the tobacco industry or any entity working to further its interests to be a member of any government body, committee or advisory group that sets or implements tobacco control or public health policy.”<sup>37</sup>

## **AMENDMENTS FOR CONSIDERATION**

### **Article—Alcoholic Beverages**

#### **1-101: Makeup of the new Alcohol, Tobacco and Cannabis Commission**

- Only one new position with knowledge and expertise in the cannabis industry
- Amend the public health position to require expertise in alcohol, tobacco, and/or cannabis

#### **1-309.2: Makeup of Advisory Board on Medical and Adult-Use Cannabis**

- To avoid swaying this Board to industry (see section above on Guardrails Against Industry Influence), eliminate industry positions, include a member from all five topics under 4b, and include a conflict of interest clause, as with the ATC and Medical Cannabis Commission Commissioners

### **Division III. Cannabis**

#### **Subtitle 1. Definitions**

- Authorization to certify for medical cannabis should not be expanded to providers who are not entitled to prescribe controlled substances (i.e., registered nurses)

#### **Subtitle 2. Cannabis Regulation and Enforcement Division**

##### **36-203**

- Include basic labeling requirements besides child-proof packaging—THC potency, all ingredients, serving size, servings per container, calories (if applicable)

#### **Subtitle 4. Cannabis Licensing**

- Eliminate the delivery license
- Remove exemption to the MD Clean Indoor Air Act for on-site consumption establishments
- Eliminate the ability for a food service facility to apply for an on-site consumption license
- Remove preemption of local control for all license types

#### **Subtitle 9. Advertising**

##### **36-902**

- All advertisements for products containing cannabis, regardless of whether or not they make medical or therapeutic claims, should be labeled with information on the most significant side effects or risks
- Permissible medical or therapeutic claims should be determined by the Public Health Advisory Council. Therapeutic claims should be based on evidence interpreted by unbiased experts without the potential for influence by persons associated with the cannabis industry.

#### **Subtitle 10. Responsible Vendor Training Program**

- Training should include risks of cannabis use including CUD, risks of consumption by women considering pregnancy or who are pregnant or breastfeeding, risks of evoking psychosis (especially in those with a history of psychosis), etc.
- Training should include how to identify intoxicated individuals and strategies to prevent overservice

#### **Subtitle 11. Prohibited Acts**

##### **36-1103**

- Create a reasonable potency cap that is valid across all non-medical license types without exception.

#### **Article Tax—General**

##### **2-1302.2**

- The proportion of funds allocated to the Cannabis Public Health Advisory Council should be increased to 5%. The Council needs adequate funding and staff to carry out its important mission of developing and enforcing appropriate public health safeguards and monitoring their effectiveness. Minimizing, if not eliminating the exposure of vulnerable groups (adolescents, pregnant and breastfeeding women, individuals with a history of psychosis) to recreational cannabis cannot be successful without strict monitoring and enforcement of public health regulations that carry penalties sufficient to deter violations. This mission requires an adequately funded and staffed CPHAC.
- A portion (5%) of funds should be allocated to fund programs for the prevention and treatment of CUD and other cannabis-related harm

##### **11-104**

- Adult use cannabis should be labeled with THC potency, and taxation should be based, at least in part, on THC potency, as in Connecticut, Illinois, and New York

**Respectfully submitted by:**

The Maryland-DC Society of Addiction Medicine (MDDCSAM)  
The Maryland Public Health Association (MdPHA)  
The National Council on Alcoholism and Drug Dependence, Maryland Chapter (NCADD)

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*The Maryland Public Health Association (MdPHA) is a nonprofit, statewide organization of public health professionals dedicated to improving the lives of all Marylanders through education, advocacy, and collaboration. We support public policies consistent with our vision of healthy Marylanders living in healthy, equitable, communities. MdPHA is the state affiliate of the American Public Health Association, a nearly 145-year-old professional organization dedicated to improving population health and reducing the health disparities that plague our state and our nation.*

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Position: FWA



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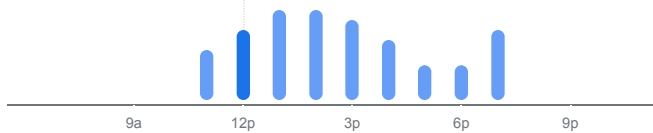
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# **Maryland Hemp Industry White Paper - Proposed Amen**

Uploaded by: Randy Shayotovich

Position: FWA



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- Maryland's hemp industry represents over \$15.5M in estimated capital investment for the 62 licensed growers and an additional \$2.5M in estimated capital invested for the 60 CBD/Hemp specialty shops, a third of which are Black-owned.
- Maryland's hemp market yields an estimated **\$370M** in product sales.
- The hemp industry serves a distinct market and customer-base, including federal employees and those who do not want to use an extremely potent recreational cannabis product.
- Hemp products provide the relief for a variety of ailments without the potent and long-lasting intoxicating effect of recreational cannabis.
- The hemp industry would continue to thrive even after the opening of the adult-use recreational cannabis market.
- As written, HB556 - Cannabis Reform would inadvertently put an end to the hemp industry in Maryland.
- Attached are suggested amendments to **HB556 - Cannabis Reform** to ensure the hemp industry is not wiped out come July 1, 2023.
- Also attached is draft bill language outlining the regulatory framework for the hemp industry that could be housed under the newly established Alcohol, Tobacco, and Cannabis Commission.



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### **Proposed Amendments to HB556**

Page 18, line 19: **(C) (1) A DELTA-9 TETRAHYDROCANNABINOL CONCENTRATION GREATER THAN [0.3%] 1% ON A DRY WEIGHT BASIS.**

*The USDA Final Rule establishes that the THC threshold for a negligent violation is 1.0 percent per the USDA's FR. Currently, federal law states that "hemp" with a delta-9- THC concentration greater than 0.3% and less than 1% is considered "non compliant" and can be remediated. As stated in the Final Rule "Remediation" refers to techniques utilized to transform non-compliant cannabis into something useful and compliant.*

Page 69, lines 24: **(A) (1) [0.5 MILLIGRAMS OF TETRAHYDROCANNABINOL PER SERVING OR 2.5 MILLIGRAMS OF TETRAHYDROCANNABINOL]-1% DELTA-9-TETRAHYDROCANNABINOL ON A DRY WEIGHT BASIS UNLES THE PERSON IS LICENSED**

*This would effectively kill the entire CBD hemp industry. The following language criminalizes federally legal hemp CBD products. Products that comply with the 0.3% delta9 THC limits are criminalized by this clause. See attached letter addressing THC dosing.*

Page 70, Line 8, STIRKE: **~~(B) A PERSON MAY NOT SELL OR DISTRIBUTE A CANNABINOID PRODUCT THAT IS NOT DERIVED FROM NATURALLY OCCURRING BIOLOGICALLY ACTIVE CHEMICAL CONSTITUENTS.~~**

**NOTE:** We have a model for a regulatory structure for these products that incorporates the Maryland Medical Cannabis Commission's recommendations, *HB1204*.

*It is well established in both the hemp industry as well as the medical/adult-use cannabis industry that not all cannabinoids in the plant Cannabis sativa L. can be isolated or tested for, using current technology and testing standards, to determine if said cannabinoids are "naturally occurring" or not. There are over 160 known naturally occurring cannabinoids, but independent testing laboratories can only test for up to 21 cannabinoids. That means **only 13%***



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*of the known naturally occurring cannabinoids can be tested using current technology and testing standards. It is unclear what the purpose or enforcement of this clause would be because a cannabinoid product could be derived from naturally occurring chemical constituents but, because the labs only test for up to 21 cannabinoids, that same product would be deemed illegal due to this clause.*

**Pages from sb0516F.pdf**

Uploaded by: Randy Shayotovich

Position: FWA



1 MOTOR VEHICLE, AIRCRAFT, OR BOAT WHILE UNDER THE INFLUENCE OF CANNABIS;

2 (2) USE CANNABIS IN A PUBLIC PLACE;

3 (3) USE CANNABIS IN A MOTOR VEHICLE;

4 (4) EXCEPT AS PROVIDED IN SUBSECTION (B) OF THIS SECTION,  
5 SMOKE CANNABIS ON A PRIVATE PROPERTY THAT:

6 (I) 1. IS RENTED FROM A LANDLORD; AND

7 2. IS SUBJECT TO A POLICY THAT PROHIBITS THE  
8 SMOKING OF CANNABIS ON THE PROPERTY; OR

9 (II) IS SUBJECT TO A POLICY THAT PROHIBITS THE SMOKING OF  
10 CANNABIS ON THE PROPERTY OF AN ATTACHED DWELLING ADOPTED BY ONE OF THE  
11 FOLLOWING ENTITIES:

12 1. THE BOARD OF DIRECTORS OF THE COUNCIL OF UNIT  
13 OWNERS OF A CONDOMINIUM REGIME; OR

14 2. THE GOVERNING BODY OF A HOMEOWNERS  
15 ASSOCIATION; OR

16 (5) POSSESS CANNABIS, INCLUDING CANNABIS PRODUCTS, IN A  
17 LOCAL DETENTION FACILITY, COUNTY JAIL, STATE PRISON, REFORMATORY, OR  
18 OTHER CORRECTIONAL FACILITY, INCLUDING A FACILITY FOR THE DETENTION OF  
19 JUVENILE OFFENDERS.

20 (B) THE PROVISIONS OF SUBSECTION (A)(4) OF THIS SECTION DO NOT  
21 APPLY TO VAPORIZING CANNABIS.

22 36-1103.

23 (A) (1) A PERSON MAY NOT SELL OR DISTRIBUTE A PRODUCT INTENDED  
24 FOR HUMAN CONSUMPTION OR INHALATION THAT CONTAINS MORE THAN 0.5  
25 MILLIGRAMS OF TETRAHYDROCANNABINOL PER SERVING OR 2.5 MILLIGRAMS OF  
26 TETRAHYDROCANNABINOL PER PACKAGE UNLESS THE PERSON IS LICENSED UNDER  
27 § 36-401 OF THIS TITLE AND THE PRODUCT COMPLIES WITH THE:

28 (I) MANUFACTURING STANDARDS ESTABLISHED UNDER §  
29 36-203 OF THIS TITLE;

1 (II) LABORATORY TESTING STANDARDS ESTABLISHED UNDER §  
2 36-203 OF THIS TITLE; AND

3 (III) PACKAGING AND LABELING STANDARDS ESTABLISHED  
4 UNDER § 36-203 OF THIS TITLE.

5 (2) A PERSON MAY NOT SELL OR DISTRIBUTE A PRODUCT DESCRIBED  
6 UNDER PARAGRAPH (1) OF THIS SUBSECTION TO AN INDIVIDUAL UNDER THE AGE OF  
7 21 YEARS.

8 (B) A PERSON MAY NOT SELL OR DISTRIBUTE A CANNABINOID PRODUCT  
9 THAT IS NOT DERIVED FROM NATURALLY OCCURRING BIOLOGICALLY ACTIVE  
10 CHEMICAL CONSTITUENTS.

11 (C) A PERSON WHO VIOLATES SUBSECTION (A) OF THIS SECTION IS GUILTY  
12 OF A MISDEMEANOR AND ON CONVICTION IS SUBJECT TO A FINE NOT EXCEEDING  
13 \$5,000.

14 (D) A PERSON WHO VIOLATES SUBSECTION (B) OF THIS SECTION IS GUILTY  
15 OF A MISDEMEANOR AND ON CONVICTION IS SUBJECT TO A FINE NOT EXCEEDING  
16 \$10,000.

17 SUBTITLE 12. LEGAL PROTECTIONS.

18 36-1201.

19 THE FOLLOWING PERSONS ACTING IN ACCORDANCE WITH THE PROVISIONS  
20 OF THIS TITLE MAY NOT BE SUBJECT TO ARREST, PROSECUTION, REVOCATION OF  
21 MANDATORY SUPERVISION, PAROLE, OR PROBATION, OR ANY CIVIL OR  
22 ADMINISTRATIVE PENALTY, INCLUDING A CIVIL PENALTY OR DISCIPLINARY ACTION  
23 BY A PROFESSIONAL LICENSING BOARD, OR BE DENIED ANY RIGHT OR PRIVILEGE,  
24 FOR THE USE OF OR POSSESSION OF CANNABIS:

25 (1) A QUALIFYING PATIENT;

26 (2) A CANNABIS LICENSEE OR CANNABIS REGISTRANT THAT IS  
27 LICENSED OR REGISTERED UNDER THIS TITLE;

28 (3) A CERTIFYING PROVIDER;

29 (4) A CAREGIVER;

30 (5) AN ACADEMIC RESEARCH REPRESENTATIVE PURCHASING

# **SB516 Charm City Hemp FWA.pdf**

Uploaded by: Randy Shayotovich

Position: FWA

## **SB516 Charm City Hemp FWA**

To whom it may concern,

I am the co owner of Charm City Hemp, opened in 2019 with our first location in Belvedere Square. We now have four Brick and Mortar stores in Maryland along with our website. Please review our fantastic google ratings, thanks to all of our wonderful and loyal customers.

We have established our business as the premier CBD and Hemp Boutique, with our huge selection of products, all safe and third party tested. Our staff has extensive knowledge and helps thousands of customers find alternative solutions for their needs.

Our business model is very successful and generates a huge amount of sales. Our company is in good standing with the state of Maryland, pays Sales Use Tax, Unemployment Insurance etc.

We employ over 20 residents, all paying Income tax.

This would all come to an abrupt end July 1st, if SB516 is passed in its current form. Not only would it be a tremendous financial ramification for me personally, our business and employees, but all of our customers would be devastated as well. Bankruptcy, landlords with empty store fronts, unemployment would be the consequences.

The voters of Maryland have asked for the legalization of recreational adult use, and we support that, but the public does not want to destroy the CBD and hemp industry. Why is there even certain language added in this bill to make almost all of the CBD and Hemp products we sell all of a sudden illegal in Maryland?

Everything we do is currently legal on the Federal level, we are able to accept credit cards, have company bank accounts, insurance.

Just like any other retail store.

Please help to make the amendments described below and in the attachments.

Thanks,  
Randy Shayotovich

**We need your help to save the Maryland Hemp Industry by amending the Cannabis Reform Bill (HB1219/SB516) to change the permissible THC cap for hemp products that can be sold without an adult use license from what's currently in the bill [.5mg per serving and 2.5mg per package] to products**

**with less than 0.3% Delta 9 THC.**

**We would additionally like for hemp products to be regulated and tested within the newly formed Cannabis Regulation and Enforcement Division and for there to be hemp specific licenses that go to those businesses currently growing, processing, and selling these low THC products. The retail license would require that 90% of the sales of the current businesses be from hemp products.**

# **SB516 Charm City Hemp FWA.pdf**

Uploaded by: Randy Shayotovich

Position: FWA

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Randy Shayotovich

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**2023.03.08 - SB516 - A2JC Written Testimony - Cann**

Uploaded by: Reena Shah

Position: FWA

**COMMISSIONERS**

- Ward B. Coe III, Chair**  
Gallagher, Evelius & Jones
- Franklyn Baker**  
United Way of Central MD
- Sarah Bowes**  
Civil Justice, Inc.
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CareFirst BlueCross BlueShield
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- Hon. Samuel I. Rosenberg**  
Maryland House of Delegates
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- Deb Seltzer**  
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- Hon. Cathy Serrette**  
Circuit Court for Prince George's County
- Hon. William C. Smith, Jr.**  
Maryland State Senate
- Matthew Stubenberg**  
Access to Justice Lab  
Harvard Law School
- Shuaa Tajammul**  
Maryland State Bar Assoc. (MSBA)
- Hon. Jeff Waldstreicher**  
Maryland State Senate
- Ronald Weich**  
University of Baltimore School of Law
- Hon. Christopher West**  
Maryland State Senate

**STAFF**

**Reena K. Shah**  
Executive Director

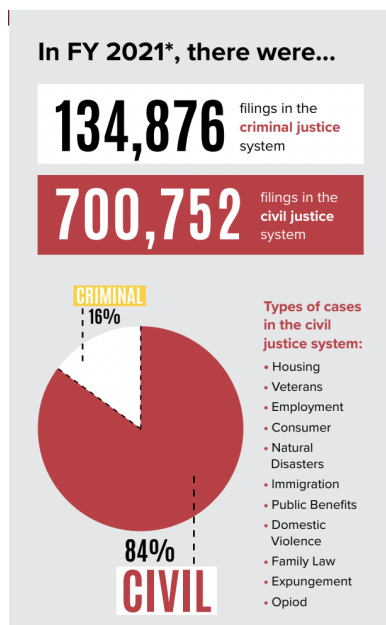
**SB516**  
**Cannabis Reform**

**SUPPORT with AMENDMENT**

The Maryland Access to Justice Commission (A2JC) is an independent entity powered by the Maryland State Bar Association (MSBA). We unite leaders to drive reforms and innovations to make the civil justice system accessible, equitable and fair for all Marylanders. Prominent leaders from different segments of the legal community in Maryland – including the deans of the two law schools, law firm partners, heads of the legal services providers and funders, corporate counsel, academics, legislators, the state bar and judiciary comprise the A2JC.

A2JC has found that one of the most impactful ways to make the civil justice system accessible, equitable and fair for all Marylanders is to ensure that Marylanders who become entangled in the civil justice system have an ability to access civil legal aid and receive the level of legal help they need to resolve their civil legal issue. This help ranges from legal information, brief advice, limited scope representation to full legal representation.

Maryland's civil justice system accounts for approximately 84% of the total number of cases in the state civil and criminal justice systems combined, if we exclude motor vehicle cases. That means that in FY2021, of the 835,628 total cases in District and Circuit Courts in Maryland, over 700,000 were civil legal cases.



Maryland's civil legal aid organizations are the primary resource for ensuring vulnerable populations have equal access to civil justice in the civil justice system. Civil legal aid attorneys provide free civil legal services to low-income individuals throughout the state, and regularly handle a variety of civil matters, including housing disputes, domestic violence cases, immigration issues, expungements, public benefits claims, consumer law, bankruptcies, debt collection matters, and child custody cases. The services civil legal aid attorneys provide are life-changing; without their assistance many people would face

homelessness, lose custody of their children, have to endure domestic violence, face deportation, and be unable to obtain jobs or housing due to criminal records.

### **Access to Civil Legal Aid can Right Many of the Wrongs Caused by Cannabis Enforcement**

Yet, Maryland's civil legal aid community is chronically underfunded. Funding for this important work comes from different sources, including foundation funding, state and local funding and individual donors; however, there is not a line item in our state budget for civil legal aid funding.

As the state considers cannabis reform, it is thus important for the state to consider funding for civil legal aid as a mechanism to right many of the harms that impacted communities most served by civil legal aid.

We support the friendly amendment to dedicate 10% of the cannabis tax revenue to an existing Special Fund administered by the Maryland Legal Services Corporation (MLSC), whose grantees (the civil legal aid providers) provide vital legal services to the residents of communities most impacted by the war on drugs and the disproportionate enforcement of cannabis prohibition.

Investing part of the cannabis tax revenue for this purpose, will serve as an effective anti-poverty strategy and will help with social equity. Studies have shown that civil legal aid provides \$6 of benefit for every \$1 dollar spent. While cannabis may be legal now, tens of thousands of Marylanders still face legal peril because of the cannabis related policies and enforcement. Those harms manifest themselves in civil legal issues such as:

- Higher rates of eviction and/or foreclosure and higher instances of unsafe, unhealthy, and unstable housing
- Predatory lending and illegal consumer practices that drain intergenerational wealth
- Disproportionate school discipline fueling the school-to-prison pipeline
- Complex family law issues, including child custody and increased state involvement
- Expungement assistance<sup>556</sup>
- Wage theft
- Need to access basic services and supports like unemployment insurance, social security benefits, veterans' benefits and food stamps

Research shows that the provision of legal services not only helps an individual with their legal case, it leads to more long-term solutions and helps to address systemic social ills. Expungement assistance alone, while important, doesn't fix all the missed economic, educational, wealth-building, and social opportunities of a criminal record. Nor does it address the legal issues and harms residents of disinvested communities face.

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The Maryland Access to Justice Commission is an independent entity and does not endorse or oppose any political party or candidate for elected office.

Funding for legal services is essential to assure that there are legal advocates available and ready to provide critical legal help.

**Maryland Access to Justice Commission Urges Support of SB516 with Amendment**

For the reasons stated, the Maryland Access to Justice Commission requests the Senate Finance Committee to issue a FAVORABLE with AMENDMENT report SB516. For more information, please contact Reena K. Shah, Executive Director of the Maryland Access to Justice Commission, at [reena@msba.org](mailto:reena@msba.org).

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The Maryland Access to Justice Commission is an independent entity and does not endorse or oppose any political party or candidate for elected office.

**SB516\_CBD Apothecary\_FWA.pdf**

Uploaded by: Richard Parker

Position: FWA

March 9, 2023

CBD Apothecary SB 516 Testimony

Good afternoon, Madam Chair, Madam Vice-Chair, esteemed members of the Committee,

My name is Richard Parker. I am the owner of CBD Apothecary – CBD wellness stores that specialize in products that people use for neck, back and joint pain relief, nausea, sleep aids, and depression. I own four stores spanning Districts 40 and 41 in Baltimore City and Districts 42A and 44B in Baltimore County. I served honorably for 22 years in the United States Army and, prior to opening CBD Apothecary, I served as the state deputy director of the union AFSCME. I got into the CBD business after an army buddy and I stopped past our favorite Ravens store two years ago to purchase some gear for the upcoming season. Part of the space had been converted to a CBD store. My buddy, after inquiring about what CBD was, very skeptically tried some on his knee. After about 15 minutes of walking around the store, he nudged me and said, "This is crazy but knee really feels better!" He followed up the next day after returning home to Virginia to say that he was still feeling relief. Understanding what this application could do for any number of our fellow veterans, we got into business together. Since that time, we've been able to make believers out of the most cynical of people including my very religious mom who, after a great deal of education and trial, now not only has another reason to call me daily, but also has brought along many of the sisters from her church.

I will tell you that opening a CBD store has not been just a personal journey but one that has drawn in a network of other small business owners, athletes, and members of the community. Being from Baltimore City, I have made a very conscious effort to employ young people from the city – people whose lack of education, experience and troubled backgrounds have made it difficult for them to find employment. I have taken these same folks, who have been crucial to my success, and paid for CDL training, Early Childhood Education training and startup costs to own and operate their own businesses. None of my employees make less than \$20 an hour and I am a regular sponsor of youth sports in the communities where I am located.

So what brings me here today are two provisions in SB 516, Sections 36-1103 (A)(1) & (B) that would not only cause irreparable harm to local, small business CBD store owners but also the local supply chain that provides all of the equipment and products necessary to operate a CBD store. To be even more frank, with these provisions included, it would put me and my employees out of business on July 1. Even if all

current retailers were able to apply for and receive an adult-use license, they would still be out of business between the time the bill goes into effect on July 1 and when the first round of licenses are awarded in January 2024. And, even then, there is still no guarantee that any current retailer will in fact receive a dispensary license.

My ask is that any amendment surrounding a cap of Delta-9 THC be made to be in compliance with federal regulation. It does not stand reason that scientifically less potent CBD products be banned or made available only through Adult-Use licensees at a time when we are relaxing restrictions on more potent Adult-use cannabis while also giving those already very profitable Adult-use licensees an even greater monopoly over the market.

Let me close by emphasizing, local, small business, CBD retailers and others are not asking for a hand-out or a free pass. Quite the contrary. The responsible ones of us who care about our communities would like to see the consumable hemp industry (CBD) regulated by the Cannabis Regulation and Enforcement Division established in SB516. We have language ready to go. We are trying to regulate hemp products that are non-intoxicating and significantly less intoxicating than adult-use cannabis. We agree that the public should be kept safe through testing and regulation and believe that incorporating this industry into the new regulatory body is the best path forward. I ask that when you move forward in your deliberations that you not only consider the destructive nature of these provisions to local small business owners and our local suppliers, but also our employees, members of our community who find relief in our non-addictive products....and, most importantly, consider Geraldine Parker in hopes that those daily calls might find themselves being bi-weekly.

I thank you for your time and for the Herculean and masterful effort you and your colleagues have put into getting this legislation right for the citizens of Maryland. Thank you.

**SB 516.pdf**

Uploaded by: Robert Davis

Position: FWA



Good afternoon my name is Robert Davis R.Ph owner of OC botanicals LLC doing business as hi-tide dispensary licensed under the Department of Health in Maryland.

The proposed bill SB 516 has many overwhelming flaws that will be extremely detrimental to the Maryland cannabis industry and the citizens of Maryland, if major changes are not addressed. I will lay out my top five concerns. Many of the issues that have been created by SB 516 are very similar to the mistakes that were made in multiple other states such as California, Oregon, New York etc. addressing these issues properly will ensure a robust Maryland cannabis industry and protect the public safety and welfare from the gray market moving in with illegal marijuana products thus endangering public safety.

1. The quantity of licenses that will be made active per bill SB 516 will be devastating to the current and future legal Maryland cannabis licensees. Currently there are approximately 15 grows, 20 processors and 90 dispensaries operating in the state of Maryland. All of the current licensees operating are struggling to stay in business today. The regulatory burdens along with federal 280 E taxation makes operating in this industry extremely difficult. Even with an uptick in potential business with the adult use market coming online there is no way the proposed 950 total licenses will be able to operate profitably which would cause a collapse of the entire Maryland industry allowing for only the black and gray market to move in and operate spreading their illegal marijuana across the state, as licensed entities will not be able to operate profitably. An example would be what's happening in California and New York where illegal non licensed persons are renting strip malls setting them up as shops selling illegal un regulated marijuana to the public with no recourse as the decriminalization makes police enforcement unavailable. Just Google any information on this as it is rampant in many states that did not take precautions to avoid this type of collapse. The issuance of too many licenses in every marketplace prior in the United States has led to devastating outcomes such as Colorado, California, Oregon, New York ETC. I'm sure the committee will have many people testify that the profitability today is in jeopardy let alone adding this extreme amount of licensees to an already struggling market.
2. The new licensee class of micro dispensary, Has no constraints or guidance of how they can operate, where they can operate and in what conditions they can operate. There needs to be very specific conditions under how those micro dispensaries can and will operate. I don't believe anybody wants to see ice cream truck style delivery to the citizens of Maryland. All new licensees need to have specific regulations overseeing their operation and restrictions. For instance, each new licensee should be only be allowed to operate within a specified senatorial district or districts, if these new licensees are allowed to congregate and focus in a few senatorial districts and or cities it will be devastating to the citizens living in those districts and on the businesses trying to operate legal legitimate cannabis businesses in those areas. All new licensees should be issued senatorial districts of operation as that was a great success in the rollout of the medical cannabis program and evenly distributed the licensees throughout the state based on capitation of their citizens.

3. All dispensaries that are licensed **standard and micro dispensaries should be allowed to do delivery to their patient and adult use customers**. It specifically states micro dispensaries are delivery only. I want to ensure that there is no intention of stopping standard licenses from being able to do delivery to their patients and adult use customers. Delivery to our clients will continue to be very important and all customers and patients within the state should have their choice of how they receive their medicine and products from a dispensary that they are familiar with and that they trust.
  
4. The conversion Fee proposed to convert a license from medical to adult use is completely out of line and is punitive. The arbitrary and ridiculous figures of 250,000 up to \$2 million is completely ridiculous. All licensees currently are struggling to keep their employees payroll met and stay in business as all are struggling with the downturn in the market place. Not only is the amount intolerable but then giving only five months to try to figure out how to budget this insane amount of capital to be handed over will probably put most licensees out of business and will be forced to sell to out-of-state operators with deep pockets. Speaking for myself, I am one of the last independent operators in the state who actually lives in the state of Maryland and raises my family. I have lived in Maryland for almost 24 years and legislation like this will force me to sell my business to a multistate operator (MSO) with deep investor pockets, thus taking the money out-of-state to wherever that corporation is located. If the intent is to force the last independent licensed cannabis operators out of business this type of legislation will do that.
  
5. My business OC botanicals LLC has been operating in the state of Maryland for five years. I have been running this business since day one as I am also the person who wrote the application for licensure. We have no blemishes on our record from the MMCC through all the years of inspections. I have been a pharmacist for over 30 years and also serve as the Clinical Director at my Dispensary store. The legislation states that if I'm able to afford and convert my license, that I will not be able to sell my dispensary for an additional five years. This makes absolutely no sense. Myself and my business should not be put under any constraint in this manner as I've been running a flawless business for the past five years, serving my patients and the community with their healthcare needs. My family personally has been experiencing health issues and it should not be up to the state legislature to determine my families forced work environment. There should be no constraints as I've already run a flawless business under extremely difficult times for the past five years. New Licensees should have restrictions for sale so they don't sell and flip their license but persons that have been in business already for 5 years have earned their time in business.

Sincerely,

*Robert H Davis R. Ph*

OC Botanicals LLC  
Owner / Clinical Director

# **SB 516\_Cannabis Reform\_EMS Board\_Support with Amen**

Uploaded by: Robert Phillips

Position: FWA



*State of Maryland*  
**Maryland Institute for Emergency Medical Services Systems**

Wes Moore  
Governor

Clay B. Stamp  
Chairman, EMS Board

Theodore R. Delbridge, MD, MPH  
Executive Director

## **Senate Bill 516 Cannabis Reform**

### **State EMS Board Position: Support with Amendments**

**Bill Summary:** Among other things, SB 516 sets up the framework to oversee the regulation of adult-use cannabis and establishes a licensing framework and graduated sales and use tax for the regulated sale of cannabis in Maryland.

#### **Rationale:**

- The implementation of cannabis reform in Maryland will likely impact public health and public safety. As many as 57 million instances of driving under the Influence of Cannabis are projected in Maryland each year, as well as other negative health outcomes for individuals, e.g., cannabis-induced suicidal ideations and psychotic or paranoid feelings<sup>1</sup>. In states where cannabis was legalized coupled with retail sales, the Insurance Institute for Highway Safety found that the rate of car crashes increased by nearly 6% and fatal car crashes increased by 4%, although changes in crash rates varied by state<sup>2</sup>.
- There is a clear nexus between the projected increase in adult use of cannabis and potential use of Maryland's emergency medical services (EMS) system.
- Certain components of the State's EMS system are supported by Maryland EMS Operations Fund (MEMSOF)<sup>3</sup>:
  - Maryland State Police Aviation Command
  - Maryland Fire & Rescue Institute of the University of MD
  - R Adams Cowley Shock Trauma Center
  - Maryland Institute for EMS Systems (MIEMSS)
  - The Senator Amoss Fire, Rescue and Ambulance Fund that provides monies for the purchase of fire and rescue equipment and capital building improvements.
- The Department of Legislative Services DLS has projected MEMSOF insolvency in FY24<sup>4</sup>. MEMSOF is currently supported by a \$29 biennial vehicle registration fee surcharge that has needed to be increased every 10 years since it is not sensitive to inflation. The last increase was in 2013.
- The amendment will permit a portion of the sales and tax revenues associated with the adult-use cannabis program should be used to support the Maryland EMS System funded through the MEMSOF.

### **State EMS Board Supports SB 516 with Amendments and Asks for a Favorable Report**

<sup>1</sup> Cannabis Public Policy Consulting. Future Adult Use Cannabis Demand & Predictive Modeling – A behavioral Economic Study. January 5, 2023. See: [https://dlslibrary.state.md.us/publications/Exec/MDH/NMLMCC/HG13-4401\(b\)\\_2022\(d\).pdf](https://dlslibrary.state.md.us/publications/Exec/MDH/NMLMCC/HG13-4401(b)_2022(d).pdf)

<sup>2</sup> Farmer CM, Monfort SS, Woods AN. Changes in Traffic Crash Rates after Legalization of Marijuana: Results by Crash Severity. J Stud Alcohol Drugs 2022 Jul; 83(4): 494-501.

<sup>3</sup> § 13-955 Transp. Art., MD Code Ann.

<sup>4</sup> See: [2024FY - Operating Budget Analysis - MEMSOF\\* - Maryland Emergency Medical System Operations Fund](#)

AMENDMENTS TO SENATE BILL 516

(First Reading File Bill)

On page 4, following line 11, insert new paragraph

“BY ADDING TO  
ARTICLE – TRANSPORTATION  
SECTION 19-355  
ANNOTATED CODE OF MARYLAND  
(2020 REPLACEMENT VOLUME AND 2022 SUPPLEMENT)”.

On page 80, following line 19, insert new paragraph

“(5) 1.0% TO THE MARYLAND EMERGENCY MEDICAL SYSTEM OPERATIONS FUND  
ESTABLISHED UNDER § 13-955 OF THE TRANSPORTATION ARTICLE;”.

On page 85, following line 27, insert

**“Article – Transportation  
13-955.**

(a) In this section, “Fund” means the Maryland Emergency Medical System Operations Fund.

(b) (1) There is a Maryland Emergency Medical System Operations Fund.

(2) The Comptroller shall administer the Fund, including accounting for all transactions and performing year-end reconciliation.

(3) The Fund is a continuing, nonlapsing fund which is not subject to § 7–302 of the State Finance and Procurement Article.

(4) Interest and earnings on the Fund shall be separately accounted for and credited to the Fund, and are not subject to § 6–226(a) of the State Finance and Procurement Article.

(c) The Fund consists of:

(1) Registration surcharges collected under § 13–954 of this subtitle;

(2) All funds, including charges for accident scene transports and interhospital transfers of patients, generated by an entity specified in subsection (e) of this section that is a unit of State government; and

(3) Revenues distributed to the Fund from the surcharges collected under § 7–301(f) of the Courts Article; AND

(4) REVENUES DISTRUBUTED TO THE FUND UNDER § 2-1302.2(5) OF THE TAX – GENERAL  
ARTICLE.

(d) Expenditures from the Fund shall be made pursuant to an appropriation approved by the General Assembly in the annual State budget or by the budget amendment procedure provided under § 7–209 of the State Finance and Procurement Article, provided that any budget amendment shall be submitted to and approved by the Legislative Policy Committee prior to the expenditure or obligation of funds.

(e) The money in the Fund shall be used solely for:

(1) Medically oriented functions of the Department of State Police, Special Operations Bureau, Aviation Division;

(2) The Maryland Institute for Emergency Medical Services Systems;

(3) The R Adams Cowley Shock Trauma Center at the University of Maryland Medical System;

(4) The Maryland Fire and Rescue Institute;

(5) The provision of grants under the Senator William H. Amoss Fire, Rescue, and Ambulance Fund in accordance with the provisions of Title 8, Subtitle 1 of the Public Safety Article; and

(6) The Volunteer Company Assistance Fund in accordance with the provisions of Title 8, Subtitle 2 of the Public Safety Article.”.

# **SB 516\_Cannabis Reform\_MIEMSS\_Support with Amendme**

Uploaded by: Robert Phillips

Position: FWA



*State of Maryland*  
**Maryland Institute for Emergency Medical Services Systems**

Wes Moore  
Governor

Clay B. Stamp  
Chairman, EMS Board

Theodore R. Delbridge, MD, MPH  
Executive Director

## **Senate Bill 516 Cannabis Reform**

### **MIEMSS Position: Support with Amendments**

**Bill Summary:** Among other things, SB 516 sets up the framework to oversee the regulation of adult-use cannabis and establishes a licensing framework and graduated sales and use tax for the regulated sale of cannabis in Maryland.

### **Rationale:**

- The implementation of cannabis reform in Maryland will likely impact public health and public safety. As many as 57 million instances of driving under the Influence of Cannabis are projected in Maryland each year, as well as other negative health outcomes for individuals, e.g., cannabis-induced suicidal ideations and psychotic or paranoid feelings<sup>1</sup>. In states where cannabis was legalized coupled with retail sales, the Insurance Institute for Highway Safety found that the rate of car crashes increased by nearly 6% and fatal car crashes increased by 4%, although changes in crash rates varied by state<sup>2</sup>.
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- Certain components of the State's EMS system are supported by Maryland EMS Operations Fund (MEMSOF)<sup>3</sup>:
  - Maryland State Police Aviation Command
  - Maryland Fire & Rescue Institute of the University of MD
  - R Adams Cowley Shock Trauma Center
  - Maryland Institute for EMS Systems (MIEMSS)
  - The Senator Amoss Fire, Rescue and Ambulance Fund that provides monies for the purchase of fire and rescue equipment and capital building improvements.
- Department of Legislative Services DLS has projected MEMSOF insolvency in FY24<sup>4</sup>. MEMSOF is currently supported by a \$29 biennial vehicle registration fee surcharge that has needed to be increased every 10 years since it is not sensitive to inflation. The last increase was in 2013.
- MIEMSS' amendment will permit a portion of the sales and tax revenues associated with the adult-use cannabis program should be used to support the Maryland EMS System funded through the MEMSOF.

### **MIEMSS Supports SB 516 with Amendments and Asks for a Favorable Report**

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<sup>1</sup> Cannabis Public Policy Consulting. Future Adult Use Cannabis Demand & Predictive Modeling – A behavioral Economic Study. January 5, 2023. See: [https://dlslibrary.state.md.us/publications/Exec/MDH/NMLMCC/HG13-4401\(b\)\\_2022\(d\).pdf](https://dlslibrary.state.md.us/publications/Exec/MDH/NMLMCC/HG13-4401(b)_2022(d).pdf)

<sup>2</sup> Farmer CM, Monfort SS, Woods AN. Changes in Traffic Crash Rates after Legalization of Marijuana: Results by Crash Severity. J Stud Alcohol Drugs 2022 Jul; 83(4); 494-501.

<sup>3</sup> § 13-955 Transp. Art., MD Code Ann.

<sup>4</sup> See: [2024FY - Operating Budget Analysis - MEMSOF\\* - Maryland Emergency Medical System Operations Fund](#)

AMENDMENTS TO SENATE BILL 516

(First Reading File Bill)

On page 4, following line 11, insert new paragraph

“BY ADDING TO

ARTICLE – TRANSPORTATION

SECTION 19-355

ANNOTATED CODE OF MARYLAND

(2020 REPLACEMENT VOLUME AND 2022 SUPPLEMENT)”.

On page 80, following line 19, insert new paragraph

“(5) 1.0% TO THE MARYLAND EMERGENCY MEDICAL SYSTEM OPERATIONS FUND ESTABLISHED UNDER § 13-955 OF THE TRANSPORTATION ARTICLE;”.

On page 85, following line 27, insert

**“Article – Transportation**

13-955.

(a) In this section, “Fund” means the Maryland Emergency Medical System Operations Fund.

(b) (1) There is a Maryland Emergency Medical System Operations Fund.

(2) The Comptroller shall administer the Fund, including accounting for all transactions and performing year-end reconciliation.

(3) The Fund is a continuing, nonlapsing fund which is not subject to § 7–302 of the State Finance and Procurement Article.

(4) Interest and earnings on the Fund shall be separately accounted for and credited to the Fund, and are not subject to § 6–226(a) of the State Finance and Procurement Article.

(c) The Fund consists of:

(1) Registration surcharges collected under § 13–954 of this subtitle;

(2) All funds, including charges for accident scene transports and interhospital transfers of patients, generated by an entity specified in subsection (e) of this section that is a unit of State government; and

(3) Revenues distributed to the Fund from the surcharges collected under § 7–301(f) of the Courts Article; AND

(4) REVENUES DISTRUBUTED TO THE FUND UNDER § 2-1302.2(5) OF THE TAX – GENERAL ARTICLE.

(d) Expenditures from the Fund shall be made pursuant to an appropriation approved by the General Assembly in the annual State budget or by the budget amendment procedure provided under § 7–209 of the State Finance and Procurement Article, provided that any budget amendment shall be submitted to and approved by the Legislative Policy Committee prior to the expenditure or obligation of funds.

(e) The money in the Fund shall be used solely for:

(1) Medically oriented functions of the Department of State Police, Special Operations Bureau, Aviation Division;

(2) The Maryland Institute for Emergency Medical Services Systems;

(3) The R Adams Cowley Shock Trauma Center at the University of Maryland Medical System;

(4) The Maryland Fire and Rescue Institute;

(5) The provision of grants under the Senator William H. Amoss Fire, Rescue, and Ambulance Fund in accordance with the provisions of Title 8, Subtitle 1 of the Public Safety Article; and

(6) The Volunteer Company Assistance Fund in accordance with the provisions of Title 8, Subtitle 2 of the Public Safety Article.”.



**SB516 testimony.pdf**

Uploaded by: Robert Phillips

Position: FWA

# MARYLAND STATE FIREFIGHTER'S ASSOCIATION

REPRESENTING THE VOLUNTEER FIRE, RESCUE, AND EMS PERSONNEL OF MARYLAND.



**Robert P. Phillips**

Chair

Legislative Committee

17 State Circle

Annapolis, MD 21401

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## SB 516: Cannabis Reform

My name is Robert Phillips and I am the Legislative Committee Chair for the Maryland State Firefighters Association (MSFA)

**I wish to present testimony in favor with amendments of Senate Bill 516: Cannabis Reform**

The MSFA is in favor of finding a continuous funding source for the MEMSOF fund. The funding source needs to reflect the yearly increases in operational cost and inflation such that we do not find ourselves in the same predicament again in the coming years.

This MEMSOF provides monies to MFRI, MIEMSS, MSFA, MSPAC and Shock Trauma which allows them to provide their individual unique skills. The fund covers all aspects of field care once a call is received by a 911 call center and dispatched. From the arrival of Fire/EMS units to land or air transport of a patient, to the services provided by our Shock Trauma center this fund touches everything.

The partners sharing the fund have been coming before you every so many years asking for an increase in funding. The 2024 Budget Overview shows over a five-year period expenses going up 15 million dollars while present revenue goes up approximately 5 million. What we would like to see is an amendment where the cannabis reform bill provides funding for the MEMSOF fund.

The MSFA asks that the bill be amended as recommended by MIEMSS (attached document) to allow for additional MEMSOF funding.

I thank the committee for their time and attention to this important bill and ask that you vote favorable with amendments on Senate Bill 516.

I will be glad to answer any questions, as my contact information is listed above and welcome any further inquiries you might have.

# **Mystory.pdf**

Uploaded by: Rusty Carr

Position: FWA

Greetings. My name is Rusty Carr. I live in Mount Airy, MD in legislative district 4. I'm 65 years old, retired, a medical patient since 2018 and a caregiver. This is my cannabis story.

I smoked cannabis occasionally in high school and became a daily smoker in college where I obtained a degree in Engineering Economic Systems. I returned to occasional use after graduation and quit at age 25 due to the hassles of cannabis being illegal conflicting with a professional career in the Information Technology industry.

As an active skier, my knees suffered a lot of wear. After quitting cannabis, I began to experience chronic knee pain. I was on 800mg Motrin for years until I tried cortisone and then surgery. Surgery provided major relief, but the pain is always there and getting worse. Although I have a high tolerance for pain, there are secondary effects like loss of sleep. I also experience frequent muscle spasms at night and chronic muscle tension. I'm generally in good health, but I'm old enough for wear and tear.

In addition to my Information Technology career, I also taught skiing and snowboarding part time. After 21 years of teaching at the local resort Whitetail, I was given a random drug test. Because this test would have resulted in my termination had I used cannabis days prior to the test and regardless of whether I was impaired on the job, I quit. I pissed. I passed. Then I quit. We should not allow random testing for metabolites. I spent more money than I made at that job. Not everyone can afford to quit on principle. No one should have to.

After 30+ years of abstinence and 6 months of retirement I restarted cannabis consumption in Jan 2018 after California legalized recreational use. I tried an edible while visiting there and experienced the most intense body relief I've ever felt. That was worth trying to repeat at home. My personal physician knows about my high pain tolerance. When I asked him to certify me for chronic pain, he thought I was joking. I told him I didn't need it for pain, that I intended to use it recreationally, but I also wanted to duplicate that earlier experience in California. So I received my Maryland medical card in May 2018 as a retirement present.

Cannabis began to change my life. I began to reliably get restful sleep. I lost weight. I drink a lot less alcohol. Strangely enough, it has lowered my pain tolerance, but it also has greatly reduced the tiredness that I experience from pain (damage from inflammation). Although cannabis can immediately relieve some problems, for my chronic pain the main benefit is relief from the symptoms of pain (e.g. inflammation). Cannabis has replaced the use of anti-inflammatory OTC like Naproxen Sodium. I've been a daily user since 2019. I use different strains, dosing, and consumption methods to achieve different goals. The Maryland requirement for testing terpenes has been a boon because I am able to understand what terpenes and levels of terpenes cause what effects. This makes it very easy to select new strains of cannabis flower to achieve desired effects.

In 2019, my mother's doctor stopped her Fentanyl patch prescription due to the opioid crisis. She has scoliosis. At one point her spine was so curved she had lost 6 inches of height. She'd been on the patch for years achieving relief without problems, but they cut her off because of "opioid policy". After trying several non-opioid pain medicines with no success, her doctors told her that her only options for relief were chiropractic and acupuncture treatments because no medical treatment options were available.

At that point we started having the "worth it" discussions. I talked her into trying cannabis. She couldn't smoke because she has COPD and she did not want to get high. I had to walk her through signing up and

go with her to the dispensary to translate from dispensary-ese to senior-ese. We tried RSO oil, tinctures and topicals without much success. Meanwhile her condition worsened. We tried again a few months later with CBD/THC tinctures. Those worked for months, but the CBD aggravated hiatal hernia problems. After finding and consulting with Dr. Frye, we were able to find a THC tincture formula that works.

My mom is now 91 and doing well, but dosing is still a moving target as we continue to experiment with various dosing combinations of cannabinoids for various ailments. I took the prospect of taking my mother's life into my untrained hands seriously. I knew cannabis could help, but I had to be sure. I did a ton of research. I went to the leaders of the medical cannabis community, a group called Patients Out of Time and started attending their seminars accredited for medical continuing education training. There's an annual cannabis science conference in Baltimore. I found Dr. Frye through her book "The Medical Marijuana Handbook. Now, just keeping up with the science is a part time job. As a caregiver, I've also had to learn old time pharmacy skills for making tinctures and baking skills for making edibles. As a caregiver I'm worried that my patient won't have access to her medicine if she needs to go into the hospital because her health care provider (Kaiser Permanente) does not recognize cannabis as medicine, per federal guidelines. But I found out that they can prescribe Dronabinol in the hospital. It's taken me years to get here and there have many hurdles to progress. These kinds of issues led me to cannabis activism. And now we at least have a bill for that.

I don't know if making cannabis legal at the state level will force Kaiser Permanente let my mom have her medicine, but it's a necessary step. Civics class says to get involved. So, I'm here trying to make legalization happen and I feel like "that guy" from the Die Hard movie. Maybe my perspective is unique, but there seems to be some obvious things that aren't being addressed. Somebody has to say something.

Part of doing my homework led me to the Reddit forum for Maryland Medical Cannabis patients (r/MDEnts). I'm into my third year of reporting on Maryland cannabis legislation and have developed a following among the 20,000 registered members of the sub forum. This social media platform also reports the ground level truth of what is happening from the patient and industry workers perspectives. In legislative parlance, they are the organization I represent. We just don't have any letterhead. I am here to be a voice for the cannabis community.

Part of doing my homework to help my mother was learning how to make my own concentrates, edibles and tinctures. As part of this learning process I purchased devices that might be considered illegal, but they are just basically specialized versions of common kitchen appliances that improve safety and reduce labor. Do you really need to lock me up for this? I've also had one rookie season of home grow as a protest for the season we should have had. It's surprisingly therapeutic.

That's part of my cannabis past. I want my cannabis future to include cultivation. I have a one-acre property located in an area that had a history of cannabis cultivation in the 1800s. I'd like to experiment growing cannabis (hemp) for fiber and soil remediation, but I'd consider running a charitable outdoor craft grow for veterans given the right regulatory conditions. But I have a problem living in hilly Mount Airy. I could make 15,000 grow space on my property that would allow cannabis to not be visible, but my neighbors would object to the screening far more than the sight of the cannabis. I don't expect that problem to be solved, but it doesn't hurt to ask. I'm ready to home grow for personal use (both to cut cost and to get the best quality medicine tailored for my needs) and sharing with friends, neighbors and

veterans. And it would be nice if it was a tad easier to keep my mom alive for a few more years. That's my cannabis story. Let's make our green future successful! We can do better.

**SB0516\_fwa\_information.pdf**

Uploaded by: Rusty Carr

Position: FWA

SB516 Favorable with Amendments  
Warren (Rusty) Carr  
4391 Moleton Drive  
Mount Airy, MD 21771

This attachment has supporting information that contains my observations of how SB516 rates as a model cannabis legalization bill.

This model is not a comprehensive approach to the legalization of marijuana. This bill is primarily intended to facilitate the newly legal adult use of cannabis with a legal means to purchase cannabis. This bill does not repeal the prohibition of cannabis. The prohibition of cannabis has woven itself so deeply into the fabric of Maryland law that there are currently 6 other cross filed cannabis bills in front of the General Assembly and that only scratches the surface.

This model is a good model of what results when prohibition just retreats instead of surrendering. If the goal is stop arresting people for cannabis, why just move the goal posts? Raising the limits by the minimum is not changing the game. We should be playing an entirely different game. The War on Drugs is over. The people have spoken. Civil rights in this bill have only been partially addressed. This bill is mostly just a model for handling retail sales of cannabis and the design of this model ignores the testimony that Joe Bryce gave this body two years ago: look at the whole picture.

A model bill true to the history of the Free State would first acknowledge that the prohibition of cannabis was a successful con when it was first enacted in Maryland in 1935 and that the placement of cannabis on the Schedule 1 list in 1972 (after the Federal law prohibiting cannabis was ruled unconstitutional) was based on a lie (as confessed to by John Ehrlichman) intended to persecute minorities. Prohibition has succeeded in that goal spectacularly.

A model cannabis legalization bill would start by being a comprehensive repeal of prohibition instead of just legalization. It would not only be a comprehensive approach legislatively (systematically removing all aspects of prohibition from Maryland policy and law), it would also have support from everyone. It would be a whole of government approach including all branches of the criminal justice system (instead of against), all departments (including agriculture), all levels of government (including a slot for Federal legalization) and the minority political party. It would also be a whole of community approach, including many different types of communities ranging from the cannabis community to AAA to AARP to HBCUs. Finally, a model cannabis legalization bill would be an all of cannabis bill. The distinction between hemp and cannabis is completely arbitrary and scientific nonsense. When the law does not reflect reality, it is doomed to fail.

A model cannabis bill would systematically address the disparity in fines between alcohol, tobacco, legally prescribed narcotics, and cannabis so that we treat the underlying issues of nuisance, behavior in front of children, or danger to public health equitably. A model bill would be a unified statement from the criminal justice system that there will no longer be any searches for contraband (with or without knocks) and there will be no more arrests for possessing contraband. A model bill would release all prisoners of the drug war, especially the traffickers. Because the War on Drugs was corrupt.



A model bill would acknowledge the scientific advances in the last 30 years that have identified the Endocannabinoid System and its fundamental role in biology for all animals, not just humans. We've discovered something fundamental about how we work and it is time to spread the word whether one chooses to use cannabis or not. This is fundamental "how the world works" continuing education that everyone should get, or at least be offered. The truth about cannabis has been actively suppressed for the last 90 years. There is a lot of public education that needs to be done. A model bill would have a vision for how those conversations are going to take place and the funding to back it up. We have not even agreed on what to say about why we are doing this. Two years ago the question was asked "What will we tell our kids? If it's legal does that mean it is safe?". The simple answer to that question is that cannabis is medicine. It is not safe if you don't treat it that way. Water is not safe either. A model bill would comprehensively address how to safely use cannabis including discussions of dosing, substituting cannabis for opioid and over the counter drug use and how to secure cannabis products from children and pets.

We can not foretell what the outcome of this bill will be because all major decisions are being punted to chance or administrative decision. Take cultivation for example. The ATC could award the 20 standard licenses in the first round at up to 300,000 square feet of canopy space each or they could choose to issue 1 license for 10,000 square feet, or the lottery process could choose. The only guidance they have by statute is the intent to preserve the quantity of licenses available to be used in the future. Under this bill it is possible that I would never be allowed to apply for cannabis cultivation license because I am white and do not live in a disadvantaged area.

If you want a model bill, the cannabis community is willing to try again next year, starting on May 1. We're here to help if you will listen. We can be a model for the rest of the nation. We can do better.

Thank you,  
Rusty Carr

**SB516\_fwa.pdf**

Uploaded by: Rusty Carr

Position: FWA

SB516 Favorable with Amendments  
Warren (Rusty) Carr  
4391 Moletton Drive  
Mount Airy, MD 21771

I support SB516 with the following amendments.

Amendment 1: Affordability

The ATC should consider affordability as a criteria for awarding cultivation licenses. A target price for affordability could be defined by statute in relation to the 2022 average price reported by MMCC. On page 39, title 36-402 A) IT IS THE INTENT OF THE GENERAL ASSEMBLY TO PRESERVE PRODUCTION AVAILABILITY FOR NEW ADULT-USE CANNABIS CULTIVATION LICENSES ISSUED UNDER THIS SUBTITLE.

Amend to read

A) IT IS THE INTENT OF THE GENERAL ASSEMBLY TO PRESERVE PRODUCTION AVAILABILITY FOR NEW ADULT-USE CANNABIS CULTIVATION LICENSES ISSUED UNDER THIS SUBTITLE while licensing enough canopy capacity to balance the need for affordable market prices against the health of the industry.

Amendment 2: Dispensary conversion assistance

The dispensaries most harmed by the inequities in the design of the medical market are the ones least likely to have the cash to pay for the conversion fee. It is in the best interest of the public to have all current medical dispensaries convert to a standard license. This bill should have a provision to ensure that all dispensaries are able to convert. Support House amendment 6.

Amendment 3: Don't run out of medicine

BEGINNING JULY 1, 2023, A CANNABIS LICENSEE THAT IS OPERATING A DISPENSARY SHALL: (1) ENSURE THAT IT HAS ADEQUATE SUPPLY FOR QUALIFYING PATIENTS AND CAREGIVERS; AND (2) SET ASIDE OPERATING HOURS TO SERVE ONLY QUALIFYING PATIENTS AND CAREGIVERS.

This amendment requests that the operating hours condition be temporary for a period of 6 months. Further a detailed industry wide plan needs to be developed to ensure adequate supplies. Also regulators need to have temporary discretion to wave regulations to assist with resolving critical shortages. Finally, delay sales to out of state residents for 6 months. For HB1172 MMCC requested reciprocal sales to out of state medical patients be delayed until 2024 in order to not run out of cannabis. Why should out of state recreational purchasers have priority over out of state medical patients?

Amendment 4: Digital access to COAs

(Page 28) Title 36-203 (A) 2) v) 4) assigns responsibility for developing cannabis regulations to the ATC.

PACKAGING AND LABELING OF CANNABIS AND CANNABIS PRODUCTS, INCLUDING CHILD-RESISTANT PACKAGING;

Current packaging requirements require the terpene content of cannabis product to be printed on the labels. This information is not required for product safety reasons. It is extremely valuable for purchasing decisions, but it is impractical to make purchasing decisions at the dispensary counter. This information is often not available or incorrect on online menus due to the fact that the data must be reentered. This amendment requests adding a requirement for the ATC to develop regulations requiring a digital COA to be incorporated into packaging and online menus so that terpene information is available and accurate at the point where purchasing decisions are made.

PACKAGING AND LABELING OF CANNABIS AND CANNABIS PRODUCTS, INCLUDING CHILD-RESISTANT PACKAGING and digital COA access to the public and online menus;

Amendment 5: Don't ban public use

On page 68, title 36-1102 says

(A) THIS TITLE MAY NOT BE CONSTRUED TO AUTHORIZE AN INDIVIDUAL TO:

(1) ....

(2) USE CANNABIS IN A PUBLIC PLACE;

If this title does not authorize an individual to use cannabis in a public place, what does this line authorize? It appears to authorize local jurisdictions to ban all forms of public use, including topical use and consumption prior to entering a public place. This amendment requests that 36-1102 A) (2) be struck and 36-1102 A) (3) be amended to read USE CANNABIS IN A MOTOR VEHICLE on a public roadway;

Amendment 6: End the medical allotment system

This bill does not specify any sales limits for retail sales, nor tracking of retail purchases. Presumably, this means that medical patients can exceed their 30 day allotment by purchasing retail and paying tax. Unless there are limits on sales more restrictive than the personal limit, the medical allotment system no longer functions as a limit on what patients can purchase. Currently, the only sales limits that the allotment system effectively imposes upon medical patients are via outages and errors. How many accounts go negative every day? Shouldn't that be impossible? There are patients with allotments >500 grams/30 days compared to the standard 120 grams. A 1.5 oz/purchase limit is 42.5 grams. What is the purpose of a rolling 30 day limit of 120 grams when you can purchase that much in 3 visits? When an allotment increase is readily available to anyone, price is a more effective limit on the amount purchased and diversion from the medical program is not economically practical at scale when one purchases at retail. Ask yourself how the math works at \$8 gram at 300 grams per month. Make the purchase limit 120 grams per purchase for all medical patients. Keep the possession limit at the 30 day allotment value, but don't use the allotment system. Page 35, title 36-302 Section G states:

A QUALIFYING PATIENT MAY POSSESS UP TO: (1) 120 GRAMS OF USABLE CANNABIS; OR (2) 36 GRAMS OF DELTA-9-TETRAHYDROCANNABINOL (THC) IN THE CASE OF A CANNABIS-INFUSED PRODUCT.

Technically, concentrates are not cannabis infused products. This title does not appear to rescind the current law that allows medical patients to possess their allotment value. The current wording for the allotment limit is:

The standard amount certification issued by a provider for a patient identifies **the quantity of dried flower and/or THC** that the patient can purchase in a given 30-day period.

This amendment proposes that Section G read:

A QUALIFYING PATIENT MAY purchase UP TO: (1) 120 GRAMS OF dried CANNABIS flower; and/OR (2) 36 GRAMS OF DELTA-9-TETRAHYDROCANNABINOL (THC) contained in CANNABIS PRODUCTS. The requirement to limit patient purchases through the allotment system ends as of the effective date of this bill.

Amendment 7: Home grow provisions

(Page 36) Title 36-302 (B) says

- (1) A QUALIFYING PATIENT WHO IS AT LEAST 21 YEARS OLD MAY NOT CULTIVATE MORE THAN FOUR CANNABIS PLANTS.
- (2) IF TWO OR MORE QUALIFYING PATIENTS WHO ARE AT LEAST 21 YEARS OLD RESIDE AT THE SAME RESIDENCE, NOT MORE THAN FOUR CANNABIS PLANTS MAY BE CULTIVATED AT THAT RESIDENCE.

The home grow provisions are not sufficient for medical patients. This amendment requests the following provisions:

- (1) A QUALIFYING PATIENT WHO IS AT LEAST 21 YEARS OLD MAY NOT CULTIVATE MORE THAN six flowering CANNABIS or hemp PLANTS and 6 non-flowering cannabis or hemp plants.
- (2) IF TWO OR MORE QUALIFYING PATIENTS WHO ARE AT LEAST 21 YEARS OLD RESIDE AT THE SAME RESIDENCE, NOT MORE THAN twelve flowering CANNABIS or hemp PLANTS and twelve non-flowering cannabis or hemp plants MAY BE CULTIVATED AT THAT RESIDENCE.
- (3) Any home cultivator may possess any amount of cannabis flower or cannabis product produced from cannabis cultivated the property. Such cannabis may either be consumed on the property or distributed via sharing of personal use amounts.
- (4) Any home cultivator may access cannabis testing services
- (5) Sales of cannabis seeds and clones are allowed to adults over 21 years of age by licensed dispensaries. (House Amendment 9)

Amendment 8: new edibles rules

(Page 69) Title 36-1103 (A) (1) states:

(A) (1) A PERSON MAY NOT SELL OR DISTRIBUTE A PRODUCT INTENDED FOR HUMAN CONSUMPTION OR INHALATION THAT CONTAINS MORE THAN 0.5 MILLIGRAMS OF TETRAHYDROCANNABINOL PER SERVING OR 2.5 MILLIGRAMS OF TETRAHYDROCANNABINOL PER PACKAGE UNLESS THE PERSON IS LICENSED UNDER 27 § 36–401 OF THIS TITLE AND THE PRODUCT COMPLIES WITH THE:

- (I) MANUFACTURING STANDARDS ESTABLISHED UNDER § 29 36–203 OF THIS TITLE;
- (II) LABORATORY TESTING STANDARDS ESTABLISHED UNDER § 2 36–203 OF THIS TITLE; AND
- (III) PACKAGING AND LABELING STANDARDS ESTABLISHED 4 UNDER § 36–203 OF THIS TITLE.

This title is intended to stop the marketing of hemp derived products capable of intoxication. At the least it needs to be clear that this title does not apply to sharing. The hemp industry has already objected strenuously to this title banning products that are currently legal. This amendment requests that title 36-1103 A) 1) be struck.

It should be noted that this bill does not restrict the selling of high dose (>10mg/serving) edibles to adult use customers. Presumably that will be done by regulation, but a statute should be considered to formalize the intent of the edibles regulations that were implemented for medical.

#### Amendment 9: Consistent weight measurement system

All weight references should use one measurement system consistently. This amendment requests the weight limit for processors to be defined as 454 KG instead of 1,000 pounds. (page 37) Title 36-401 C) 1) ii) and C) 2) ii)

#### Amendment 10: Jail use – allow topical use

(page 69) Title 36-1102 A) (5)

POSSESS CANNABIS, INCLUDING CANNABIS PRODUCTS, IN A LOCAL DETENTION FACILITY, COUNTY JAIL, STATE PRISON, REFORMATORY, OR OTHER CORRECTIONAL FACILITY, INCLUDING A FACILITY FOR THE DETENTION OF JUVENILE OFFENDERS.

This amendment requests an exception for cannabis products designed for topical use.

#### Amendment 11: On site consumption

(Page 50) Title 36-407 F) 6)

AN ON–SITE CONSUMPTION ESTABLISHMENT MAY NOT:

6) ALLOW THE USE OR CONSUMPTION OF CANNABIS BY A PATRON WHO DISPLAYS ANY VISIBLE SIGNS OF INTOXICATION;

The purpose of onsite consumption is to get intoxicated. A safety plan to prevent overserving customers should be regulated like establishments that serve alcohol. House Amendment 12 requests a study on

onsite regulations. This bill should not preclude the results of that study. This amendment requests that this line be stricken.

Amendment 12: Non-profit cultivation license.

This amendment requests a new subclass of micro cultivation license to allow non-profit organizations to cultivate and distribute cannabis products free of charge to those in need (e.g. veterans)

Amendment 13: Public education –5% for public health fund for 3 years

We are about to turn cannabis loose among the public in a move that is equivalent to handing a new driver the keys to a Maserati and telling them to go learn how to drive on the Beltway. New cannabis users need to have mentors to guide them through a safe introduction to cannabis. Currently dispensaries have medical directors and training for dispensary staff to assist new patients, but new patients have little awareness of these resources and few dispensaries reach out to push this information to new customers. We need a massive consumer outreach program to begin educating the public about cannabis. Delegate Grammar asked the question “What does legalization tell our kids?” Answering that question is going to cost a lot more than 1.5%. This amendment requests that funding allocation for the Cannabis Public Health Fund be set at 5% of revenues for the first 3 years.

Page 80 title 2-1302.2 amend item 4 to read

FOR FISCAL YEARS 2024 THROUGH 2026 5% to the 1.5% TO THE CANNABIS PUBLIC HEALTH FUND ESTABLISHED UNDER § 13–4505 OF THE HEALTH – GENERAL ARTICLE and 1.5% TO THE CANNABIS PUBLIC HEALTH FUND thereafter;

Amendment 14: Remove license caps

There are thousands of locations that are licensed to sell alcohol, tobacco or prescription drug products. The license caps have no practical value as a permanent cap that can never be reached. This amendment requests (page 37) title 36-401 Section D be stricken. Concurrent with amendment 1, this section is not necessary.

Amendment 14: Farm license

Cannabis farms should be able to host events equivalent to winery tours. This requires a license type that allows cultivation, processing and retail sales. There are several provisions in this bill that would prohibit such events. This amendment requests a “farm” type license that would allow the cannabis equivalent of winery tours.

Amendment 15: D8 ban

(page 70) Title 36-1103. B

) A PERSON MAY NOT SELL OR DISTRIBUTE A CANNABINOID PRODUCT THAT IS NOT DERIVED FROM NATURALLY OCCURRING BIOLOGICALLY ACTIVE CHEMICAL CONSTITUENTS.

This text does not make a distinction between Delta-8 products made directly from naturally occurring constituents and Delta-8 products that are derived from natural constituents (i.e. unnaturally altered). If the intent was to ban hemp products spiked with chemically created D8 distillate, this title will not do that. This is a complex topic that is difficult to address from this angle. An alternative is to address D8 products specifically and synthetic "production" more generally. I offer to work with the sponsors to develop specific language if this section gets modified.

Delta 8 products have medical use. Delta 8 products should be tested, not banned. Licensed dispensaries should be allowed to sell D8 products. Licensed hemp farmers should be given special licenses to allow them to continue to sell D8 products.

Amendment 16: - Remove shelf space requirement

House Amendment #9 contains the following additional text

On page 55, in line 2, after "CAREGIVERS" insert "; AND  
(3) ENSURE THAT SHELF SPACE IN THE DISPENSARY IS AVAILABLE  
FOR CANNABIS AND CANNABIS PRODUCTS FROM GROWERS AND PROCESSORS  
THAT DO NOT SHARE COMMON OWNERSHIP WITH THE DISPENSARY";

This language is vague, easily circumvented, is attempting to prevent a problem that does not exist and is a problem that cannot be created under round 1 licensing. Since it was introduced on the floor as "other technical fixes", either further clarification should be required or this amendment should be stricken.

Thank you,  
Rusty Carr



# **Senate Bill 0516\_Favorable with Amendments\_Resynat**

Uploaded by: Scott Philbrick

Position: FWA

March 8, 2023

Testimony Submitted “**Favorable with Amendments**”

Dear Honorable Members of the Maryland Senate,

My name is Scott Philbrick, and I am the co-founder and CEO of Resynate, a Maryland-based CBD company that produces high-quality, natural, & full panel third party tested full-spectrum CBD and botanical products. I am writing to express my strong opposition to **section 36–1103** of the proposed bill 0516, Cannabis Reform Act, which would limit the overall THC content of products for human consumption or inhalation that contains more than 0.5 milligrams of THC per serving, or 2.5 milligrams of THC per package.

As a business owner who has helped to build Resynate from the ground up, I am deeply concerned about the impact that this bill would have on our customers, our community, and our business. Our customers come to us because they trust us to provide them with safe, effective, and high-quality CBD products that are free from harmful contaminants, solvents, pesticides, microbials, and are formulated to meet their specific needs. By limiting the overall THC content in our products further, this bill would severely limit our ability to serve our customers effectively and would likely force us to close our doors. We have been in business since 2012, principal office address P.O. Box 1206 Olney, MD 20830-1206. We have put countless hours and all our revenues back into building this business. Last year alone we invested over \$100,000.00 of our own savings from working other jobs just to keep our business afloat and mission to serve our customers sustained.

Quality, education, and sustainability are the cornerstones and core values of our business, and we take great pride in the products that we produce with the utmost care and quality control. We believe that our customers deserve access to the highest quality CBD products that are formulated to meet their individual needs, and we are committed to providing them with the best possible experience and safe/quality products. Losing our business would not only impact my family and me, but it would also affect our community, as we employ a number of individuals who rely on us for their livelihoods, and utilize our products to enhance their health and wellbeing as their testimonies state.

Furthermore, full-spectrum CBD products like we offer contain a wide range of beneficial cannabinoids, terpenes, and flavonoids that work together to produce what is known as the entourage effect. This phenomenon allows the different compounds in the hemp plant to work synergistically, enhancing the overall effectiveness of the product. CBD isolate, on the other hand, is limited to targeting fewer receptor cells within the endocannabinoid system, and is therefore less effective than full-spectrum CBD products. This application to our knowledge and extensive research is only effective for pets.

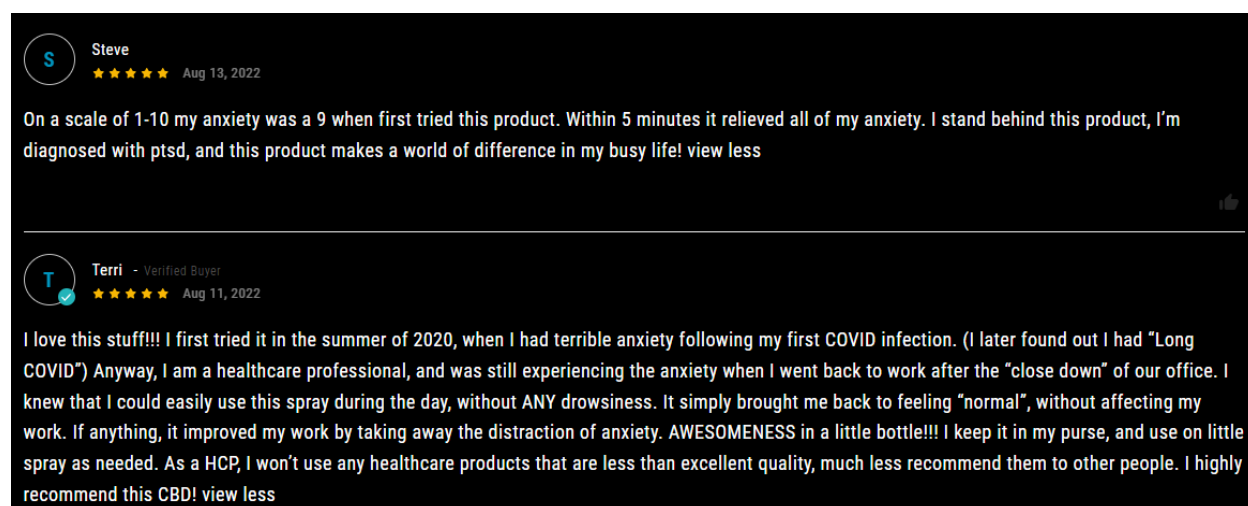
It is bad policy to criminalize a federally legal industry while legalizing what is still a federally illegal industry. The CBD industry deserves to be here, and we are needed to

service the customers we serve. It is also important to differentiate between hemp products and cannabis products, as hemp products contain less than 0.3% THC and are federally legal. Our products are derived from hemp and contain levels of THC that are within the legal limit, and as such, we should not be punished for operating a legal and regulated industry.

We have participated in, and are in full support of Bill HB-1207, which we believe clearly addresses all your potential concerns related to Delta8 and the limit of all THC content in Hemp based products. We are part of the group of good guys that are taking leaps and bounds to do this right, operate compliantly, and separate ourselves from all the bad actors in the industry.

We believe in stricter regulation, and we want to protect public safety from all issues that can arise from an unregulated industry. We welcome regulation, as we believe it will help to ensure that all CBD products meet the highest quality control standards of purity, potency, and consistency. However, we do not believe that limiting the overall THC further from the farm bill requirement of less than 0.3% THC content in our products is the right approach. The defining difference between hemp and marijuana is their psychoactive component: tetrahydrocannabinol, or THC. Hemp has 0.3% or less THC, meaning hemp-derived products don't contain enough THC to create the "high" traditionally associated with marijuana for the end user or consumer.

Here are a couple examples of verified customer reviews, and a DEA licensed third-party lab result for the very same product (Full spectrum CBD Oral Spray) of which this referenced section of the bill would render this product illegal. Under current federal standards it produces a "ND" (Non-Detect) for all forms of THC based on current LOQ of 0.20 mg/g (Limit of Quantitation) from a licensed cannabis third party lab.



The image shows a screenshot of two verified customer reviews for a CBD product. The first review is from Steve, dated August 13, 2022, with a 5-star rating. He states that on a scale of 1-10, his anxiety was a 9 when he first tried the product, but it was relieved within 5 minutes. He is diagnosed with PTSD and the product makes a significant difference in his busy life. The second review is from Terri, a verified buyer, dated August 11, 2022, also with a 5-star rating. She shares that she first tried the product in the summer of 2020 after her first COVID infection, which led to "Long COVID". As a healthcare professional, she found the product helpful for managing anxiety without drowsiness, allowing her to continue working. She highly recommends the product.

**S** Steve  
★★★★★ Aug 13, 2022

On a scale of 1-10 my anxiety was a 9 when first tried this product. Within 5 minutes it relieved all of my anxiety. I stand behind this product, I'm diagnosed with ptsd, and this product makes a world of difference in my busy life! view less

---

**T** Terri - Verified Buyer  
★★★★★ Aug 11, 2022

I love this stuff!!! I first tried it in the summer of 2020, when I had terrible anxiety following my first COVID infection. (I later found out I had "Long COVID") Anyway, I am a healthcare professional, and was still experiencing the anxiety when I went back to work after the "close down" of our office. I knew that I could easily use this spray during the day, without ANY drowsiness. It simply brought me back to feeling "normal", without affecting my work. If anything, it improved my work by taking away the distraction of anxiety. AWESOMENESS in a little bottle!!! I keep it in my purse, and use on little spray as needed. As a HCP, I won't use any healthcare products that are less than excellent quality, much less recommend them to other people. I highly recommend this CBD! view less

Link to Certificate of Analysis:

[https://cdn.shopify.com/s/files/1/0096/7334/3054/files/2212HGL5340.19806 -  
\\_Resynate LLC - CBD Tincture.pdf?v=1672948374](https://cdn.shopify.com/s/files/1/0096/7334/3054/files/2212HGL5340.19806_-_Resynate_LLC_-_CBD_Tincture.pdf?v=1672948374)

In conclusion, I urge you to consider the negative impact that this bill would have on our business and on our customers. We are committed to providing safe, effective, and high-quality CBD products to our customers, and we believe that we have a valuable role to play in the Maryland hemp industry. I respectfully ask that you vote in favor of this bill, with amendments to section 36-1103, that support our industry and our customer's best interest.

Thank you for your careful consideration.

Sincerely,

Scott Philbrick  
Co-Founder and CEO, Resynate, LLC.

**SB0516 Letter.pdf**

Uploaded by: Shanetha Lewis

Position: FWA



## Because We C.A.R.E

### Testimony on Maryland Senate Bill 0516 Cannabis Reform

TO: Senator Melanie Griffith Chair, and Senate members of the Finance Committee  
FROM: Shanetha Lewis, Veterans Initiative 22, Executive Director  
DATE: 3/08/2023  
POSITION: Favorable with Amendments

Veterans Initiative 22 is a 501(c)(3) non-profit organization that focuses on helping Veterans, Family and First Responders by providing resources, employment opportunities, and continuously advocating for rights and access to affordable cannabis and Veteran rights. VI 22 was named as such after the estimated 22 Veterans who commit suicide daily due to PTSD, and it is our organization's goal to bring national awareness to this tragedy, while also working to improve the lives of Veterans across the country.

Additionally, we actively seek and advocate for more Veteran employment opportunities within the cannabis, alternative medicine, and holistic wellness industries. We invite businesses and organizations to evaluate hiring processes, business practices, and keep Veterans in mind; as they are, without a doubt, valuable assets to any organization.

Please note our strong **support** for this bill with amendment. For the following reasons:

First I want to say thank you for the opportunity to submit my testimony in support of **SB0516** Cannabis Reform My name is Shanetha Marable Lewis and I hold a Master's degree in Medical Cannabis Science and Therapeutics from the University of Maryland School of Pharmacy, I am proud Army combat veteran, spouse of a 20 year retired Army combat veteran, and I am also the Executive Director of Veterans Initiative 22, a non-profit organization named as such in honor of the previously estimated 22 veterans who commit suicide daily. I strongly support the Cannabis Reform Bill for both my non-profit mission as well as my person entrepreneurial endeavors. I wish to own and operate a Cannabis Wellness Center under a Consumption Lounge License. In the Cannabis Reform Bill and proposed Social Equity standards there is no provision, exception or qualification that



## Because We C.A.R.E

includes Veterans, and more specifically Veterans that are a part of a minority group, like myself, I am a disabled veteran woman of color. Based on the current specifications for Social Equity licensee applicants, I would not fall into any of those categories as I would be disqualified for consideration SOLELY due to the amount of time I have lived in the area, although I plan to remain in Maryland for the foreseeable future as this is where my family resides and where I plan to raise my children and with no intention of relocating, and I believe military service should nullify the in state residency time requirement. I simply ask for an accommodation for minority veterans to be included in your list of qualified applicants and to allow military service to be an exception to the residency time requirements, Again I thank you for your time in reading my testimony, for your consideration of the amendments I proposed and for your support in the passage of this bill.

Thank You,

Shanetha Lewis, M.S MCST  
Veterans Initiative 22  
Executive Director  
304-322-6384  
info@vetransinitiative22.com

# **Testimony SB516.pdf**

Uploaded by: Spencer Lawrence

Position: FWA



Testimony 3/9/23  
Senate Bill #516

Good afternoon committee members. My name is Spencer Lawrence. I would like to thank the committee for taking my testimony on SB516.

I am the Co-owner of TrueNorth Naturals, a hemp retail business. We sell consumer-ready hemp products online and in-person. Previously, we owned and operated an industrial hemp farm on which we cultivated hemp in 2020 and 2021.

I am here to discuss the fact that language in this bill will significantly restrict the types of hemp-derived products that one can produce and sell in Maryland. I commend the legislature's effort to restrict products that it perceives as intoxicating.

While we support the decision to include restrictions to the sale and distribution of chemically manufactured cannabinoids like delta (8) THC, we are in staunch opposition to the adoption of the THC limits to naturally-occurring hemp-derived products detailed in Section 36-1103, Page 69, Line 23-29. These limits are in clear contradiction to the Federal standards as outlined in the 2018 Farm Bill and do not take into account the credible pharmacological studies showing that CBD reduces both the potency and efficacy of THC. Our products have provided relief from anxiety to pain and helped improve sleep for many of our customers with no intoxicating side effects. Further, it would require our hemp business, that currently operates under Federal law, to register and submit to the regulations of an industry that operates outside of Federal law. That doesn't make sense to us.

The passage of this Bill as it now reads will place our local hemp farms, producers and retailers at a significant disadvantage in the market and in our opinion is a direct attack of the MD Right to Farm statute. I would like to provide a potential solution to the proposed restrictions by suggesting a change in the language to raise the limits to reflect the Federal THC threshold of 3mg THC per hemp-derived CBD per serving and 90mg per package. As a compromise, restrictions on the use of the marketing term "Hemp-derived THC" could be adopted.

Thank you for your consideration of our proposed amendments, and we look forward to your support of the industrial hemp industry in Maryland.

Our position is in support of the Bill with an amendment.

Regards,  
Spencer Lawrence  
Co-Founder & CEO  
TrueNorth Naturals

SENATE BILL 516 Section 36-1103  
Page 69

23 (A) (1) A PERSON MAY NOT SELL OR DISTRIBUTE A PRODUCT INTENDED  
24 FOR HUMAN CONSUMPTION OR INHALATION THAT CONTAINS MORE THAN 0.5  
25 MILLIGRAMS OF TETRAHYDROCANNABINOL PER SERVING OR 2.5 MILLIGRAMS OF

26 TETRAHYDROCANNABINOL PER PACKAGE UNLESS THE PERSON IS LICENSED UNDER  
27 § 36-401 OF THIS TITLE AND THE PRODUCT COMPLIES WITH THE:  
28 (I) MANUFACTURING STANDARDS ESTABLISHED UNDER §  
29 36-203 OF THIS TITLE;

# **MMG Testimony in Support of an Amendment to Senate**

Uploaded by: Stanley W. Tucker

Position: FWA

**Meridian Management Group, Inc.**  
**Testimony In Support of an Amendment to S.B. 516**

*March 9, 2023*

Madam Chair and distinguished members of the Finance Committee. Thank you for taking time to hear my testimony in support of an amendment to S.B. 516. My name is Stanley Tucker, President of Meridian Management Group, Inc. (“MMG”). MMG is the manager of the Maryland Casino Business Investment Fund (“MCBIF”), one of nine (9) fund managers for the Video Lottery Terminal (“VLT”) fund. In addition, MMG manages the Maryland Small Business Development Financing Authority (“MSBDFa”) for the Department of Commerce. In total, our professional staff has over 150 years of experience providing financing, management and technical assistance to small, minority and women-owned businesses in the State of Maryland.

**“CAPITALISM WITHOUT CAPITAL DOES NOT WORK”**

There continues to be a “lack of access to capital” to support the growth of small, minority and women-owned businesses (“SMWBs”) in Maryland. This lack of access to capital is supported by recent local and national studies, including the Maryland Department of Transportation most recent disparity study.

In view of this continuing disparity and capital need, I am proposing that an amendment to S.B. 516 be made to include a provision that **10% of any excise tax or conversion fees that is assessed against the sale or licensing of recreational cannabis be directed into the Small, Minority, and Women-Owned Business Account that is reserved for the purpose of providing equity investments and lending capital to SMWBs in the State of Maryland.**

Such a provision will be very similar to the Video Lottery Terminal Fund (“VLT Fund”) legislation that was enacted in 2008, requiring 1.5% of all VLT revenues be allocated to financing for SMWBs. The VLT Fund became active in 2013 and Commerce has since certified nine (9) Eligible Fund Managers to manage these funds throughout the state.

**The VLT Fund has been very successful and has received a national award for its innovativeness. Maryland has also become a national model for how states can generate revenues to support small, minority and women-owned businesses as well as support education. From FY 2013 through FY 2022, approximately \$90 million has been allocated from the VLT Fund to the Eligible Fund Managers. According to the Department of Commerce's 2022 Annual Report, VLT generated: \$90 million in loans through 915 transactions that created 3,831 jobs and retained 6,351 jobs and leveraging \$203.7 million in private sector capital.**

The Account is already established. The structure has been in place for nearly 10 years. It is administered by the Dept. of Commerce which has extensive experience in managing such a fund. These funds are ready to be deployed to small, minority and women-owned businesses that are starving for additional capital.

Proposed Amendment:

1. The Recreational Cannabis Bill should include a provision that **10% of any excise tax or conversion fee that is assessed against the sale or licensing of recreational cannabis be directed into the Account.** Using estimates developed by The Maryland Cannabis Policy Coalition, during the first 6 years, approximately \$5.6 billion in retail sales could be generated - resulting in approximately \$50 million going into the Account (see attachment).
2. Since Maryland currently does not allow funds in the Account to be provided to businesses in the cannabis industry, **we also propose that the legislation allow the state financing programs to loan or invest in cannabis businesses.**
3. Finally, the current VLT Fund requires that a minimum of 50% of the funding be provided to businesses that are in certain geographical areas near the Maryland casino venues. **We recommend that none of the dollars from Recreational Cannabis funding be restricted to any geographic designations.**

Once again, lack of access to capital has always been a challenge for SMWBs in Maryland. Most traditional sources of funding for SMWBs are limited due to the high-risk nature of

financing these enterprises. VLT funding helps fill that void. However, additional capital will be needed to support SMWBs in and outside of the cannabis industry. Example, looking at Maryland procurements, infrastructure and offshore wind opportunities alone, there is approximately **\$50 billion in contract opportunities available to minority and women business over the next 5 years**. If MBEs can obtain **25% of this amount**, it represents **approximately \$12.8 billion** in potential revenue. The capital need associated with these opportunities is estimated to be \$3.8 billion. We anticipate the need for access to capital will remain a central component to the future success of SMWBs and the State of Maryland. Hence, more capital will be needed.

**Attachment**

**Maryland Estimated Cannabis Revenue Projections**

<b>Year</b>	<b>Total Anticipated Retail Sales *</b>	<b>Projected State Tax Rate</b>	<b>State Tax Revenue</b>	<b>Local Tax Revenue (3%)</b>	<b>10% of Retail Sales Tax</b>	<b>Projected Allocation to SMWB Account</b>
2024	\$ 300,220,263	6%	\$ 18,013,216	\$ 9,006,608	10%	\$ 1,801,322
2025	\$ 559,696,165	7%	\$ 39,178,732	\$ 16,790,885	10%	\$ 3,917,873
2026	\$ 825,132,237	8%	\$ 66,010,579	\$ 24,753,967	10%	\$ 6,601,058
2027	\$ 1,048,399,833	9%	\$ 94,355,985	\$ 31,451,995	10%	\$ 9,435,598
2028	\$ 1,184,882,989	10%	\$ 118,488,299	\$ 35,546,490	10%	\$ 11,848,830
2029	\$ 1,694,207,018	10%	\$ 169,420,702	\$ 50,826,211	10%	\$ 16,942,070
<b>Total</b>	<b>\$ 5,612,538,505</b>		<b>\$ 505,467,512</b>	<b>\$ 168,376,155</b>		<b>\$ 50,546,751</b>

\* The anticipated retail sales for Maryland are derived from the "Maryland Cannabis Policy Coalition" 2021 estimates which is based on the state of Colorado's annual retail sales.

**5b - X - SB 516 - FIN - MDH - LOSWA.docx.pdf**

Uploaded by: State of Maryland (MD)

Position: FWA





## DEPARTMENT OF HEALTH

Wes Moore, Governor · Aruna Miller, Lt. Governor · Laura Herrera Scott, M.D., M.P.H., Secretary

March 9, 2023

The Honorable Melony Griffith  
Chair, Senate Finance Committee  
3 East, Miller Senate Office Building  
Annapolis, Maryland 21401

### Re: SB 516 - Cannabis Reform - Letter of Support with Amendments

Dear Chair Griffith and Committee Members:

The Maryland Department of Health (MDH) respectfully submits this letter of support with amendments for Senate Bill (SB) 516 - Cannabis Reform. SB 516 is an emergency bill that outlines various regulations for the legalization of adult-use cannabis in Maryland, including: licensing, product testing, packaging, labeling, and advertising; taxes and funding; and law enforcement provisions. SB 516 also establishes the Alcohol, Tobacco, and Cannabis Commission as the primary regulatory and licensing entity for both medical and adult-use cannabis in Maryland.

MDH supports SB 516 and a framework that centers adult-use cannabis as a health equity and a social justice issue.<sup>1</sup> Additionally, MDH supports limiting the sale or diversion of cannabis and cannabis products to persons under the age of 21, as outlined in this bill. Cannabis risks include psychosis, but it also can impair cognition, especially in the young.<sup>2,3</sup> However, additional public health concerns exist with SB 516 as written. Below is a summary of proposed amendments to address these concerns.

- 1) **SB 516, as written, prohibits smoking and vaping of tobacco products within these facilities but permits smoking of cannabis, creating inconsistency with the Clean Indoor Air Act (CIAA) and challenges for enforcement.** SB 516 creates an on-site consumption license that allows license holders to operate a facility in which cannabis products can generally be smoked, vaped, or consumed while on the premises of the establishment. As is the case for smoking cigarettes, smoking cannabis creates secondhand smoke that contains cancer-causing chemicals and other toxic compounds.<sup>4</sup> In 2007, Maryland passed the Clean Indoor Air Act (CIAA) to prohibit smoking cigarettes and other tobacco products within virtually all indoor public places, including bars, restaurants, and places of employment.<sup>5</sup> House Bill 837 (2022) amended the CIAA to further prohibit smoking cannabis and combustible tobacco products in public places.<sup>6</sup>

<sup>1</sup> American Public Health Association, A Public Health Approach to Regulating Commercially Legalized Cannabis, 24 Oct 2020, Accessed 8 Feb 2023 at

<<https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2021/01/13/a-public-health-approach-to-regulating-commercially-legalized-cannabis>>.

<sup>2</sup> Novel Insights on Cannabis and Psychosis (2020) <https://www.psychiatrytimes.com/view/novel-insights-cannabis-psychosis>

<sup>3</sup> Adolescents are more sensitive than adults to acute behavioral and cognitive effects of THC. (February 2022)

<https://www.nature.com/articles/s41386-022-01281-w>

<sup>4</sup> Moir D, et al., "A comparison of mainstream and sidestream marijuana and tobacco cigarette smoke produced under two machine smoking conditions," *Chemical Research in Toxicology*, Feb 2008, 21(2): 494-502, *PubMed*, Accessed 8 Feb 2023 at

<<https://pubmed.ncbi.nlm.nih.gov/18062674/>>.

<sup>5</sup> Chapter 501 of the Acts of 2007 (SB 91). Accessed 8 Feb 2023 at

<[https://mgaleg.maryland.gov/2007RS/chapters\\_noln/Ch\\_501\\_sb0091E.pdf](https://mgaleg.maryland.gov/2007RS/chapters_noln/Ch_501_sb0091E.pdf)>.

<sup>6</sup> Chapter 26 of the Acts of 2022 (HB 837). Accessed 8 Feb 2023 at <[https://mgaleg.maryland.gov/2022RS/chapters\\_noln/Ch\\_26\\_hb0837E.pdf](https://mgaleg.maryland.gov/2022RS/chapters_noln/Ch_26_hb0837E.pdf)>.

Proposed Amendment(s): Amending SB 516 to prohibit smoking of all combustible cannabis and tobacco products within on-site consumption facilities that share a wall with another property will better align with existing CIAA laws. This amendment would protect residents, including children and non-smokers, from exposure to cannabis smoke that may come through the walls, vents, or other areas. Consideration must be given to shared walls with residences, childcare centers, and other locations that might negatively impact children or those in vulnerable populations. Adoption of the proposed amendment to §36-407 would allow facilities where the smoking of cannabis is prohibited to be subject to the provisions of the Clean Indoor Air Act, including enforcement provisions in §24-508.

- 2) **Current law, [Health-General §13-4502](#), creates the Cannabis Public Health Advisory Council and specifies the membership including the Secretary of Health and the Deputy Secretary for Behavioral Health or designees.** Public Health Services is not named but given the Council's scope of work, will likely be staffing the Council so would propose a seat for the Deputy Secretary for Public Health Services.

Proposed Amendment: Add the Deputy Secretary for Public Health Services or designee as a member of the Council.

Lastly, SB 516 allocates revenue from cannabis excise taxes to specific entities, including 1.5 percent to the Cannabis Public Health Fund managed by MDH. The amount is indeterminate given the unknown amount of revenue from taxes. The Cannabis Public Health Fund may be used for certain activities including public awareness campaigns and educational programs for schools, data collection, substance use treatment, and supporting the Advisory Council. MDH notes that it will be important to have adequate funding for the Cannabis Public Health Fund to address the public health impact of adult-use cannabis legalization in Maryland and, as MDH implements this Fund, we will work closely with the Department of Budget and Management to ensure adequate funding.

MDH supports SB 516 with amendments and urges a favorable report from the committee. If you would like to discuss this further, please do not hesitate to contact Megan Peters, Acting Director of Governmental Affairs at [megan.peters@maryland.gov](mailto:megan.peters@maryland.gov) or (410) 260-3190.

Sincerely,



Laura Herrera Scott, M.D., M.P.H.  
Secretary

**MDH Proposed Amendments**  
**SB 516 - Cannabis Reform**  
**First Reader**

AMENDMENT NO. 1

On page 50, after line 15, insert:

**“(B) ON-SITE CONSUMPTION FACILITIES THAT ARE NOT FREE-STANDING OR SHARE AT LEAST ONE WALL WITH ANOTHER PROPERTY ARE PROHIBITED FROM ALLOWING SMOKING OF ALL COMBUSTIBLE CANNABIS PRODUCTS.”**

On page 50, in lines 16 and 24, strike “(B)” and “(C)”, respectively, and substitute “(C)” and “(D)”, respectively.

On page 51, in lines 2, 5, 9, and 25, strike “(D)”, “(E)”, “(F)”, and “(G)”, respectively, and substitute “(E)”, “(F)”, “(G)”, and “(H)”, respectively.

On page 52, in lines 4, 11, and 15, strike “(H)”, “(I)”, and “(J)”, respectively, and substitute “(I)”, “(J)”, and “(K)”, respectively.

AMENDMENT NO. 2

On page 4, after line 1, insert:

**“BY REPEALING, AND REENACTING, WITH AMENDMENTS**

**ARTICLE – HEALTH – GENERAL**

**SECTION 13-4502(a)(b)**

**ANNOTATED CODE OF MARYLAND**

**(2019 REPLACEMENT VOLUME AND 2022 SUPPLEMENT)”**

On page 84, after line 22, insert: “13-4502 (a)(b).

“13-4502(a)(b).”

(a) There is a Cannabis Public Health Advisory Council.

(b) The Advisory Council consists of the following members:

(1) One member from the Senate of Maryland, appointed by the President of the Senate;

(2) One member from the House of Delegates, appointed by the Speaker of the House;

(3) The Secretary, or the Secretary's designee;

(4) The Deputy Secretary for Behavioral Health, or the Deputy Secretary's designee;

**(5) The Deputy Secretary for Public Health Services, or the Deputy Secretary's designee;**

~~[(5)] (6) The Secretary of Agriculture, or the Secretary's designee;~~

~~[(6)] (7) The executive director of the Natalie M. LaPrade Medical Cannabis Commission, or the executive director's designee;~~

~~[(7)] (8) The State Superintendent of Schools, or the State Superintendent's designee; and~~

~~[(8)] (9) The following members appointed by the Governor:~~

~~(i) One representative from the Governor's Office of Crime Prevention, Youth, and Victim Services;~~

~~(ii) One representative from a historically black college or university;~~

~~(iii) One health care provider with experience in cannabis;~~

~~(iv) One pharmacist licensed in the State;~~

~~(v) One health care provider with expertise in substance use disorder treatment and recovery;~~

~~(vi) One individual with expertise in cannabis use disorder;~~

~~(vii) One academic researcher with expertise in cannabis law and policy;~~

~~(viii) One individual with at least 5 years of experience in health or social equity;~~

~~(ix) One public health professional with cannabis experience; and~~

~~(x) One representative of a laboratory that tests cannabis.~~

# **Reiser-Acknowledge Farms Testimony.pdf**

Uploaded by: Stefanie Reiser

Position: FWA

# acknowledge.

Chair Melony Griffith  
Senate Finance  
Miller Senate Office Building  
Annapolis, MD 21401

## **Position: Favorable to SB 516 with Amendments**

Dear Chairs and Members:

My name is Stefanie Reiser. I am the founder and CEO of Acknowledge Farms, a woman-owned regenerative organic hemp farm located in Washington County in Western Maryland's Pleasant Valley. We have our own artisanal brand of full-spectrum CBD tinctures designed to provide our customers a natural, plant-based solution to support their health and wellness.

In launching this business, I was fully cognizant of the differences between hemp and marijuana, and I specifically set out to create a business that could succeed within both the letter and intent of the law: healthy, natural, plant-based, *non-intoxicating* products that are as close to the natural plant as possible. Through three seasons, by investing in careful cultivation management and testing above and beyond what is required, we have never exceeded the Federally-defined limitation of .3% delta-9 THC in any of the strains or harvests we have grown, and all our products remain below this limit.

As written, SB 516 - Cannabis Reform would effectively kill my business in the state of Maryland. The provisions introducing a limit on the sale of any consumable product with more than .5mg of delta-9 THC per serving and 2.5mg delta-9 THC per package without an adult-use cannabis license are an arbitrary designation that would eliminate the non-intoxicating full and broad-spectrum hemp product industry, like my products. If these provisions stand, my non-intoxicating products would be illegal in the State of Maryland, and I would immediately pivot my business to take all extraction, product development, formulation, manufacture and sale out of the state.

Acknowledge Farms does not, has not, and will not participate in the Delta-8 and other loophole intoxicant market. We knew this was an evolving industry when we launched, and I developed my business plan to be able to weather the market, and not have to rely on loopholes in order to survive. I strongly believe that all intoxicating products should be regulated under the jurisdiction of the MMCC (now ATCC). What constitutes an intoxicating product is the distinction that requires clarity for efficient and effective regulation.

Acknowledge Farms, LLC  
2045 Reed Road  
Knoxville, MD 21758

When the 2018 Farm bill was passed paving the way for a federally defined and legal hemp market, it contemplated a market that includes full spectrum cannabinoid products. I respectfully urge this committee not to take action that kills the legal hemp industry in Maryland before it has the chance to develop as it has in other states. There is room for both the marijuana and hemp industries to coexist and thrive. Other states are leading the way and can provide examples of how to achieve this.

Specifically, Colorado is at the forefront of states where both the medical and adult-use marijuana industries and the hemp industries coexist and thrive. As a result, they are also at the forefront of policy initiatives to address the question of how and where to regulate intoxicating components of marijuana vs. hemp. I would urge the legislators to look to Colorado's leadership as the gold standard for producing a legal and regulatory framework to accommodate both a healthy and thriving marijuana industry and hemp industry in Maryland. Specifically, I would support a standard that utilizes a CBD to THC ratio as an indicator on whether or not the product is intoxicating, as Colorado has proposed. Similarly, Vermont has adopted this approach. In developing their regulatory framework, Colorado set up a Task Force that included all stake-holders from both industries, as well as the scientific community, to determine an appropriate standard between intoxicating and non-intoxicating hemp products. Based on their findings, they established a 15:1 CBD to THC ratio or higher. Vermont chose a 20:1 CBD to THC ratio as their standard, which was adopted by their legislature.

It is my recommendation that this committee amend the bill before it today to adopt a similar regime for determining whether a hemp-derived product should fall under the jurisdiction of the ATCC. By following the guidelines set in Colorado, Maryland will be able to ensure that non-intoxicating hemp products will still be available to licensed hemp farmers and producers.

I look forward to working with the committee and the bill sponsors to craft language that would allow Maryland hemp farmers to continue to keep their farms, grow hemp and sell hemp as a non-intoxicating therapeutic, and continue to benefit the Maryland economy.

Respectfully submitted,

Stefanie Reiser  
Founder & CEO  
Acknowledge Farms, LLC  
[www.acknowledgefarms.com](http://www.acknowledgefarms.com)  
**acknowledge.**

Acknowledge Farms, LLC  
2045 Reed Road  
Knoxville, MD 21758

**SB0516\_FWA\_Curaleaf\_Cannabis Reform.pdf**

Uploaded by: Steve Wise

Position: FWA





March 9, 2023

The Honorable Melony Griffith  
Chair, Senate Finance Committee  
3 East Miller Senate Office Building  
Annapolis, MD 21401

The Honorable Guy Guzzone  
Chair, Senate Budget and Taxation Committee  
3 West Miller Senate Office Building  
Annapolis, MD 21401

RE: Senate Bill 516—Cannabis Reform-Support with Amendments

Dear Chairs Griffith and Guzzone:

Thank you for the opportunity to comment on SB 516-Cannabis Reform. Curaleaf appreciates the long hours and hard work that have been put into this legislation by you and many other members of the General Assembly. We look forward to working with the State and being part of the adult-use market in the years ahead.

Curaleaf operates a medical growing facility and four dispensaries in the State. Under SB 516, the company would be able to transition into the adult-use market and begin operations on July 1, 2023, consistent with the referendum which passed overwhelmingly in November of 2022. Allowing this transition to occur quickly, in anticipation of July 1, recognizes the expectations of the public and will also serve to reduce the likelihood of illegal sales filling a void in the market. In addition, allowing medical and adult use product to be treated the same up to the point-of sale is an important part of a smooth transition but also allows those already in the market and regulators to continue using a process they are familiar with.

There are aspects of the legislation which we would respectfully ask to be given additional consideration, however. Under SB 516 Curaleaf would no longer be able to operate four dispensaries in the adult use market. The maximum number of licenses would be two, rather than four, causing Curaleaf and others to have to divest of two dispensaries. If that provision were to become law, patients at two of our facilities would need to find a new dispensary, our employees at those dispensaries would need to find jobs, and the company's investments there would be stranded.

We appreciate that the policy goal behind this provision is to ensure a place in the adult use market for social equity applicants, but we believe that place will exist even if the limit on the number of dispensary licenses remains at four. As proposed, the legislation allows for nearly 500 dispensaries when counting the micro-dispensaries, so even with a four-license limit, one entity could at most control less than 1 percent of the total number of dispensaries.

Finally, Curaleaf would ask that the conversion fees contained in the bill be permitted to be paid overtime. The amount of the fees would remain as proposed, but this would provide an ability to pay in increments if needed.

Thank you again for your consideration of our concerns.

Sincerely,

Matt Harrell  
Vice President, Government Relations

# **SB615Testimonyto.Senate.Finance.Committee.pdf**

Uploaded by: Steven Mariast

Position: FWA

March 8, 2023

Hearing before Senate Finance Committee

SB 516

Senators and Esteemed Colleagues:

Thank you for the opportunity to provide testimony concerning the potential impact of Senate.

Bill 516 to Maryland's Cannabis Industry. We support this bill with amendments. This bill, along with HB 566 are of the utmost importance to the continued success of cannabis dispensaries, including Dispensary Works located in Southern Maryland. Each of the existing licensees has been integral to building this industry "brick by brick" into a successful industry, providing the highest quality product to meet essential medical needs.

As a native Marylander with modest beginnings, I am proud and grateful to be among the first Medical Dispensary licensees in our State, and we look forward to meeting the additional market for adult use.

We are concerned about any limitation on our ability to buy in bulk and package at the individual dispensary level. Our facility was specifically designed with the security, technology,

standard procedures, and personnel necessary to prevent diversion. We have over 30 cameras in a 2300 sq. ft. space, stringent access controls to operational areas, intensive training for new employees, and the oversight to prevent diversion. As a single license owner, we use bulk buying as a means to compete with larger dispensaries and vertically integrated companies. Buying in bulk allows us to offer lower prices to our customers, and to buy more varied product to meet the needs of our patients. We urge you to remove any provision of the bill that would take away our ability to buy in bulk and package product at our facility.

I've included below our comments regarding HB 566, as a convenience in your potential integration of provisions from that bill.

HB 556 speaks to a total of some 500 licenses in the coming years, including newly defined license categories. It is imperative that we institute the right size of this industry as we go forward. We have some concern about 500 dispensary licenses being too many, based on experience in other states, where over time cannabis dispensaries have failed in large numbers.

Unaffiliated dispensaries, such as mine, have struggled greatly to compete with the larger, vertically integrated licensees. It's a very tough cannabis market at this time, with some individual dispensaries suffering up to 30% loss in profit margins. We have seen pricing ebb and flow sharply at times due to oversupply as we anticipate and prepare for the adult-use market.

We appreciate that license awards will be staggered and urge Maryland to re-evaluate carefully as we go forward with each round of new licenses.

As a dispensary owner, we are particularly concerned about the establishment of Micro-Dispensaries and anxious to have this concept clearly defined. Would they have softer licensing requirements, operate out of non-storefront space, buy wholesale product? Would they have defined sales thresholds to observe? We are concerned about any potential unfair advantage this may create over existing, traditional dispensaries.

Please consider shortening the moratorium for transfer or sale of licenses for existing licensees. We have already observed a moratorium of 3 years, and many dispensaries were established more than 5 years ago. Even with a very successful business, owner(s) could have personal life changes requiring a change in ownership, and the inability to sell or transfer could create significant loss if they need to give up ownership/management of their business.

As we convert to county-based licensing, rather than congressional district, we wonder if this was done to distribute dispensary locations more evenly. The advantage is unclear to us. As we established our business, every dispensary location was secret until it opened, providing no opportunity to choose a different location if there were too many close by. We have no

objection to issuing based on number per county, but we would like to understand more how the State may reduce the clustering of businesses in close proximity.

Lastly, the high price for converting existing licenses is burdensome. We are experiencing significant expense as we expand our dispensary facility, and a payment plan would be extremely helpful. The high price of operating a cannabis business, coupled with expanding our facility leaves little room for unexpected costs should we have to pay the conversion fee in one payment. We support the House amendment to provide a payment plan.

Thank you again for the opportunity to express our sincere concerns as we look forward to a new market, and continued success in the cannabis industry.

Sharron Sample, CEO, Dispensary Works, LLC

# **SB 516\_Cannabis Reform\_MIEMSS\_Support with Amendme**

Uploaded by: Theodore Delbridge

Position: FWA



*State of Maryland*  
**Maryland Institute for Emergency Medical Services Systems**

Wes Moore  
Governor

Clay B. Stamp  
Chairman, EMS Board

Theodore R. Delbridge, MD, MPH  
Executive Director

## **Senate Bill 516 Cannabis Reform**

### **MIEMSS Position: Support with Amendments**

**Bill Summary:** Among other things, SB 516 sets up the framework to oversee the regulation of adult-use cannabis and establishes a licensing framework and graduated sales and use tax for the regulated sale of cannabis in Maryland.

### **Rationale:**

- The implementation of cannabis reform in Maryland will likely impact public health and public safety. As many as 57 million instances of driving under the Influence of Cannabis are projected in Maryland each year, as well as other negative health outcomes for individuals, e.g., cannabis-induced suicidal ideations and psychotic or paranoid feelings<sup>1</sup>. In states where cannabis was legalized coupled with retail sales, the Insurance Institute for Highway Safety found that the rate of car crashes increased by nearly 6% and fatal car crashes increased by 4%, although changes in crash rates varied by state<sup>2</sup>.
- There is a clear nexus between the projected increase in adult use of cannabis and potential use of Maryland's emergency medical services (EMS) system.
- Certain components of the State's EMS system are supported by Maryland EMS Operations Fund (MEMSOF)<sup>3</sup>:
  - Maryland State Police Aviation Command
  - Maryland Fire & Rescue Institute of the University of MD
  - R Adams Cowley Shock Trauma Center
  - Maryland Institute for EMS Systems (MIEMSS)
  - The Senator Amoss Fire, Rescue and Ambulance Fund that provides monies for the purchase of fire and rescue equipment and capital building improvements.
- Department of Legislative Services DLS has projected MEMSOF insolvency in FY24<sup>4</sup>. MEMSOF is currently supported by a \$29 biennial vehicle registration fee surcharge that has needed to be increased every 10 years since it is not sensitive to inflation. The last increase was in 2013.
- MIEMSS' amendment will permit a portion of the sales and tax revenues associated with the adult-use cannabis program should be used to support the Maryland EMS System funded through the MEMSOF.

### **MIEMSS Supports SB 516 with Amendments and Asks for a Favorable Report**

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<sup>1</sup> Cannabis Public Policy Consulting. Future Adult Use Cannabis Demand & Predictive Modeling – A behavioral Economic Study. January 5, 2023. See: [https://dlslibrary.state.md.us/publications/Exec/MDH/NMLMCC/HG13-4401\(b\)\\_2022\(d\).pdf](https://dlslibrary.state.md.us/publications/Exec/MDH/NMLMCC/HG13-4401(b)_2022(d).pdf)

<sup>2</sup> Farmer CM, Monfort SS, Woods AN. Changes in Traffic Crash Rates after Legalization of Marijuana: Results by Crash Severity. J Stud Alcohol Drugs 2022 Jul; 83(4): 494-501.

<sup>3</sup> § 13-955 Transp. Art., MD Code Ann.

<sup>4</sup> See: [2024FY - Operating Budget Analysis - MEMSOF\\* - Maryland Emergency Medical System Operations Fund](#)



AMENDMENTS TO SENATE BILL 516

(First Reading File Bill)

On page 4, following line 11, insert new paragraph

“BY ADDING TO

ARTICLE – TRANSPORTATION

SECTION 19-355

ANNOTATED CODE OF MARYLAND

(2020 REPLACEMENT VOLUME AND 2022 SUPPLEMENT)”.

On page 80, following line 19, insert new paragraph

“(5) 1.0% TO THE MARYLAND EMERGENCY MEDICAL SYSTEM OPERATIONS FUND ESTABLISHED UNDER § 13-955 OF THE TRANSPORTATION ARTICLE;”.

On page 85, following line 27, insert

**“Article – Transportation**

13-955.

(a) In this section, “Fund” means the Maryland Emergency Medical System Operations Fund.

(b) (1) There is a Maryland Emergency Medical System Operations Fund.

(2) The Comptroller shall administer the Fund, including accounting for all transactions and performing year-end reconciliation.

(3) The Fund is a continuing, nonlapsing fund which is not subject to § 7–302 of the State Finance and Procurement Article.

(4) Interest and earnings on the Fund shall be separately accounted for and credited to the Fund, and are not subject to § 6–226(a) of the State Finance and Procurement Article.

(c) The Fund consists of:

(1) Registration surcharges collected under § 13–954 of this subtitle;

(2) All funds, including charges for accident scene transports and interhospital transfers of patients, generated by an entity specified in subsection (e) of this section that is a unit of State government; and

(3) Revenues distributed to the Fund from the surcharges collected under § 7–301(f) of the Courts Article; AND

(4) REVENUES DISTRUBUTED TO THE FUND UNDER § 2-1302.2(5) OF THE TAX – GENERAL ARTICLE.

(d) Expenditures from the Fund shall be made pursuant to an appropriation approved by the General Assembly in the annual State budget or by the budget amendment procedure provided under § 7–209 of the State Finance and Procurement Article, provided that any budget amendment shall be submitted to and approved by the Legislative Policy Committee prior to the expenditure or obligation of funds.

(e) The money in the Fund shall be used solely for:

(1) Medically oriented functions of the Department of State Police, Support Service Bureau, Aviation Command;

(2) The Maryland Institute for Emergency Medical Services Systems;

(3) The R Adams Cowley Shock Trauma Center at the University of Maryland Medical System;

(4) The Maryland Fire and Rescue Institute;

(5) The provision of grants under the Senator William H. Amoss Fire, Rescue, and Ambulance Fund in accordance with the provisions of Title 8, Subtitle 1 of the Public Safety Article; and

(6) The Volunteer Company Assistance Fund in accordance with the provisions of Title 8, Subtitle 2 of the Public Safety Article.”.

**SB 516 - FWA - MML.pdf**

Uploaded by: Theresa Kuhns

Position: FWA



Maryland Municipal League  
*The Association of Maryland's Cities and Towns*

# TESTIMONY

March 9, 2023

**Committee:** Senate Finance and Budget & Taxation Committees

**Bill:** SB 516 - Cannabis Reform

**Position:** Support with Amendments

**Reason for Position:**

The Maryland Municipal League supports House Bill 556 with amendments. The League is encouraged by the posture of the bill as introduced and inclusion of local governments as a partner. Municipalities, which will bear a significant burden of implementation, ask to recoup a more reasonable amount of tax revenue and fully exercise local land use authority.

The League respectfully requests an increase in the portion of sales tax revenue distributed to local governments to help recover the costs we reasonably anticipate occurring as a result of legalization. In past years, the Senate has introduced legislation providing a 3% sales tax option for local governments, however this legislation would result in an effective sales tax rate of just .09%.

**To put those numbers in context, if \$1,000,000 is spent on cannabis in a jurisdiction, less than \$900 will return via the sales and use tax formula.** We are concerned that the bill will not provide nearly enough revenue to cover things like:

- Public education, including outreach campaigns and signage.
- Planning and zoning changes, including changes to the Comprehensive Master Plan (generally requires consultants).
- Permitting and licensing of on-site consumption establishments.
- Public consumption enforcement.
- DUI enforcement, including the need to train significantly more DREs and pay overtime for officers that fill the gaps while their colleagues undergo training (only 35 agencies statewide have at least one DRE).
- Any additional resources needed to support cultivation/processing/sales.

1212 West Street, Annapolis, Maryland 21401

410-268-5514 | 800-492-7121 | FAX: 410-268-7004 | [www.mdmunicipal.org](http://www.mdmunicipal.org)

This tax revenue structure pales in comparison to what most states have adopted. Three percent of the full sale price is standard, but states can arrive there by different means. Like HB 556's approach, Michigan applies a uniform statewide tax sales (10%) on cannabis products and diverts a portion to local governments. But Michigan still gives local governments 3% of the full sales price (30% of the revenues collected). It is hard to argue that a tax rate of .09%, or \$900 on \$1 million in sales, is enough to implement this legislation when states like Massachusetts have already had to increase their local rate from 2% to 3%.

The second amendment request seeks the inclusion of municipalities alongside counties as entities that receive and expend Community Reinvestment and Repair Funds in low-income communities and disproportionately impacted areas within their boundaries. Municipal officials are closer to their residents than their county counterparts and in a better position to identify targeted solutions.

The third proposed amendment focuses on local land use authority. The bill's explicit reiteration of local land use authority is strong and recognizes the importance of retaining planning and zoning decisions at the local level. However, one key element is missing: a local opt-out. This is a new business segment and some municipalities, on behalf of their residents, do not want cannabis business operating in their jurisdiction. This opt-out provision is consistent with recreational cannabis frameworks in other states. Allowing a municipality to prohibit the operation of certain cannabis businesses in their city keeps land use decisions local, where they should be.

This bill, with the proposed amendments, provides much needed revenue to offset the increased costs associated with rolling out the recreational cannabis business landscape while also retaining land use at the local level. As such, MML respectfully requests that this committee provide a favorable report on House Bill 556 with amendments.

#### **Amendment language for the Committee's consideration:**

Adding municipalities as entities that receive and expend Community Reinvestment and Repair Funds -

On page 15, line 9:

(b) (1) The comptroller shall distribute funds from the Fund to each county **AND MUNICIPALITY** in an amount that, for the period from July 1, 2002, to [June 30, 2022] **JANUARY 1, 2023**, both inclusive, is proportionate to the total number of [cannabis arrests in the county compared to the total number of cannabis arrests in the State] **INDIVIDUALS RESIDING IN THE COUNTY POLITICAL SUBDIVISION WHO WERE CHARGED WITH A CANNABIS CRIME COMPARED TO THE TOTAL NUMBER OF INDIVIDUALS CHARGED WITH CANNABIS CRIMES IN THE STATE.**

Allowing local governments "opt-out" authority -

On page 49, after line 2 add:

**(3) PROHIBIT THE OPERATION OF BUSINESSES INVOLVED IN THE GROWING OF CANNABIS OR DISPENSING CANNABIS RELATED PRODUCTS.**

On page 49, line 5:

**~~(2) ESTABLISH ZONING OR OTHER REQUIREMENTS THAT UNDULY BURDEN A CANNABIS LICENSEE;~~**

**FOR MORE INFORMATION CONTACT:**

Theresa Kuhns

Angelica Bailey Thupari, Esq.

Bill Jorch

Justin Fiore

Chief Executive Officer

Director, Advocacy & Public Affairs

Director, Public Policy

Deputy Director, Advocacy & Public Affairs

# **3-9-2023 FINANCE COMMITTEE HEARING - CANNABIS REFO**

Uploaded by: Tony Toskov

Position: FWA

## **Green Point Dispensary (Anthony Toskov) TESTIMONY ON SB 516 (HB 556)**

### **Support with Amendments: SB 516 (HB 556) (Cannabis Reform)**

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Green Point Dispensary (GPD) is 100% owned and operated by Anthony Toskov, a life-long Maryland resident. GPD was one of the first medical cannabis dispensaries to become operational in Maryland in 2018. In 2020, GPD opened its second location and is on target to open its third location in June of 2023. We submit these amendments on behalf of our employees, their families, and the communities we serve. We look forward to continuing our support and positively impacting the cannabis industry and the state of Maryland by maintaining an exemplary compliance record at the MMCC/ATCC, as well as increasing the contributions we have made to many Maryland communities and charitable foundations.

We request the following AMENDMENTS to SB 516 (HB 556) before favorable consideration:

1. Allow medical cannabis business owners, who are currently Maryland residents and who have attended Maryland Public Schools, to obtain Adult Use licenses in proportion to the number of Medical Use licenses that are currently allowed per the MMCC regulations (4 licenses). Under the current proposed legislation, for example, dispensaries can only own (2) licenses for Adult Use when many have already owned and operated more than (2) medical licenses.
2. The proposed one-time conversion fee should be percentage based, as opposed to a flat tiered system, and spread out over 3 years. It is a significant disadvantage, for example, for a business that had a gross revenue of \$10M to pay the same fee as an entity whose gross revenue was \$15M. This conversion fee is also much higher than dispensaries will be able to pay, due to the amount of un-financed capital that was needed to open their facilities, current MMCC fees, and the excessive taxation that is assessed because of the 280E rule. The 280E rule is still in effect on the federal return, without any sign of it being released soon, and the state income tax returns have been taxed under that law from 2018-2022. These large fees will also negatively impact the availability of the significant capital needed to convert facilities safely and successfully from medical to adult use.
3. While the annual fee was not specifically set in the legislation, only that it would not exceed 10% of revenue, that cap is of great concern as dispensaries will not be able to pay these exorbitant fees on an annual basis without a detrimental impact to the consumer and the community. With the current 280E rule still in effect for federal income tax returns, cannabis businesses do not earn enough net income to yield such large fees. If fees that large are assessed, many businesses will be forced to reduce expenses, such as wages and benefits they are currently providing to their employees, as well as increase product pricing. The increased pricing will have an adverse effect on the state's ability to eliminate the black market, as well as erase the affordability factor that the current sales tax rate proposal would give the consumer. This inflated pricing, that would have to occur to compensate for extremely high annual fees, will make legal product essentially unattainable for low-income groups, to include veterans and seniors.

Thank you for your time and consideration of these amendments.

**SB 516 - final.pdf**

Uploaded by: Tracey Miller

Position: FWA





CORPORATE OFFICES  
8270 Greensboro Drive, Suite 810  
McLean, Virginia 22102  
703.883.0102

WELLNESS CENTER  
2001 Chapman Ave.  
Rockville, MD 20852

March 9th, 2023

**SB 516 - Cannabis Reform**

Before the Senate Finance Committee

**POSITION: SUPPORT WITH AMENDMENTS**

Dear Chair Griffith and Vice Chair Klausmeier:

My name is Tracey Lancaster Miller, and I am the Executive Vice President of Peake ReLeaf, a cannabis dispensary located in Rockville, Maryland. We are a single location, independent dispensary, owned and operated by local Marylanders. My two business partners and I are the founding members, and we were all born and raised in this state. When legislation changed to create the medical program, we were so excited for the chance to open a license in our home state, and we were fortunate enough to be one of the few Marylanders to win a license.

**CLARIFICATION OF THE NATURE OF MICRO DISPENSARIES**

We appreciate the thoughtful consideration in the creation of licenses with lower barriers to entry. This is important for providing avenues into the legal cannabis industry for those who have been disproportionately affected by the War on Drugs. We do have questions regarding the nature of these licenses, which are not addressed in the bill currently.

Clarification on the nature of micro dispensaries will determine the potential scope and size of these licenses. If micro dispensaries can:

1. have warehouse or commercial space with the ability to do wholesale purchases
2. can deliver to the entire state without geographic limitations
3. can utilize independent contractors instead of relying on employees only
4. have no limits on the amount of product that can be taken out in vehicles at a time
5. can sell at pop up events that are broken down at the end of the night
6. and do not need to follow the same regulatory requirements of standard dispensaries
7. or any combination of these factors

then these licenses can become very large. The number of these licenses awarded should be directly proportional to the scope and size potential of the license, and so we urge a reduction in the proposed number of these licenses, clarification to the intent of these licenses, and restrictions to ensure these licenses fulfill the intent.

## **DELIVERY**

Current medical regulations allow dispensaries to deliver to a residential address. The logistics of creating and staffing a delivery service is a large undertaking which many dispensaries have chosen not to do. We urge the committee to allow converted dispensaries who do deliver to be able to continue to do so. The number of dispensaries that currently deliver is not large enough to have an effect on the success of new micro dispensaries.

## **OWNERSHIP CAPS FOR DISPENSARIES**

Ownership caps may be one of the most important ways that the state can support small, independent licenses like Peake ReLeaf. As an independent dispensary, we feel the effects of consolidation of the market most strongly. We were very concerned about raising the ownership cap on dispensaries to 4 several years ago and would have preferred to see an ownership cap of 2 or 3 instead. No matter what the committee decides on this, we urge that the ownership cap for dispensaries not be raised above 4.

## **COUNTY-BASED LICENSING FOR DISPENSARIES**

While we are not against moving to a county based licensing system, there are details about this system that are incredibly important to consider:

- Will all counties be awarded the same number of new dispensaries?
- Will there be consideration to the number of dispensaries already in a county?
- Will there be consideration to the population within a county for the number of new dispensaries?

Peake ReLeaf is located in district 17, a district with 3 dispensaries. In addition, across the state, districts 11, 16, 18, 21, 24, 26, 30, 42 and 46 all have 3 dispensaries instead of 2. This is because of the class of licenses known as grower-dispensaries, which are dispensaries awarded to growers in the first round of medical licensing and which 11 were awarded.

Growers-dispensaries were not subject to the same senatorial district limitations as standard dispensaries. Grower-dispensaries, simply by receiving a passing score on their application,

could choose any district to locate in without regard to the other 2 dispensaries that score high enough to be awarded a license in the district. This led to the above listed districts with 3 dispensaries.

We urge the committee to consider how allowing grower-dispensaries to locate anywhere continues to affect the market to this day. We urge amendments to the bill to correct the fact that grower-dispensaries have been able to play by different rules than standard dispensaries, being permitted to move to another district at any time upon approval by the MMCC. We also urge consideration of how to prevent bunching of dispensaries, as there are already two areas in the state with very high geographic concentration of dispensaries - Rockville/Bethesda/Gaithersburg area of Montgomery county and Towson/Timonium/Cockeysville area of Baltimore county. Finally, we urge the committee to ensure currently underserved areas of the state do actually see dispensaries open in those areas, and adopt amendments that will create a fair playing field for all dispensaries, including new licensees.

### **CONVERSION FEES FOR DISPENSARIES**

The conversion fees proposed in this bill are incredibly high for an independent license such as Peake ReLeaf. No matter what the conversion fee is, we respectfully request that payment plans be an option. Without payment plans and reasonable fees, only highly capitalized licenses will be able to afford to transition to the adult use market, adding further barriers of entry for independent licensees. An 18 month payment plan has been proposed in the HB 556, and while we appreciate the payment plan, 18 months is not a long enough period to pay such a high conversion fee for small businesses like ours.

The reason why the proposed conversion fees for dispensaries are incredibly high is related to the tax liabilities of this license type. If a grower with a gross revenue of \$5 million is compared to a dispensary with a gross revenue of \$5 million, the economic landscape looks different for dispensaries. Despite a state level fix to 280e last year, many dispensaries are still struggling to pay years of back taxes. There is still no federal fix, which means that dispensaries still have a very high overhead to pay on taxes. No licensee can write off any expenses directly related to the sale of cannabis. So while it does affect all license types, it affects dispensaries the most because essentially all actions at a dispensary are related to the sale of cannabis. Also, the range of gross revenue for single conversion fee is a large range. The profitability of a dispensary doing \$5 or \$6 million in gross revenue is very different from a dispensary doing \$9

or \$10 million in gross revenue. We urge amendments that alter the range for the conversion fee. For example, breaking out the ranges into \$2.5 million segments instead of \$5 million.

In addition, most dispensaries in the state are either not profitable or are just barely profitable and are struggling to pay off years of accumulated debt. Also, the largest portion of dispensaries revenue goes straight toward the cost of goods sold, meaning the majority of the revenue in the state goes to wholesalers, particularly growers and wholesalers with both a grow and processing license. Dispensaries are not making large amounts of money, especially independent operators like Peake ReLeaf. The fees proposed in many cases will be more than what dispensaries like Peake ReLeaf have profited in total since they have been operational, further driving them into debt. Given the greater number of dispensary licenses, dispensaries are being asked to shoulder the larger portion of the social equity fund, even though we have higher fees, due to tax implications and economies of scale, and the majority of revenue goes to wholesalers.

#### **MORATORIUM ON TRANSFER OF OWNERSHIP**

A 5 year moratorium is a long time, and we would urge a reduction in the length of time that a license cannot sell or transfer ownership. A 3 year moratorium from the time a licensee becomes operational is in line with the medical program. We also urge converted licensees to be considered as fulfilling their moratorium already, as most have already been operating for 5+ years.

#### **ADEQUATE SUPPLY FOR MEDICAL PATIENTS**

Retaining access and supply for medical patients when adult use sales begins is so important. While we appreciate the consideration this bill has put toward this, we urge that dispensaries not be required to have operational hours to serve only medical patients. The reason for this is it is difficult to know what operational hours most medical patients would want or need in specific areas, and to have a store open but need to turn certain people away to come back at certain other times will provide a lot of opportunities for anger and distress from the community and for employees of dispensaries.

We urge the committee to consider instead express lines for medical patients, where they would be checked in ahead of adult use consumers and checked out ahead of adult use consumers. This can be done through language requiring express lanes or by requiring 1 medical line for

every 5 adult use lines. Many states have implemented these express lines with success, including Massachusetts.

In addition, the bill requires dispensaries to retain adequate supply for medical patients. While dispensaries determine patient or consumer access to products, grower and processor licenses are the ones that determine supply of a market. A dispensary can only retain an adequate supply first if there is adequate supply at reasonable pricing in the market generally, and second and more specifically that the supply is actually made available to and received within a reasonable time to a dispensary. The responsibility of medical patient supply should not be solely put on dispensaries - it should be shared among license types, as failure of one license type to produce and make available adequate supply at reasonable pricing sets all other licenses up for failure too.

### **PACKAGING AND REPACKAGING AT A DISPENSARY**

There was an amendment introduced to HB 556 that would revoke the ability of dispensaries to package and repackage products. Medical regulations have allowed dispensaries to handle bulk flower since the inception of the program in this state. There are strict regulations in place to prevent and detect diversion at every type of facility. Detailed standard operating procedures have been approved for the handling of bulk flower at all types of facilities as well, including dispensaries. The mandatory state seed to sale tracking system ensures that any inventory discrepancies at any license are fully investigated. Many dispensaries including Peake ReLeaf were designed with specific operational zones to weigh and store bulk flower and incurred significant costs to build our facility adhering to strict regulations provided by the state. State regulation would require a licensee to shut down operations in order to begin construction in an attempt to repurpose the now unusable space.

Working with bulk flower provides dispensaries an additional opportunity for quality control and allows staff more transparency with patients as they are able to see the quality of the product. The prepackaged containers that flower is weighed into are not meant for long term storage. The quality of the product degrades as oxygen seeps into industry standard containers, so it is important that product does not sit in these containers for too long before being sold. Bulk flower also reduces the environmental impact of the cannabis industry by allowing patients to receive the quantity of flower in a single container.

Bulk flower at dispensaries is one of the main ways that dispensaries can offer more affordable flower to patients by offering discounts on higher amounts purchased like with any other commodity. Patients receive the benefit of cheaper flower because this allows growers to sell large quantities quickly, not only streamlining the process but by dispensaries taking on the additional costs of labor and packaging when caring for and distributing the flower. Without bulk and scaling discounts, the price of flower will increase dramatically.

Most importantly, revoking a dispensary's ability to handle bulk flower would result in a large loss of jobs in the industry. Peake ReLeaf has been a trusted source for patients to receive their flower because we provide additional care into the bulk flower we receive. It is by trimming and storing flower in sealed containers with moisture packs in a temperature and humidity controlled vault. Separating smaller flower and shake and making higher quality prerolls while saving the highest quality flower for patient purchase. It is only through the hard work from our dedicated staff at Peake ReLeaf and our access to bulk flower that we can offer the exceptional quality and value that we provide our patients. As an independent dispensary with no grow or processing licenses, it is one of the only ways we can set ourselves apart. Our staff are hardworking, trusted individuals whose livelihoods and benefits are directly linked to a dispensary's ability to weigh, store, make prerolls and audit flower for almost 5 years now. The staffing implications of selling only prepackaged flower would result in needing to lay off about one third of our workforce.

### **RECIPROCITY FOR VISITING MEDICAL PATIENTS**

Visiting medical patients should be permitted to utilize the state's medical cannabis program while they are in the state or more importantly while receiving treatment. Patients travel from all over the country to receive treatment in Maryland's state of the art hospitals and medical systems, and medical patients from other states currently cannot obtain the medicine they rely on here. Adults may have access to cannabis products once adult use sales begin but only in potencies lower than they may need. Adult visiting patients also will have to pay taxes to receive the medicine that in state patients receive tax free. Most importantly of all, visiting pediatric patients and their caregivers receiving treatment will not have access to cannabis in any form without changes to the current medical program to allow reciprocity. Medical cannabis is a life changing and life saving medicine for people across the country. As a leader in healthcare nationwide, it is Maryland's responsibility to treat patients in the most effective way possible. For

those reasons, we recommend amending this bill to include reciprocity language from **HB 1172 / SB 671 - Medical Cannabis - Visiting Patients.**

Respectfully submitted,

Tracey Lancaster Miller  
Executive Vice President  
Peake ReLeaf

# **Comment on Cannabis Bill SB 0516.pdf**

Uploaded by: Tyler Van Wingerden

Position: FWA





Chair Melony Griffith  
Senate Finance  
Miller Senate Office Building  
Annapolis, MD 21401

**Reference: SB0516 - Favorable with Amendments**

By:  
Tyler Van Wingerden  
Blake Van Wingerden

Dear Chairs and Members,

Catoctin Hemp is a family business located north of Frederick, MD. We started in 2019 when there was an opportunity to do research with the hemp plant. We partnered with the University of Maryland and started to work on understanding the hemp plant and how it can be used in Maryland's agriculture.

Since 2019 we have become much more educated about the hemp plant and the industry that has been built up around it. Our family business now grows, processes, and extracts hemp plants. We also formulate the extract into non-intoxicating products that are now being used by hundreds of customers to help with pains and ailments.

Catoctin Hemp is not a part of the 75% other CBD hemp extract producers who are participating in the Delta-8 and other loophole intoxicant market.<sup>1</sup> We have been operating by both the letter and intent of the law. We strongly believe that all intoxicating products should be under the jurisdiction of the MMCC (now ATCC). What constitutes an intoxicating product is the distinction that requires clarity for efficient and effective regulation. There is precedent in other states to look at the ratio of CBD to THC as an indicator on whether or not the product is intoxicating. Colorado is a leader in the nation in regards to regulating cannabis and hemp products. Under SB22-205, the state set up a Task Force to conduct a study on the distinction between intoxicating and non-intoxicating hemp products. Based on their findings, they established a limit of 2.5mg of total THC per serving AND a 15:1 CBD to THC ratio or higher.

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<sup>1</sup> <https://mjbizdaily.com/2022-us-hemp-harvest-projected-to-shrink-by-nearly-half-of-2021/>

It is our request that Maryland take into consideration the ratio of CBD to THC in the products that hemp companies sell as well as a milligram limit per serving. The ratio we recommend, based on the Colorado Task Force findings, is 15:1, CBD to THC (includes all forms of THC), and the milligram limit per serving is 2.5 mg of total THC per serving. By following the guidelines set in Colorado, Maryland will be able to ensure that non-intoxicating hemp products will still be available to licensed hemp farmers and producers. The Task Force says on page 19 of its report, “the Task Force recommends that a milligram potency limit per serving coupled with a CBD:THC ratio is currently sufficient to guard against intoxicating hemp products from being sold within Colorado and no container limit is recommended at this time.”<sup>2</sup>

Thank you for your consideration, we are looking forward to growing the non-intoxicating Hemp products industry in Maryland.

Respectfully submitted,

Tyler Van Wingerden  
Founder and COO  
Catocin Hemp

Blake Van Wingerden  
Founder and CFO  
Catocin Hemp

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<sup>2</sup> SB22-205 Task Force Final Report, page 19

# **D8 and D8 CBD\_THC Ratios - Sheet1.pdf**

Uploaded by: Tyler Van Wingerden

Position: FWA



Below is a list of a small sampling of Delta-8 and Delta-9 products. This list serves an example of how Delta-8 and Delta-9 products will not meet the proposed CBD to THC ratio limit

Product Name	Company	CBD per Serving (mg)	Delta-9 THC Per Serving (mg)	Delta-8 THC Per Serving (mg)	Total THC Per Serving (mg)	CBD:THC (total) Ratio	URL to Product
Georgetown Hemp Delta 8 Gummies	Georgetown Hemp	None	None	25	25	No CBD	<a href="https://www.georgetownhemp.com/gth-delta-8-gummies-25mg-per-gummy.html">https://www.georgetownhemp.com/gth-delta-8-gummies-25mg-per-gummy.html</a>
Georgetown Hemp MoonWlkr CBD:THC Gummies	Georgetown Hemp	25	5	-	5	5:1	<a href="https://www.georgetownhemp.com/copy-of-moon-wlkr-cbdthc-gummies-atlas-750mg-cbd-1.html">https://www.georgetownhemp.com/copy-of-moon-wlkr-cbdthc-gummies-atlas-750mg-cbd-1.html</a>
Delta 9 THC Gummies	cbdMD	77	10.5	none	10.5	7:1	<a href="https://www.cbmd.com/delta-9-gummies-10-mg-20-count-cherry">https://www.cbmd.com/delta-9-gummies-10-mg-20-count-cherry</a>
Delta 8 MAx Gummies	Hometown Hero	None	None	100	100	No CBD	<a href="https://hometownherocbd.com/products/delta-8-max-gummies-green-apple">https://hometownherocbd.com/products/delta-8-max-gummies-green-apple</a>
3CHI Delta-8 Watermelon Gummies	Cannabuddy	None	none	6	25	No CBD	<a href="https://cannabuddy.com/product/3chi-delta-8-watermelon-gummies-400-mg-total-delta-8-thc/">https://cannabuddy.com/product/3chi-delta-8-watermelon-gummies-400-mg-total-delta-8-thc/</a>
KOI Delta-8 THC Tincture	KOI CBD	None	0.96	32	33	No CBD	<a href="https://koicbd.com/delta-8/tinctures/">https://koicbd.com/delta-8/tinctures/</a>
50mg Delta 9 THC Cookie	Ounce of Hope	None	8	none	8	No CBD	<a href="https://www.ounceofhope.com/product/delta-9-snickerdoodle-cookies/">https://www.ounceofhope.com/product/delta-9-snickerdoodle-cookies/</a>
Delta 8 THC Cartridge	Delta 8 US	None	None	929	929	No CBD	<a href="https://www.binoidcbd.com/collections/binoid-cbd-collection/products/delta-8-thc-vape-cartridge">https://www.binoidcbd.com/collections/binoid-cbd-collection/products/delta-8-thc-vape-cartridge</a>

# **SB 516 - Maryland Legal Aid - FAV-Amendment.pdf**

Uploaded by: Victoria Schultz

Position: FWA



**MARYLAND  
LEGAL AID**

*Advancing*  
**Human Rights and  
Justice for All**

**Senate Bill 0516**

**Cannabis Reform**

In the Senate Finance Committee

Hearing on March 9, 2023

**Position: FAVORABLE**

Thank you for the opportunity to testify on this bill. I am Vicki Schultz, Executive Director of Maryland Legal Aid (MLA). MLA, as the largest provider of civil legal services in our State, supports the bill and requests a friendly amendment to dedicate 10% of cannabis tax revenue to the Maryland Legal Services Corporation (MLSC). MLSC grantees including MLA provide vital legal services to the residents of communities most impacted by this failed war, including the racially and economically disproportionate enforcement of cannabis prohibition.

As many of you know, MLA is a nonprofit law firm that last year alone provided free legal services to more than 80,000 low-income and vulnerable Marylanders. Our 12 offices serve residents in each of Maryland's 24 jurisdictions and handle a range of fundamental civil legal matters, including housing, family law, public benefits, bankruptcy, debt collection, and criminal record expungements. Our clients with cannabis arrests and convictions face challenges in each of these arenas and more—challenges that will not disappear simply because we have legalized cannabis. Ongoing support of civil legal services will make the promise of HB 556 real for our most vulnerable residents.

**Civil Legal Aid: A Cost-Effective Anti-Poverty Tool to Achieve Social Equity that Delivers Results**

Providing legal services to people and families who live in impacted communities is not only the right thing to do. It is an effective anti-poverty strategy that will achieve greater social equity, address the harm of our failed drug policies, and provide a return on investment for all Maryland residents. Studies have shown that civil legal aid provides \$6 of benefit for every \$1 dollar spent.

**Ongoing Harms from Disproportionate Enforcement of Cannabis Prohibition**

The impacted communities the bill seeks to address are our client communities – the communities MLSC grantees serve – which face disproportionate harms due to decades of over-policing and underinvestment as a result of the war on drugs. Cannabis may be legal now, but tens of thousands of people still face legal peril because of it. We can't just ignore that.

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Those harms adversely impact our clients' lives every single day, resulting in urgent civil legal issues such as:

- Higher rates of eviction and/or foreclosure and higher instances of unsafe, unhealthy, and unstable housing
- Predatory lending and illegal consumer practices that drain intergenerational wealth
- Disproportionate school discipline fueling the school-to-prison pipeline
- Complex family law issues, including child custody and increased state involvement
- Expungement assistance
- Wage theft
- Lack of access to basic services and supports like unemployment insurance, social security benefits, veterans' benefits and food stamps

### **Providing Civil Legal Aid Ensures that No Marylander is Left Behind**

Our clients targeted and impacted by cannabis prohibition deserve legal assistance and representation to address their most fundamental, basic needs. Additionally, civil legal aid issues are not unique to urban areas. MLSC has grantees across the entire state, from Western Maryland to the Eastern Shore and everywhere in between, to ensure no Marylander is left behind.

With legal help, people can access decent housing, jobs, food, and critical family supports to thrive. Research shows that the provision of legal services not only helps an individual with their legal case, it leads to more long-term solutions and helps to address systemic social ills.

While it is true that the cannabis bill provides for expedited expungement of certain cannabis-related records, expungement assistance alone doesn't fix all the missed economic, educational, wealth-building, and social opportunities of a criminal record. Nor does it address the legal issues and harms residents of disinvested communities face, including those listed above.

### **The Ongoing Challenge: Filling the Justice Gap**

On average, MLA attorneys and other MLSC grantees are *the lowest paid* publicly funded, public interest lawyers in our state.

Despite our collective best intentions, we cannot help our communities without staff to do the work. This is where our aspirations to be a society that provides equal justice for all too often falls short. The justice gap is real and the consequences for people living in poverty are stark when a person must face the legal system alone because they don't have the money to pay a lawyer, and there are not enough legal aid lawyers to step in that gap.

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MLA is deeply committed to addressing the urgent access-to-justice crisis by delivering the high-quality legal services its clients need and deserve. To accomplish this, MLA must be able to hire excellent new staff members and retain its experienced staff.

However, due to national labor shortages, the highest inflation rate in over 40 years, and rising state and federal salaries that have well outpaced MLA salaries, MLA has had significant difficulties filling vacancies and retaining its staff. Nonprofit legal services provider organizations, like ours, have not been able to keep pace with other publicly funded, public interest lawyers such as those in the Office of the Public Defender or the Office of the Attorney General.

Parity with these other publicly funded, public interest lawyers is essential to assure MLA and other MLSC grantees can meet the legal needs of people living in impacted communities. With a history of compressed salaries, MLA has lost ground recently, even with its peers – publicly funded, public interest lawyers working for the state. We routinely lose interested and talented applicants due to salary constraints as a result. Of course, we fully support the salary increases for our fellow social justice fighters; our client populations overlap significantly, and our work is complementary. But that means there should be consistent, equitable access to representation when our clients, sadly, move between their criminal, civil, and other challenges.

Parity also means equity in hiring. Low pay means that talented advocates are excluded because they can't afford to do this important work. Employees who have access to generational wealth or live in two-income households may be able to afford to accept a lower legal services salary but many employees who are first-generation—lawyers or college graduates—cannot afford to do so particularly when public interest work for the state pays significantly higher salaries and still offers public loan forgiveness. That also can mean that our lawyers don't look like our communities, which harms our ability to connect with and represent clients.

### **MLA Urges a Favorable Report with the Proposed 10% Amendment for MLSC**

Maryland Legal Aid asks the committee to report this bill favorable with a friendly amendment that would provide 10% of cannabis tax revenues to MLSC. We stand ready to be a resource to the committee and to provide any further information or assistance needed.

Respectfully submitted,

Vicki Schultz

Executive Director, Maryland Legal Aid, [vschultz@mdlaborg.org](mailto:vschultz@mdlaborg.org), 443.850.6605 (cell)



# **Cannabis Industry Articles\_Economic Climate & Decl**

Uploaded by: WENDY BRONFEIN

Position: FWA

## **OVERSUPPLY – ARTICLES**

**March 1, 2023**      **Cannabis Business Times**  
<https://www.cannabisbusinesstimes.com/news/green-thumb-ceo-2022-financial-report/>

**February 11, 2023**      **NY Post**  
<https://nypost.com/2023/02/11/illegal-weed-is-killing-licensed-california-bud-shops/>

**February 8, 2023**      **Burns Levinson**  
[Moving Markets: Declining Economic Conditions in Western States Lead to Curaleaf Exit](#)

**January 30, 2023**      **Marketwatch**  
[Is the cannabis gold rush over? Moves by Curaleaf, Ayr, Akerna and other companies point to tough times.](#)

**January 3, 2023** **Dig Boston**  
[Why Are Cannabis Prices Really Crashing?](#)

**December 30, 2022**      **The Washington Post**  
[How the marijuana 'green rush' fell apart](#)

**December 26, 2022**      **Cannabis Business Executive**  
[Oregon Cannabis: State of the State](#)

**December 25, 2022**      **Politico**  
[A national weed glut is causing prices to plummet and imperiling businesses](#)

**December 19, 2022**      **Bloomberg**  
[Cheap Weed Has Become a Big Problem in the Pot Industry](#)

**December 2, 2022**      **Cannabis Business Executive**  
[As Michigan Cannabis Industry Matures, Demand for Capital Surges](#)

**November 30, 2022**      **9 NEWS – CO Local TV**  
[Colorado marijuana industry experiencing 'largest downturn that we've ever seen'](#)

**November 7, 2022**      **MJBiz Daily**  
[Cannabis growers report bumper harvest amid overproduction, low prices](#)

**September 4, 2022**      **Politico**  
[Why weed companies can't make money](#)

**October 31, 2022**      **MJBiz Daily**  
[Marijuana growers in mature markets call for license moratorium amid falling prices](#)

**August 31, 2021**      **Forbes**  
['It's Gonna Be A Bloodbath': Epic Marijuana Oversupply Is Flooding California, Jeopardizing Legalization](#)

**June 27, 2022**      **MJBiz Daily**  
[Adult-use marijuana companies struggle to stay afloat amid overproduction, falling prices](#)

**May 6, 2019**      **Forbes**  
[The Giant Cannabis Problem No One Saw Coming](#)

## OVERSUPPLY – ARTICLE EXPERTS

March 1, 2023 Cannabis Business Times

<https://www.cannabisbusinesstimes.com/news/green-thumb-ceo-2022-financial-report/>

“.. the cannabis industry—like many others—faced an inflationary environment that affected consumers’ pocketbooks, high interest rates that further squeezed access to capital, and concerns of a recession, Green Thumb CEO and Chairman Ben Kovler said in a conference call with shareholders on Tuesday.

‘also want to point out that concerns around price compression in our industry are very real,’ he said. “The days of fat margins and easy money in cannabis are waning. As people digest punitive tax rates and the high cost of capital, the dollars run out and margins slip. We are in the midst of a washout that will leave the industry with fewer operators, not more. This is ironic, as politicians and operators are talking about including more folks, not less.”

As Section 280E of the U.S. tax code continues to target cannabis businesses by depriving them of the same deductions and credits on expenses that are offered to other American businesses, there is an inadequate cash flow for “the marginal player,” Kovler said.

“...cash flow generation and balance sheet management are critical components of long-term success.”

“What does worry me is the dimming promise for fresh participation in the industry, especially for Black and Brown entrepreneurs,” Kovler said, adding that social equity licensees are often left “pretty helpless” in an industry that has severely restricted access to capital.

“We believe everyone would benefit from a solution to these problems from the federal government,” he said.

“Consumers would have more buying options, a new cohort of entrepreneurs would emerge, communities would thrive from new business formations, and existing operators could expand product distribution.”

February 8, 2023 Burns Levinson

[Moving Markets: Declining Economic Conditions in Western States Lead to Curaleaf Exit](#)

“Recent economic conditions in mature and established cannabis markets have led major players to bow out due to oversaturation in search of more opportunistic emerging markets”

The California market has been troubled by several contributing factors, making it a particularly challenging market for a wholesale cultivator....cannabis price decline due to market oversupply and competition...without having a cap on cultivation licenses, the price floor for wholesale cannabis can drop much lower, particularly where California has limited retail space to sell the cannabis surplus.

“Cannabis companies currently operate in a challenging and distressed market, given the current state of the economy, so limiting certain challenges ... can mean life or death for some companies.”

January 3, 2023 Dig Boston

[Why Are Cannabis Prices Really Crashing?](#)

“The cannabis industry is populated with people who often don’t understand the fundamentals of business and do not grasp the industry construct of cannabis...supply gluts in one state drive prices down while supply constraints in another keep prices high.”

“Excess supply is not the cause, it is a symptom. The cause is the market not realizing when there is enough production capacity available and so the industry continues to roll forward until prices crash. By then it is too late. “

December 30, 2022 Washington Post

[How the marijuana 'green rush' fell apart](#)

*"The legal cannabis trade, still in its infancy, is flailing in many parts of the country as the pandemic boom that sent sales soaring has tapered off. Supply is now flooding the market in several states, depressing prices and decimating already-thin margins"*

*"2022 marked the first year that any state recorded a decline in tax revenue from cannabis sales, and it occurred in five with relatively mature markets, according to a September report from The Urban-Brookings Tax Policy Center. In Colorado, sales were down every month compared with 2021, while retail prices tumbled 22 percent year-over-year. In California, tax revenue dropped year-over-year. And wholesale prices have fallen steadily in Oregon all year."*

*"When the industry was so new, there was sort of a sure bet," said Brian Lewandowski, executive director of the business research division at the University of Colorado at Boulder's Leeds School of Business. "Anybody could walk in and make money in this business and we saw people become millionaires overnight. But now it's competitive and you have to have a lot of business acumen."*

*"Lewandowski sees it as a natural settling in the market, one that is bound to be painful for some businesses."*

*It's a perfect storm, said Robin Goldstein, director of the Cannabis Economics Group at the University of California at Davis. "It's a cumulation of too much production and falling prices," he said.*

*"While oversupply might be the sector's most immediate challenge, it has other, more entrenched ones. Cannabis retailers are barred from many of the tax breaks and deductions commonly used in other industries. Other small businesses, for example, can write off as much as 20 percent of their qualified income."*

*"Cannabis is right now in a situation where almost nobody's making money and people are, in fact, losing enough every day that they're very concerned that they may not be able to last until [the market] comes back," said Dan Sumner, an agricultural economist at the University of California at Davis, who with Goldstein co-wrote the book, "Can Legal Weed Win?: The Blunt Realities of Cannabis Economics."*

December 26, 2022 Cannabis Business Executive

[Oregon Cannabis: State of the State](#)

*"It may be no consolation, but what we're seeing today in Oregon is endemic to regulated cannabis jurisdictions nationwide. Other than pain points arising directly from federal illegality (e.g. financial services headaches; tax burden), problems include: oversupply, unregulated competition, a generalized lack of consumer responsiveness to lower pricing, and even macroeconomic factors like higher gas prices. All of that said, it could always be worse. see [Colorado](#)."*

December 25, 2022 Politico

[A national weed glut is causing prices to plummet and imperiling businesses](#)

*"Michigan has way too much weed...state's recreational market has almost doubled in the past year. The number of active marijuana plants now exceeds 1.2 million, roughly six times the volume seen in 2020."*

*"... Michigan has enough cultivation capacity to supply three times as much weed as the state's consumers are buying..."*

“Michigan is emblematic of what’s been happening across the country all year — and why the industry’s been in a funk even as legalization spreads: Ill-fated hopes that a Democratic-controlled Washington might loosen decades-old restrictions on the drug have given way to a market glut and plummeting prices that have put scores of businesses at risk of collapse.”

“In Colorado, prices have dropped by 51 percent ... The price of a pound of weed has plunged by 36 percent in Massachusetts and 46 percent in Missouri ...”

“The slump is messy enough in Michigan that some industry officials are calling for a moratorium on cultivation licenses three years after the state launched a recreational market.”

“ ‘With the glut of supply, and with so many licenses, it’s setting up businesses for failure,’ said Beau Whitney, an economist who focuses on the cannabis industry... ‘Nationally, very few people are making a profit in this industry’.”

**December 19, 2022**     **Bloomberg**

[Cheap Weed Has Become a Big Problem in the Pot Industry](#)

“Marijuana keeps getting cheaper, and that’s becoming a growing problem for the industry... Retail and wholesale prices have fallen as competition with the black market puts pressure on legal retailers to keep prices low, and this is making it hard for growers to get the supply-demand balance right... ‘The industry today is facing a number of headwinds. The most existential is pricing,’ said Rick Maturo, director of insights and intelligence for cannabis-data firm BDSA...”

**December 2, 2022**     **Cannabis Business Executive**

[As Michigan Cannabis Industry Matures, Demand for Capital Surges](#)

“As new players entered the market, production increased while demand stayed relatively stable... The oversupply of marijuana to the recreational and medical systems has particularly impacted companies at the grow level, where new cultivators have flooded the field. That same pattern has echoed across the other legal cannabis markets in the U.S.

With product outpacing demand, prices have fallen dramatically — a trend yet to show signs of slowing.

“...with an increasingly competitive landscape... companies are now clamoring for investment — a gap that many institutions are still unwilling to fill.”

**November 30, 2022**     **9NEWS, Colorado Local TV Station**

[Colorado marijuana industry experiencing 'largest downturn that we've ever seen'](#)

“Marijuana sales have declined for more than a year in the state, threatening public programs funded by the tax revenue the sales produce... marijuana sales are now seeing record lows.”

“Right now, the Colorado marijuana industry is going through the largest downturn that we’ve ever seen... expect that to continue into the coming year.”

“So why is this all happening now? It starts with supply and demand.”

“The medical market is down about 47% statewide and the recreational market is down about 20%.”

“In Colorado, the wholesale price of marijuana is at a record low. Today, it costs \$658 per pound. That’s half the price compared with this time last year, when it was selling for \$1,316.”

"The price of marijuana is at the lowest since the recreational marijuana was legalized in Colorado...the decrease in price is a result of the increase of supply of marijuana."

September 4, 2022 Politico

[Why weed companies can't make money](#)

"...most weed companies [from] continuing to hemorrhage red ink nearly a decade after Colorado and Washington became the first states to establish legal markets for anyone at least 21 years old. An analysis by POLITICO of financial filings from two dozen of the largest publicly traded U.S. operators shows that they collectively lost more than \$550 million in the first six months of this year on revenues of nearly \$4.5 billion.

"The cost of doing business for weed companies is just much higher than any other business."

"Arguably the biggest barrier to making money is the sky-high taxes weed companies pay because they're treated like illegal narcotics traffickers under the federal tax code. The goods also cannot cross state lines, and that lack of interstate commerce means companies must build separate farms, factories and stores in each state where they do business and navigate a rapidly evolving patchwork of state regulations. Finally, raising capital is extremely expensive due to a dearth of financing options, an issue both Republicans and Democrats in Congress recognize but have yet to address."

"Another factor exacerbating the current financial malaise: Companies spent heavily last year to expand capacity due to misguided optimism about the prospects for loosening federal marijuana restrictions after Democrats won control of Congress and the White House. That's led to a glut of product and plunging prices in many of the largest state markets like California, Colorado, Michigan and Massachusetts. Those struggles are being compounded by inflation and an illicit marijuana market that remains robust in many states."

"Realistically, it's still a bit too early in the game to be expecting anybody to be really making money, because all of these guys are still in investment phase," said Jon Decourcey, director of equity research at Viridian Capital Advisors. "It should be expected that it would be taking time to [have] those investments bear fruit in terms of actual profits."

October 31, 2022 MJBiz Daily

[Marijuana growers in mature markets call for license moratorium amid falling prices](#)

"Calls are increasing among marijuana growers to stop licensing new cultivation businesses... and others in the industry are appealing to their regulators and lawmakers to help cultivators struggling financially because of overproduction of flower and depressed prices on the wholesale market...argue that too much production makes it impossible to survive as a cannabis grower.

August 31, 2021 Forbes

['It's Gonna Be A Bloodbath': Epic Marijuana Oversupply Is Flooding California, Jeopardizing Legalization](#)

"...according to interviews with industry experts, is grow entirely too much cannabis. Exact figures are not known, but according to one rough estimate, California's legal cultivators grow more than three times as much cannabis as is sold in legal dispensaries."

"Whatever the exact figure, the common belief is that it's so much cannabis that the market is flooded, prices are crashing, and legal growers—in the red this year—may finally be forced out of business."

"But if that's true, and if there's too much weed grown in the state—where is the California cannabis going?"



No one but state regulators and law-enforcement (and whomever is moving the stuff) can say for certain, but the conventional wisdom is that it's either being sold off-books within state lines for half the price of heavily taxed legal cannabis—or it's appearing in New York, Florida, and other states where California cannabis fetches a premium.”

“There are loosened regulations after legalization that allowed for massive grows.”

June 27, 2022

MJBiz Daily

[Adult-use marijuana companies struggle to stay afloat amid overproduction, falling prices](#)

“As mainstream businesses cope with surging inflation and the threat of a recession, many adult-use marijuana companies – growers, retailers and ancillary businesses alike – are struggling with their own host of problems.”

“Falling prices and a product glut ... forcing companies out of business, triggering layoffs and setting off an industrywide scramble to stay afloat.”

“According to the Colorado Department of Revenue, marijuana sales in April totaled \$153 million, a 25% decline from April 2021. The price of wholesale cannabis flower is also down – 43% in the first quarter of the year compared to a year earlier.”

“Colorado cannabis retailers have also reported heavy oversaturation in the retail space ...”

“The situation has been just as bad for growers ... market price for a pound of wholesale marijuana flower has dropped from \$1,600 this time last year to about \$800 ... many of the smaller cultivators with 3,500- to 5,000-square-foot grows are likely to go out of business ... ‘Marijuana grows are selling for pennies on the dollar, if they’re selling at all’ ...”

May 6, 2019

Forbes

[The Giant Cannabis Problem No One Saw Coming](#)

“When states started legalizing cannabis, lawmakers worried about setting fees and rules for licensing and legislating where cannabis dispensaries could set up shop. The last thing they thought they needed to worry about was an oversupply of cannabis.”

“To say that Oregon has something of an oversupply issue is a vast understatement. The state’s authorities estimate that demand in the adult use cannabis space is running at just 50% of the supply ...sitting on approximately 1.3 million pounds of cannabis that it can’t shift... — enough to last until mid-2025 without the state having to grow one more plant.”

“Oregon’s cannabis policies are partially to blame here....lawmakers set about lowering the barriers to entry with rock-bottom license fees and taxes, and removed caps on the number of licenses.”

“But demand in the state hasn’t come close to keeping up with supply. There are just over 4 million people in Oregon, but they would each have to buy 5.2 ounces of cannabis today to clear the 1.3 million pound surplus. (For some perspective, an average dose of cannabis is .25g to 1g of dried cannabis.)”

Neighboring Washington, the first state to legalize adult use of cannabis in 2012, is in a similar position. ... rock-bottom price of cannabis in Washington is a sign that something is wrong... Washington has issued around 1,500 licenses for producers and processors, and their combined ‘canopy’, or grow area, is yielding far more flower than retailers can sell.”

**ey-cannabis-coe-viridian-report-fy-2022-v07-final.**

Uploaded by: WENDY BRONFEIN

Position: FWA



# The cannabis capital flow

A full-year 2022 review of capital  
market transactions



# About Viridian

Viridian Capital Advisors, LLC ([www.viridianca.com](http://www.viridianca.com)) was established in 2014 as one of the first, and now leading, corporate finance, M&A and research practices in the legal cannabis and CBD industries, and now covering the Psychedelics sector. We represent companies, investors, lenders, sellers and acquirers. Through our broker-dealer, Bradley Woods & Co. Ltd., our investment banking practice raises capital, executes M&A transactions and provides corporate restructuring services for our clients. Our strategic advisory practice prepares clients to access the capital markets by building a proper Board of Directors, financial models, sophisticated valuation analyses, M&A strategies and business development opportunities.

Viridian is widely recognized as the industry leader in research, capital markets data, and financial market intelligence on cannabis/CBD/Psychedelics companies. We recently won the Best Industry Research award from Benzinga, the leading financial marketplace for the industry. This was awarded for the Viridian Cannabis Deal Tracker, which launched in January 2015 as the leading proprietary data service that monitors and analyzes investment, M&A, and buy-side trends in the industry. The Deal Tracker has become the trusted and valuable source for cannabis companies, investors, lenders and sellers/acquirers to make informed capital allocation decisions.

# About EY

EY exists to build a better working world, helping create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

EY's Cannabis Centre of Excellence (CoE) is designed to assist cannabis clients with their greatest business challenges. The CoE serves cannabis operators in federally permissible jurisdictions, regulatory bodies and adjacent industry players (CPG, beverage/alcohol, tobacco, pharma) and provides specialized knowledge across the cannabis value chain.

The CoE aims to be the sector's preeminent thought leader, further professionalize the industry and help clients grow and become global leaders.



# Executive summary: 2022 review

↑ **+24%**

Canadian legal cannabis market growth (2021 vs 2022)

↑ **+23%**

US legal cannabis market growth (2021 vs. 2022)\*

↓ **-68%**

Change in total value of capital raised (2022 vs. 2021)

↓ **-73%**

Change in total value of M&A activity (2022 vs. 2021)

## US cannabis market at a glance

**The US is the cannabis world leader** – US legal cannabis sales reached \$26b in 2021, up from \$20b in 2020. Sales are projected to reach \$47b by 2025, with expectations that federal legalization will occur in 2026 or later.

**Cannabis market growth outperforms adjacent industries** – In comparison to other comparable US markets such as alcohol (\$74b in 2021) and tobacco (\$142b in 2021), the legal cannabis market is smaller (\$26b in 2021), but is showing faster growth rates, with a CAGR of 35.4% since 2016, compared to -0.4% for tobacco and -1.7% for alcohol.

## North American cannabis M&A activity

**M&A activity is decreasing** – The quantity and size of deals have decreased since 2021, as companies are saving cash and avoiding purchases that would decrease the value of their stock. However, the fall in the value of public and private companies is still attracting strategic buyers from within the cannabis sector and potential buyers from adjacent sectors.

**Cultivation and retail is the leading market segment** – Even though M&A activity has decreased, the cultivation and retail segments are still the most desirable areas for investment and lending, resulting in the highest concentration of deals throughout the cannabis value chain.

Source: Viridian Capital Advisors, New Frontier Data, MJBiz, EY analysis.

3 – The Cannabis Capital Flow – 2022



## North American cannabis capital raises & financing

**Capital raising activity is decreasing** – The total value of equity raises declined by 76% in 2022, followed by the total value of debt raises decreasing by 56% in 2022. Recent industry losses and slow political developments have rendered capital raising more challenging.

**While total activity is decreasing, debt financing activity has now surpassed equity** – The fall in stock prices has made it difficult to raise capital through large equity offerings, which are mostly limited to non-plant-touching segments. As a result, debt financing has become a more practical way to obtain funding for expansion, contributing to the number of debt raises surpassing equity raises for the first time.

**California and New York remain leaders for capital raises** – Even though capital raise rates have decreased, mature states like California and nascent states like New York, New Jersey and Missouri continue to attract a significant share of investment interest.

\* New Frontier Data estimates the size of the unregulated cannabis market in 2021 to be approximately \$70b.



# Executive summary: year-over-year trends

In US\$m

Mergers and acquisitions	2019	2020	2021	2022
# of deals	259	86	222	158
\$ amount	\$5,905.8	\$3,727.5	\$17,455.4	\$4,675.7

Capital raises – Equity raises	2019	2020	2021	2022
# of raises	339	211	316	132
\$ amount	\$7,772.9	\$2,584.9	\$7,004.1	\$1,649.3

Capital raises – Debt raises	2019	2020	2021	2022
# of raises	148	75	118	110
\$ amount	\$3,117.0	\$1,558.9	\$5,395.9	\$2,362.1

Source: Viridian Capital Advisors, EY analysis.

4 – The Cannabis Capital Flow – 2022



**Scott Greiper**  
President, Viridian

“In the nine years since launching Viridian Capital, we have witnessed the evolution of the cannabis market into what has become one of the largest global consumer packaged goods industries. Still in the early stages of growth, the past year has seen continued evolution in the capital markets for investors, lenders and operators. We believe the decline in capital availability and valuations presents lower-risk entry points for investors and acquirers.”

# Executive summary: 2023 outlook

**Financing will remain key to business vitality in 2023** – Downward margin pressure and inflationary pressure affecting both businesses' COGS and consumers are contributing to decreasing liquidity levels. Given the state of capital markets, 2023 will see a growing number of distressed businesses and assets.

**Commodification-based wholesale pricing declines will continue** – Wholesale pricing in California has slightly improved in the past month, but the increase has not been sufficient for cultivators to realize profits. This trend is likely to continue in 2023 as production capacity decreases following consolidations and operators' sector exits. The study of newly established markets reveals that wholesale prices are initially high, when retailer and consumer demand exceeds cultivation supply. However, as operators and multi-state operators (MSOs) gain more experience in developing capabilities, the period of good pricing seems to be getting shorter in each new market.

**Few regulatory developments expected in 2023** – The results of the 2022 midterm elections in the US indicate that cannabis is not an influential-enough issue to determine voting decisions. As a result, legislators do not feel pressured to take action on cannabis matters and focus their efforts elsewhere. Moreover, little progress is expected in regards to federal legalization, reclassification of cannabis, tax issues such as 280E and/or banking reforms, which will also lead to a slower rate of new investors entering the cannabis market in light of the recent financial losses.

**2023 will witness a decreasing number of operators due to exits and/or consolidation** – A great number of both Canadian and US cannabis businesses will no longer be able to rely on initial funding from their investors to sustain operations due to repeated cycles of challenging financial performance. The lack of access to bankruptcy courts in the US will contribute to the difficulties with restructuring distressed businesses. Conversely, operators that are close to being financially stable will focus their efforts on cost-saving measures, such as reducing capital expenditure and tighter working capital management. Belt-tightening and consolidation will lead to a healthier industry, with a stronger standing to face the challenges of federal legalization.

**M&A could increase due to slower capital markets and tighter operating budgets** – MSOs will likely find it more cost effective to acquire struggling companies rather than expanding internally. The advantage in negotiations will shift to larger, financially stable companies compared to their smaller, struggling competitors. For investors, this remains an opportunity to conduct thorough credit analysis and identify companies with strong operations that show growth potential for 2023.



**Rami El-Cheikh**  
Partner, EY-Parthenon

“Despite the current challenges, cannabis presents a viable growth opportunity for adjacent sectors in the mid to long term, if properly entered. Market entrants need to have a laser-focused business strategy with clear fields of play where the capabilities, knowhow and IP are relevant and transferrable. With the current valuation conditions, there is an opportunity to enter this next-generation consumer product category and make a meaningful return.”

# How can we support you?

	Business & Commercial Strategy Advisory		Risk Management Advisory		Capital Planning & Raising
	Operational Excellence Advisory		Transactions & Financial Advisory		Financial & Operational Restructuring
	People & Workforce Advisory		Tax Advisory		Working Capital Optimization
	Technology Advisory		Financial Accounting & Reporting Advisory		Management & Board Development

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Partner, EY-Parthenon – Strategy

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rami.el-cheikh@parthenon.ey.com



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1



# US cannabis market at a glance



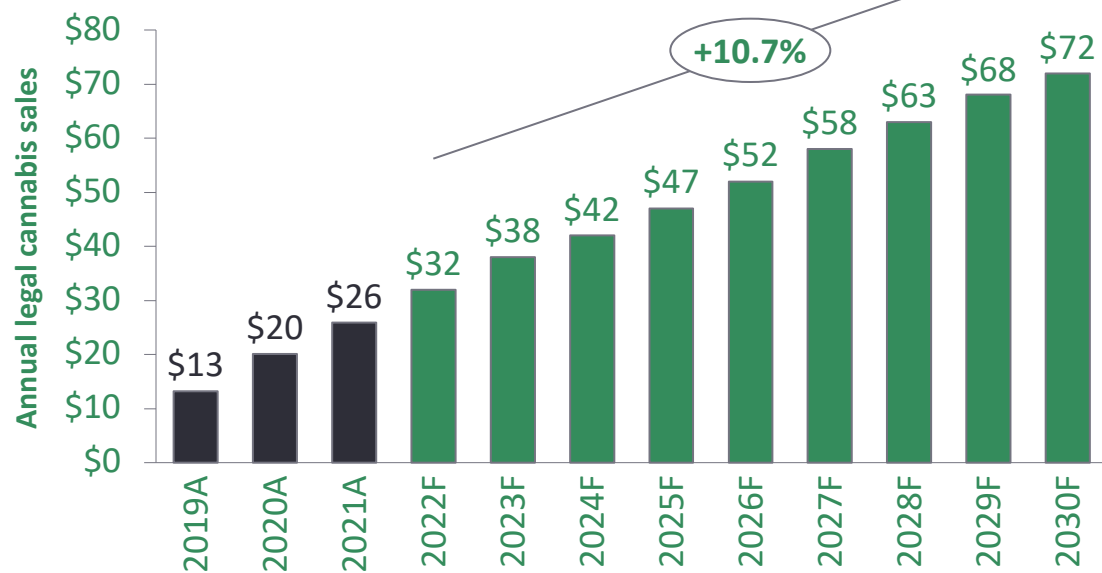




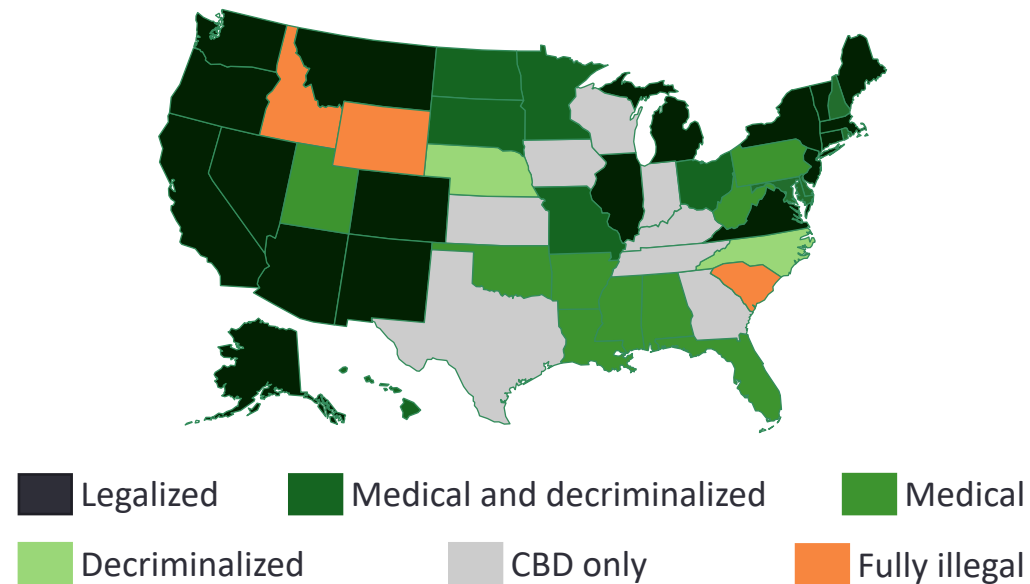
# US legal cannabis sales are estimated at \$32b for 2022, representing a ~2.5x increase from 2019 sales levels

Legal cannabis sales growth (actual vs. forecasted; 2019-30)

In Billions USD



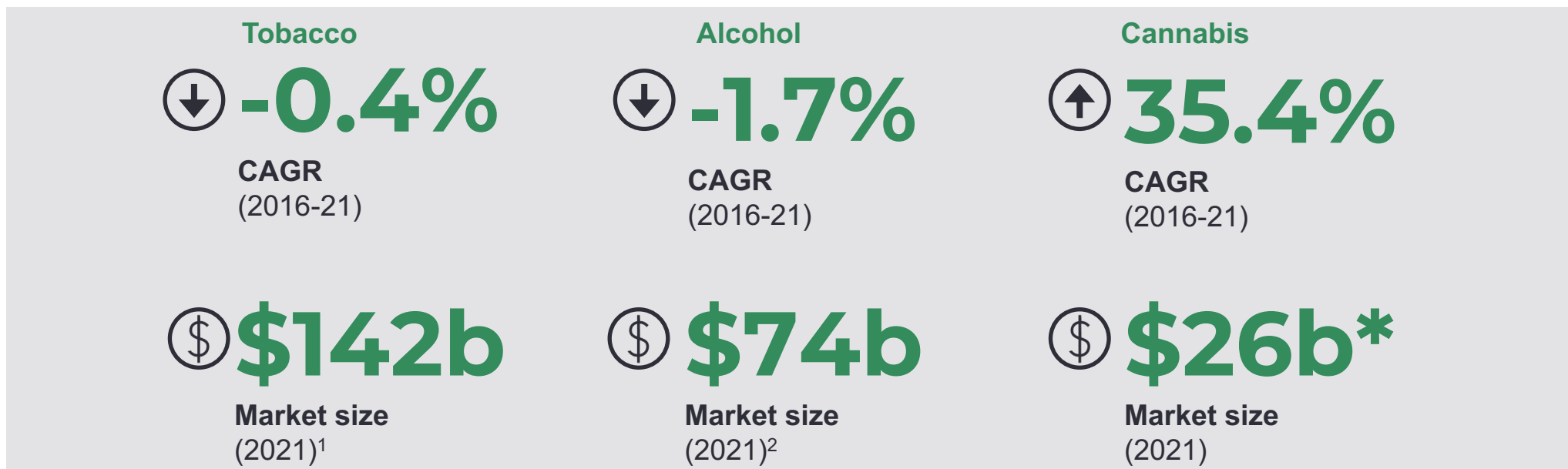
State legalization progress (2022)



- ▶ New Frontier Data predicts the market will grow by 10.7% year over year, reaching \$72b by 2030 (assuming continued expansion of the legal market).
- ▶ As of 2022, 39 states had a medical cannabis framework and 19 states (including DC) had also adopted an adult-use cannabis framework.



# The regulated segment of the cannabis market is smaller than adjacent industries, but shows strong growth with a 35.4% CAGR since 2016



- ▶ A Gallup poll reports that there are more cannabis consumers than tobacco users, and negative growth rates from 2016 to 2021 show that both the tobacco and alcohol industries are in decline.
- ▶ The cannabis industry achieved a sustained growth of 35.4% from 2016 to 2021, despite regulatory limitations and unregulated market forces.

1. IBISWorld US industry report 42494 Cigarette - Tobacco Products Wholesaling in the US.

2. IBISWorld US industry reports 31212 Breweries in the US, 31213 Wineries in the US, OD4611 RTD Mixed Spirit Production in the US, 31214 Distilleries in the US.

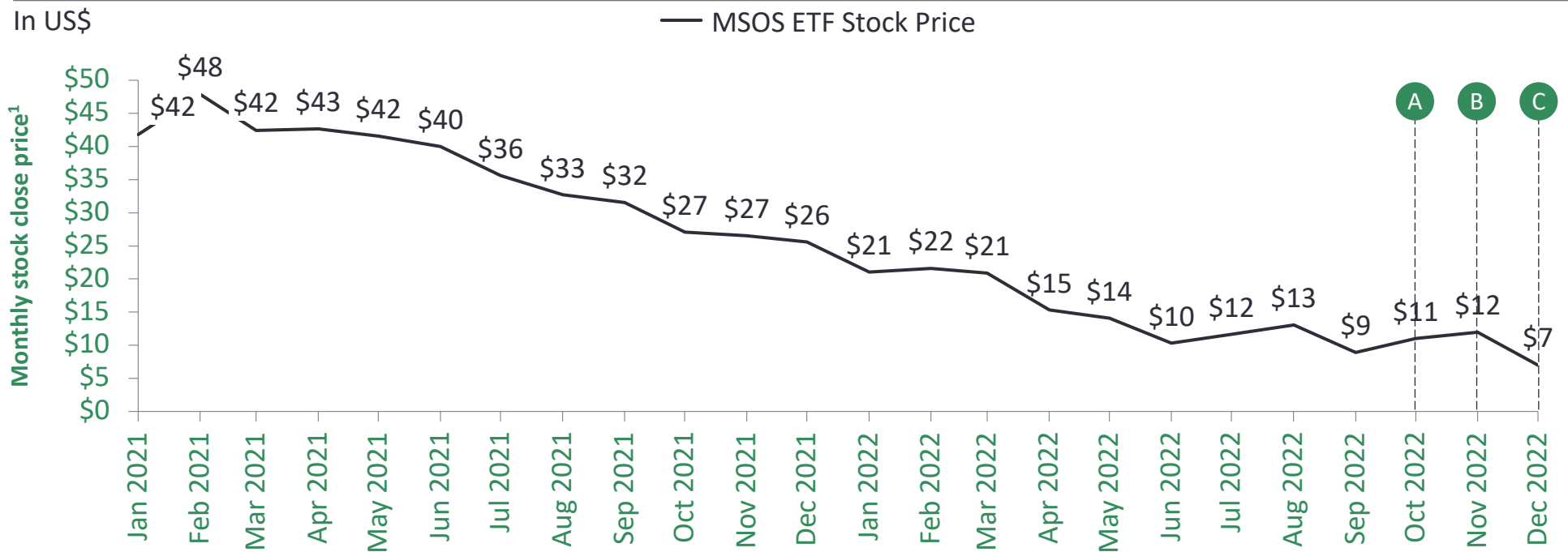
Sources: IBISWorld, New Frontier Data, MjBiz, Gallup, Viridian Capital Advisors and EY analysis.





# Cannabis equity prices declined ~85.5% since the February 2021 peak due to a lack of legislative developments and macroeconomic adjustments

MSOs (leading cannabis ETF) stock performance (2021–22)



**A: Biden's announcement**

On October 6, 2022, US President Joe Biden pardoned all federal cannabis possession charges and called for a review of cannabis scheduling.

**B: FDA warning letters**

In November 2022, the US Food and Drug Administration (FDA) issued warning letters about CBD, labeling it an unsafe food additive and not authorized for interstate commerce.

**C: SAFE Banking**

In December 2022, the SAFE banking provision that would have granted cannabis businesses access to financial services did not pass the US senate.

1. Price represents monthly close price adjusted for splits.

Sources: Yahoo Finance, MJBiz, Viridian Capital Advisors and EY analysis.



2



## North American cannabis M&A activity





# Business verticals forming the “business of cannabis”

Viridian and EY categorize the cannabis industry into 12 sectors that comprise the “business of cannabis.”



## Agriculture technology

Providers of controlled environment agriculture (CEA) and other cultivation technologies



## Infused products & extracts

Companies that extract and refine cannabis oils and develop and sell cannabis-infused foods, drinks, cosmetics and other products



## Biotech/pharma

Companies pursuing clinical development of cannabinoid-based drug candidates through the FDA, the EMA or a similar regulatory body



## Investments/M&A

Financial services firms, investment funds, holding companies and other capital providers targeting the cannabis industry



## Consulting services

Providers of various consulting services, including management, operations, strategy, compliance, licensing and others



## Miscellaneous ancillary

Service or product companies, such as testing laboratories, specialized packaging, branding, labelling companies and cannabis-focused recruitment firms



## Consumption devices

Manufacturers and downstream sellers of various consumption devices, such as vaporizers, rigs, glassware and more



## Psychedelics

Believed to be useful in the management and treatment of a wide range of mental health issues, including addiction, anxiety, depression and distress



## Cultivation & retail

Companies that grow, distribute or sell cannabis or cannabis-derived products



## Real estate

Companies that own, lease, develop or license commercial properties for cannabis operators



## Hemp

Cultivators of hemp, sellers of industrial hemp products and producers of hemp-derived CBD products



## Software/media

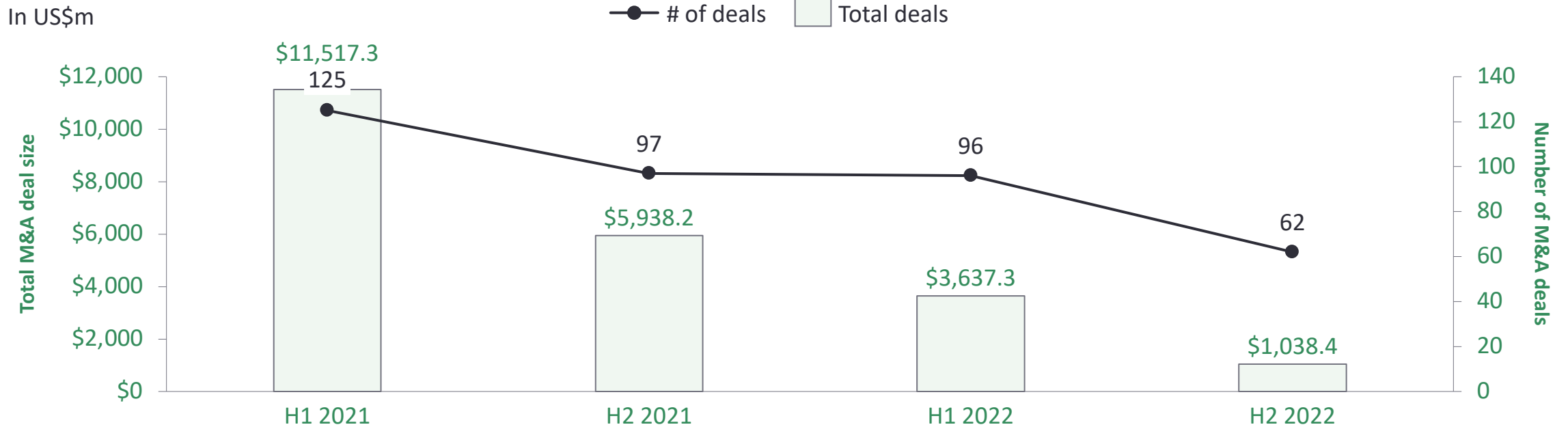
Companies that develop and provide technology, software, data and media solutions, such as seed-to-sale tracking, delivery, enterprise software





# North American M&A activity declined due to macroeconomic headwinds...

Total M&A activity by sector type (2021-2022)

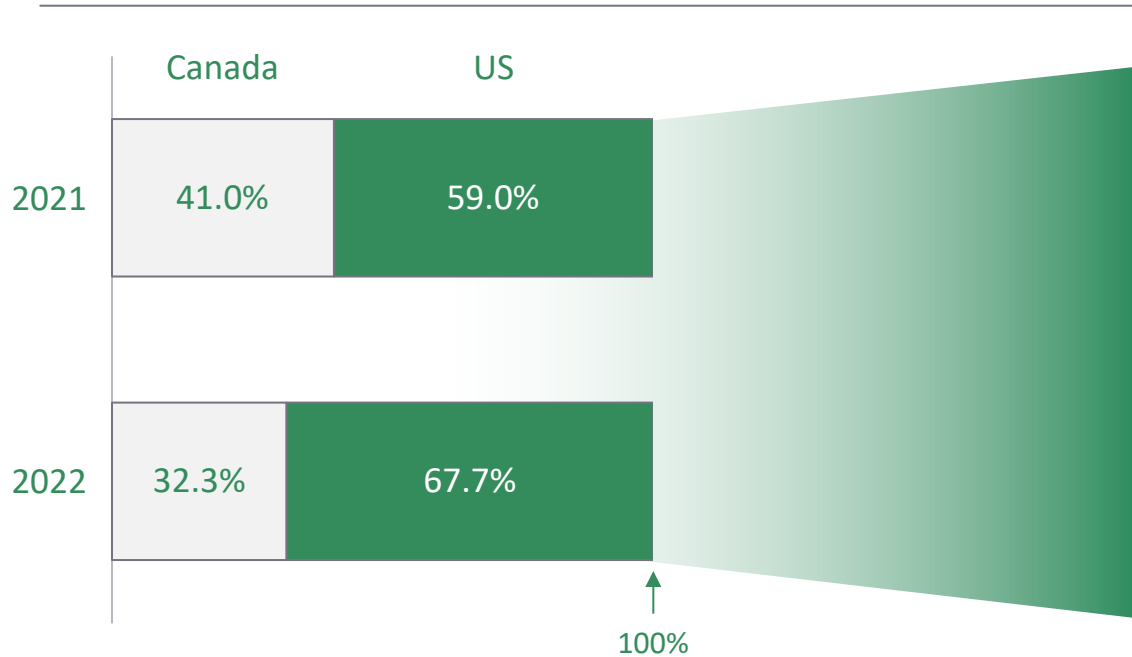


- ▶ M&A deal value decreased sequentially every half-year, from H1 2021 to H2 2022, representing a decline of 91% from H1 2021 to H2 2022.
- ▶ On a full-year basis, M&A deal value decreased by 73% from \$17,455m in 2021 to \$4,676m in 2022, driven by a 29% decline in the number of deals and a 62% decline in average value per deal over that same period.
- ▶ There are other factors causing the decline in M&A activity besides macroeconomic headwinds, including the preference to forgo equity-structured deals to avoid further diluting low stock prices, difficulty accessing financing, and current regulatory restrictions affecting valuations.

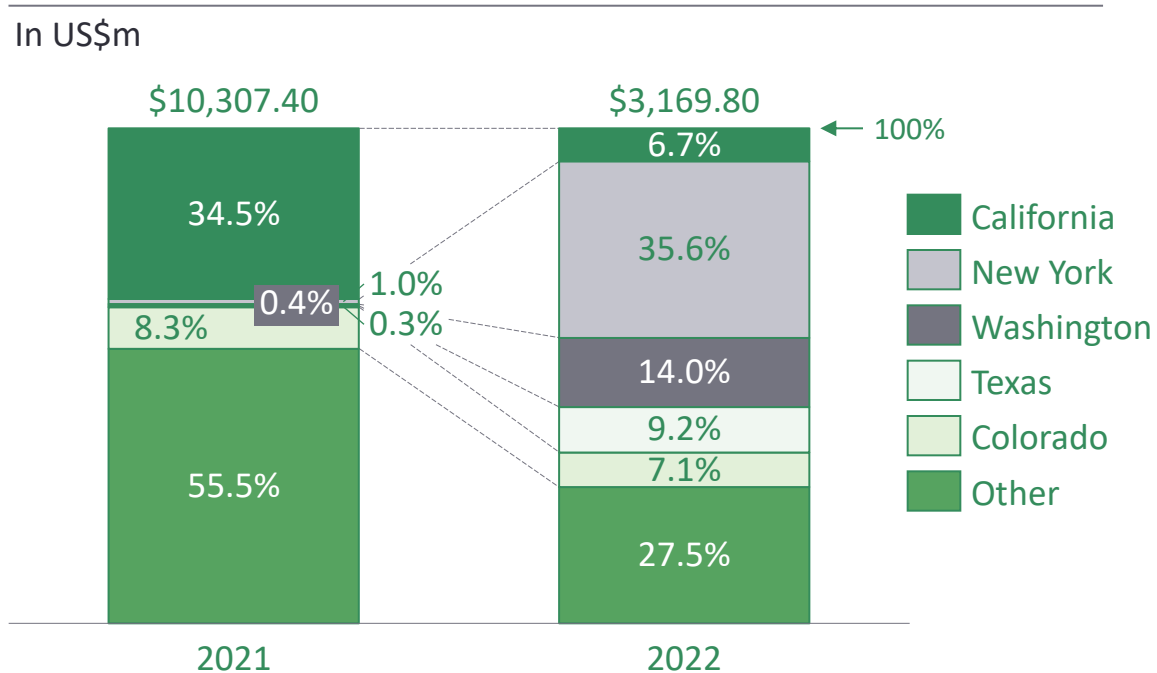


# ... however, M&A activity has sustained momentum in some US states based on regulatory changes, such as legalization and consolidation trends

Total M&A activity in Canada vs. US (2021 & 2022)



M&A activity by US state (2021 & 2022)



- ▶ The US continued to drive the majority of M&A activity in 2022, growing as a percentage of total M&A activity from 59.0% in 2021 to 67.7% in 2022.
- ▶ Major events have led to increases in the share of M&A activity by state (e.g., New York went from 1.0% in 2021 to 35.6% in 2022, and Texas went from 0.3% in 2021 to 9.2% in 2022), whereas more mature markets have experienced declines in the share of total M&A value (e.g., California went from 34.5% in 2021 to 6.7% in H1 2022).

1. "Other" includes Arkansas, Minnesota, Michigan, Pennsylvania, Massachusetts, etc.

Sources: Viridian Capital Advisors, EY analysis.

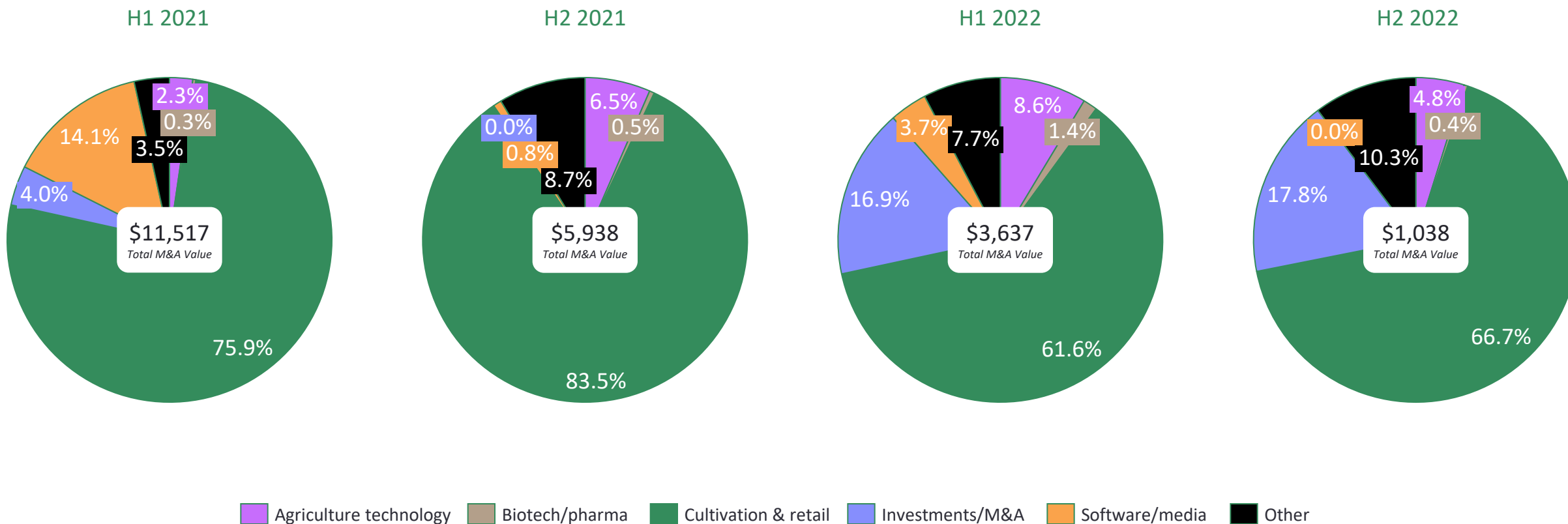




# Cultivation and retail remain the leading sectors for M&A activity, capturing the majority of deals across the cannabis market

Total M&A activity by sector type (H1 2021 – H2 2022)

In US\$m



1. "Other" includes consulting services, consumption devices, hemp, infused products and extracts, biotech/pharma, miscellaneous ancillary, psychedelics.

Sources: Viridian Capital Advisors, EY analysis



3



## North American cannabis capital raises & financing



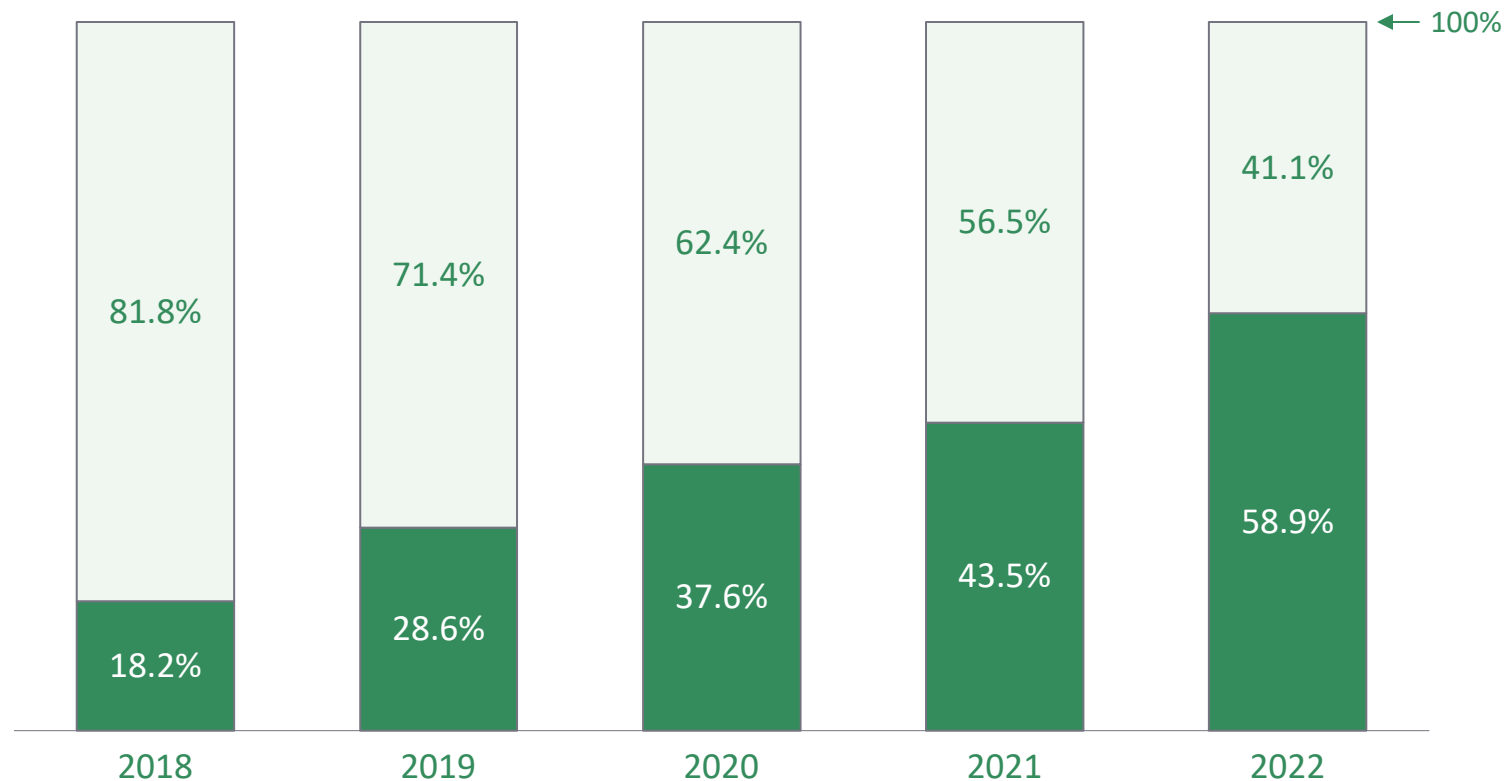


# As the industry continues to mature, debt has become the primary source of growth capital in light of falling equity prices

Equity vs. debt capital raises (2018–22)

In US\$m

Equity raises Debt raises



Sources: Viridian Capital Advisors, EY analysis.

18 – The Cannabis Capital Flow – 2022

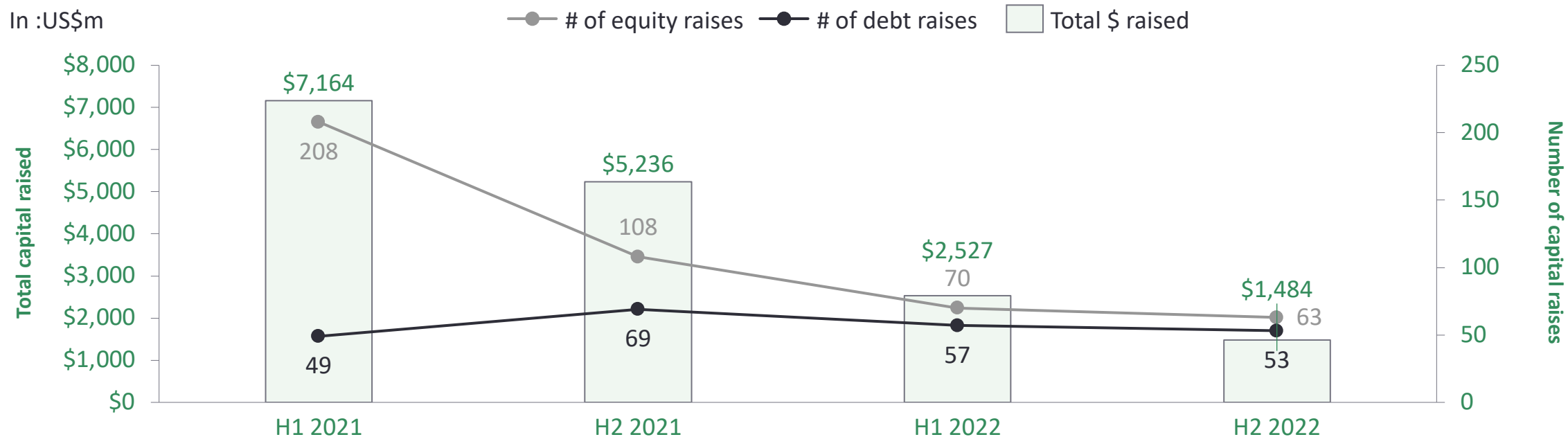
**Scott Greiper**  
President, Viridian

“As a growth industry, cannabis has traditionally attracted growth-oriented equity investors. However, debt financing has become an important source of capital as lenders are drawn to the underlying real estate collateral and visible cash flows of better-performing companies.”



# Macroeconomic conditions and the current regulatory framework have led to the decrease of the size and number of capital raises

Equity vs. debt capital raises: total amount raised and number of raises by type (H1 2021 – H2 2022)

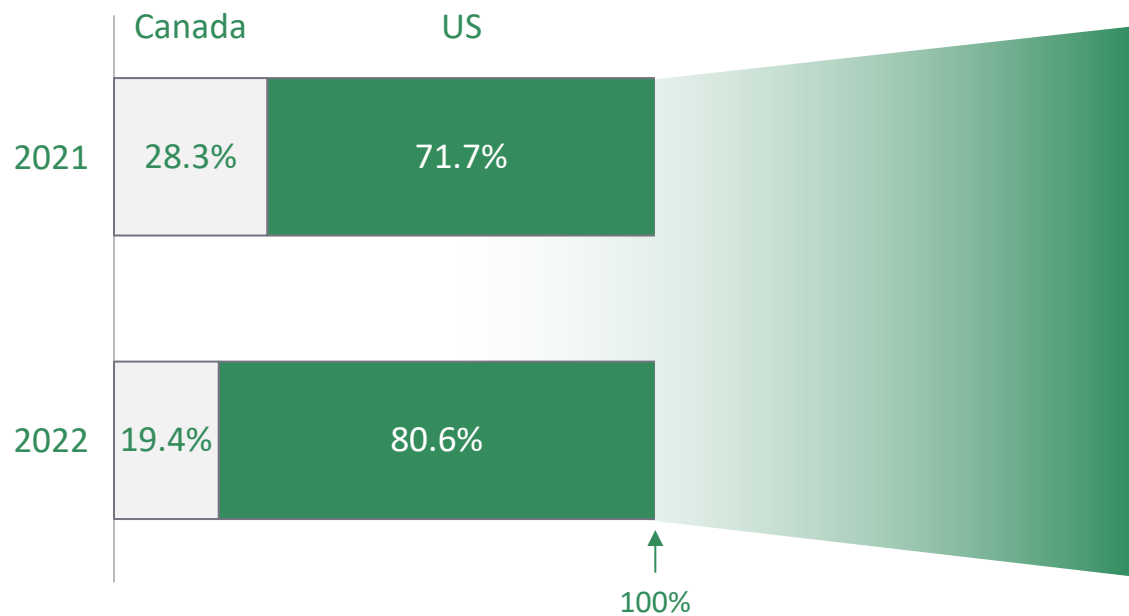


- ▶ Total capital raised decreased sequentially every half-year, from H1 2021 to H2 2022, representing a decline of 79% from H1 2021 to H2 2022.
- ▶ On a full-year basis, total capital raised decreased by 68% from \$12,400m in 2021 to \$4,011m in 2022, including a 58% decline in the number of equity raises and a 7% decline in debt raises over that same period.
- ▶ The average size of equity raises decreased from \$22.17m in 2021 to \$12.40m in 2022 (44% decrease), whereas the average size of debt raises decreased from \$45.72m in 2021 to \$21.48m in 2022.

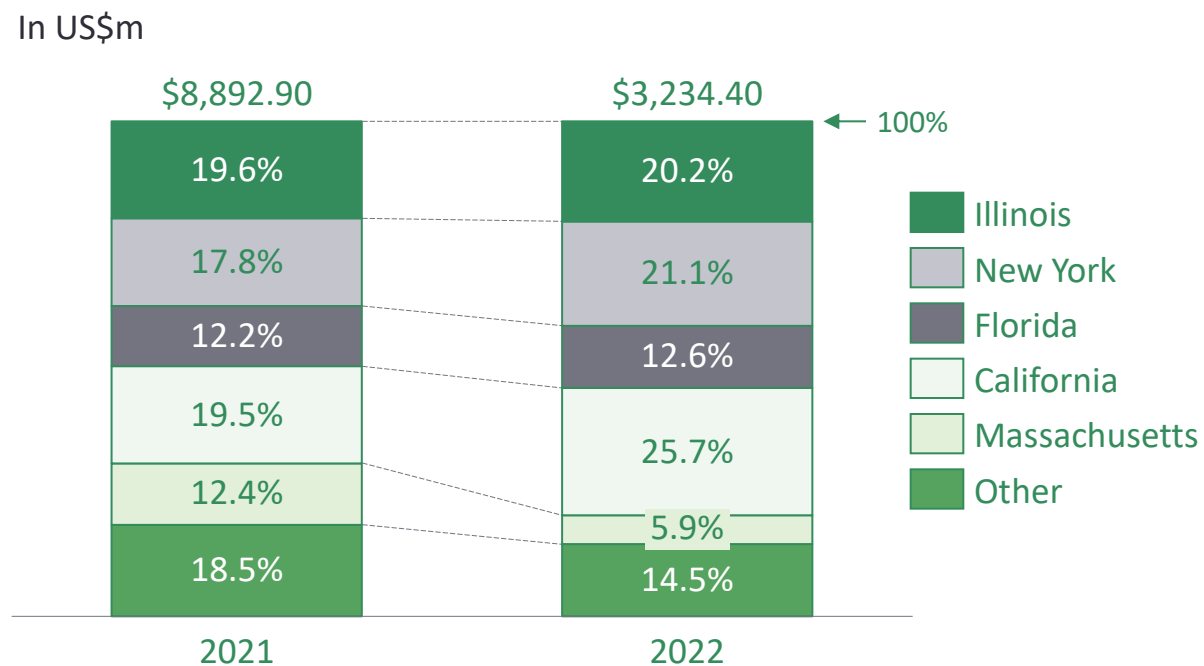


# Despite a decrease in overall capital raises, certain markets, such as California and New York, continue to see strong demand for funding

Total capital raise activity in Canada vs. US (2021 & 2022)



Capital raise activity by US state (2021 & 2022)



- ▶ The US continued to attract the majority of investor capital in 2022, growing as a percentage of total capital raised from 71.7% in 2021 to 80.6% in 2022.
- ▶ Major events have led to increases in the share of capital raising by state (e.g., New York went from 17.8% in 2021 to 21.1% in 2022), whereas more mature markets continue to require capital raises to support operations (e.g., California went from 19.5% in 2021 to 25.7% in 2022).

1. "Other" includes Arkansas, Minnesota, Michigan, Pennsylvania, Massachusetts.

Sources: Viridian Capital Advisors, EY analysis.

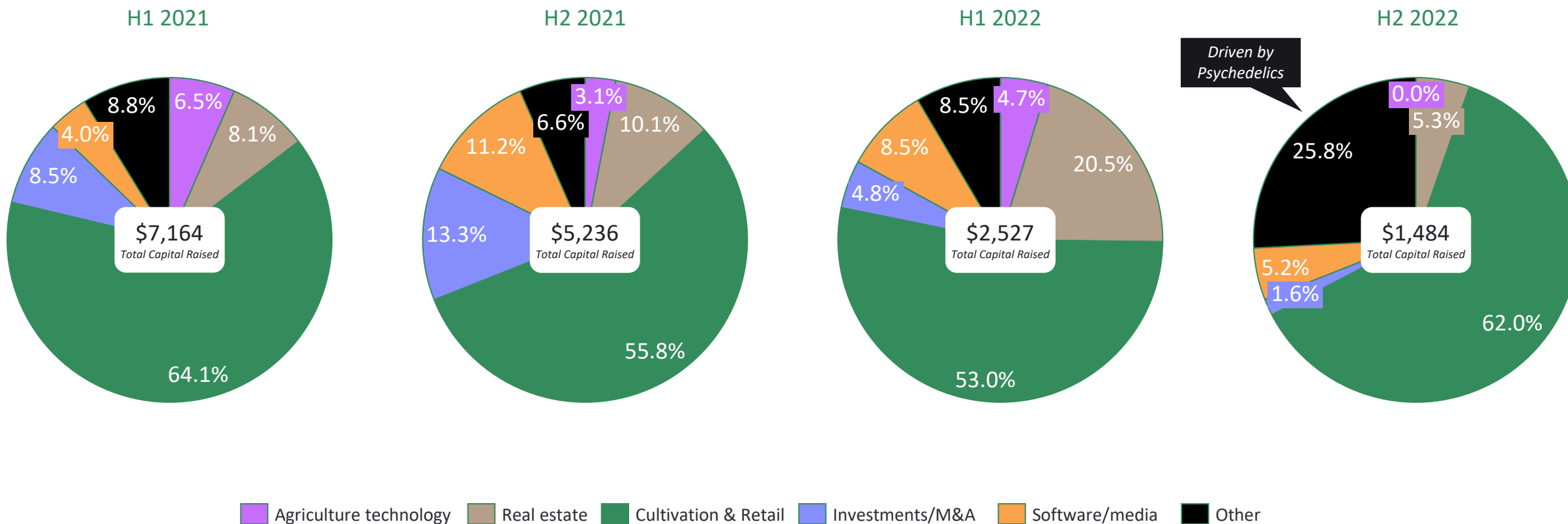




# As capital raises decreased, we continued to see the largest amount of capital directed towards cultivation and retail

Total capital raise activity by sector type (H1 2021 – H1 2022)

In US\$m



1. "Other" includes biotech / pharma, consulting services, consumption devices, hemp, infused products and extracts, miscellaneous ancillary, psychedelics.

Sources: Viridian Capital Advisors, EY analysis.



4



## Appendix

- a) US cannabis market at a glance
- b) North American cannabis M&A activity
- c) North American cannabis capital raises & financing





4a



## Appendix

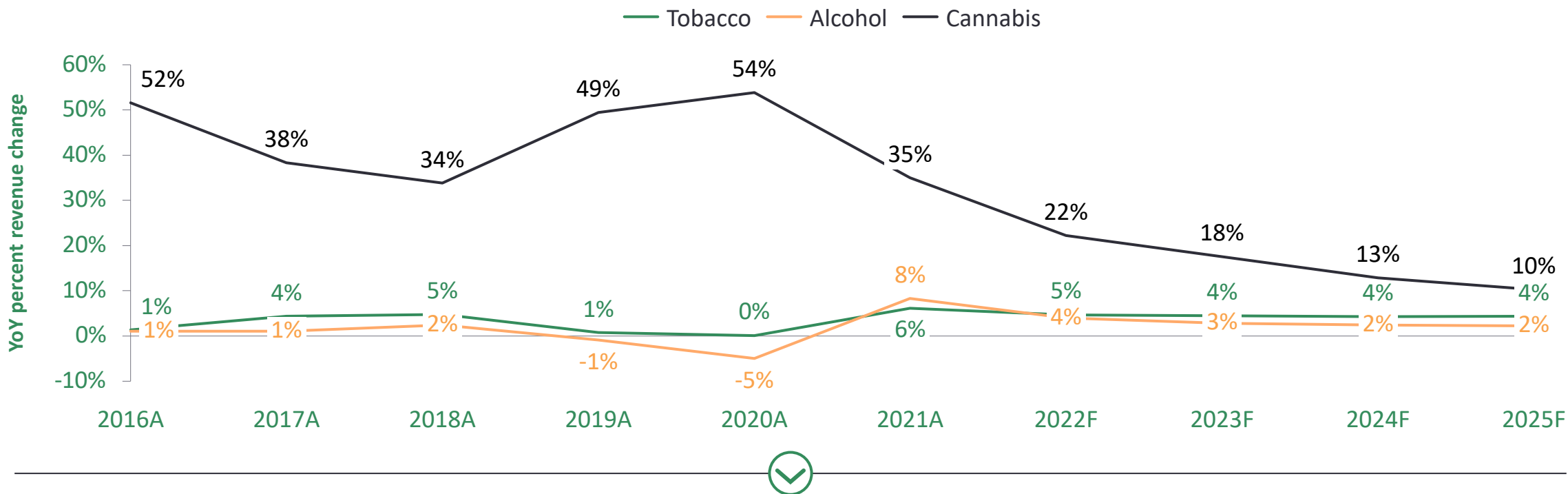
- a) US cannabis market at a glance
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# Cannabis performance vs. adjacent sectors

Percentage change in annual revenue across cannabis, tobacco<sup>1</sup> and alcohol<sup>2</sup> in the US (2016-25)



- ▶ The cannabis industry has outperformed adjacent industries (i.e., alcohol and tobacco) and forecasts indicate the faster growth trend will continue.
- ▶ The growth rate for alcohol and tobacco is expected to stay between 2%-4%, whereas cannabis is expected to grow at 10% from 2024 to 2025.

1. IBISWorld US industry report 42494 Cigarette - Tobacco Products Wholesaling in the US.

2. IBISWorld US industry reports 31212 Breweries in the US, 31213 Wineries in the US, OD4611 RTD Mixed Spirit Production in the US, 31214 Distilleries in the US.

Sources: IBISWorld, MJBiz, Viridian Capital Advisors and EY analysis.

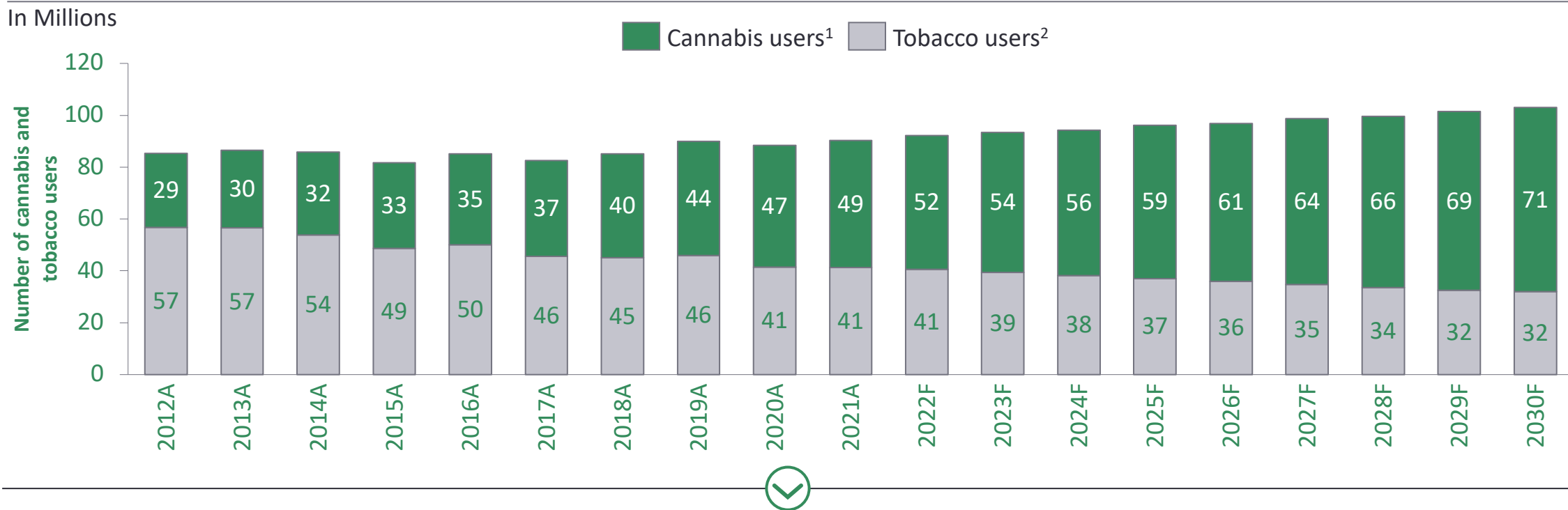






# Consumption trends in the cannabis industry vs. adjacent sectors

Number of cannabis and tobacco users in the US (2012–30)



- ▶ As of 2020, there were more cannabis users than tobacco users in the US.
- ▶ The number of cannabis users is expected to grow to 71m by 2030 (21% of the population), while the number of tobacco users is expected to decline further and reach 32m by 2030.

1. New Frontier Data defines a cannabis user as an individual who has consumed cannabis, in any format, in the last 12 months.

2. IBISWorld uses the CDC definition of tobacco smoker, which refers to an adult who has smoked 100 cigarettes in his or her lifetime and who currently smokes cigarettes.

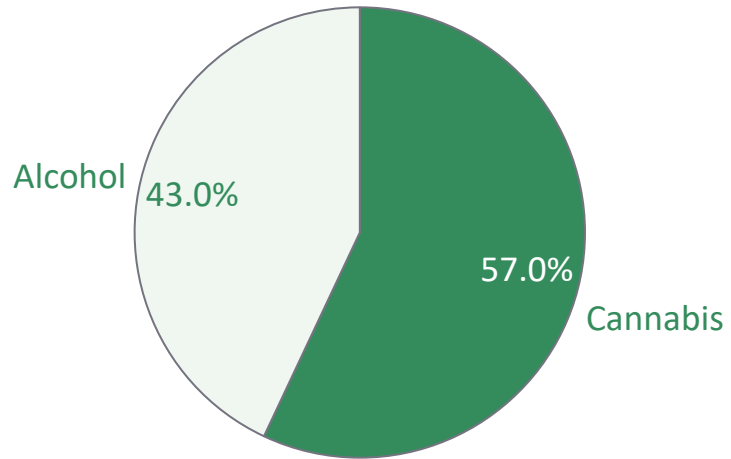
Sources: New Frontier Data, IBISWorld, Gallup, Viridian Capital Advisors and EY analysis.



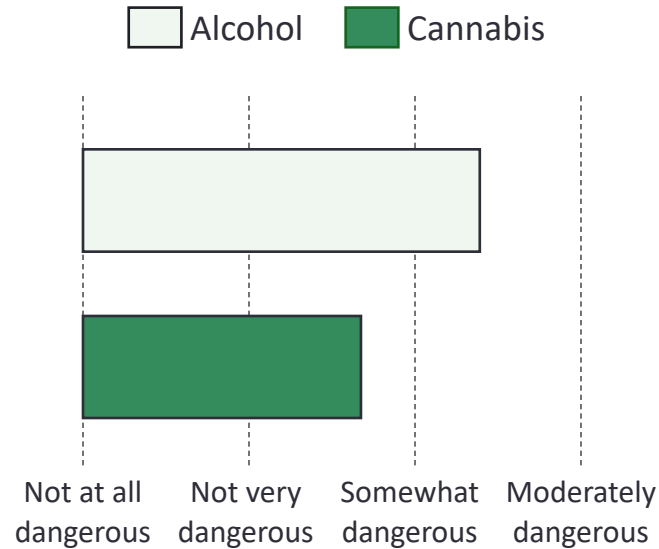


# Perception of the cannabis industry vs. adjacent sectors

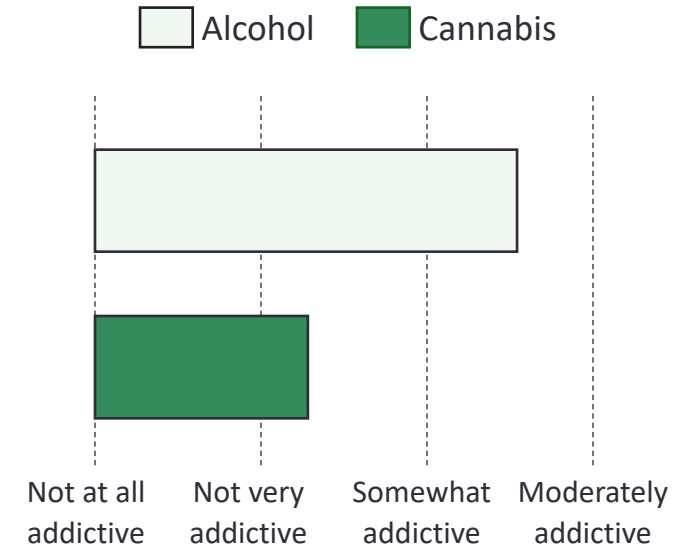
Preference for legalization of alcohol vs. cannabis



Perceived danger of alcohol vs. cannabis



Perceived addictiveness of alcohol vs. cannabis



- ▶ Based on a survey conducted by American Addiction Centers (AAC), if only one substance could be legal between alcohol and cannabis, the majority (57%) of respondents would choose cannabis.
- ▶ The survey also revealed that alcohol is perceived to be a more dangerous and more addictive substance than cannabis.

4b



## Appendix

- a) US cannabis market at a glance
- b) North American cannabis M&A activity
- c) North American cannabis capital raises & financing





# M&A activity by target sector

US\$m

Sector	H1 2021	H2 2021	2021	H1 2022	H2 2022	2022
<b>Agriculture technology</b>	\$265.0	\$387.1	\$652.1	\$314.1	\$50.0	\$364.1
<b>Biotech/pharma</b>	\$35.4	\$29.3	\$64.7	\$51.2	\$3.8	\$55.0
<b>Consulting services</b>	\$9.5	-	\$9.5	\$10.0	\$31.9	\$41.9
<b>Consumption devices</b>	\$8.0	\$187.6	\$195.6	-	-	-
<b>Cultivation &amp; retail</b>	\$8,736.4	\$4,957.1	\$13,693.5	\$2,240.2	\$692.6	\$2,932.8
<b>Hemp</b>	\$182.5	\$207.5	\$390.0	\$89.2	\$3.8	\$93.0
<b>Infused products &amp; extracts</b>	\$155.5	\$9.9	\$165.4	\$151.6	\$25.8	\$177.4
<b>Investments/M&amp;A</b>	\$456.5	-	\$456.5	\$614.6	\$185.0	\$799.6
<b>Miscellaneous ancillary</b>	\$11.0	-	\$11.0	-	\$12.2	\$12.2
<b>Physical security</b>	\$37.2	\$108.0	\$145.2	-	-	-
<b>Psychedelics</b>	-	-	\$0.0	\$22.0	\$9.7	\$31.7
<b>Real estate</b>	-	\$2.0	\$2.0	\$8.1	\$23.5	\$31.6
<b>Software/media</b>	\$1,620.2	\$49.6	\$1,669.8	\$136.3	-	\$136.3
<b>Total M&amp;A activity (North America)</b>	\$11,517.2	\$5,938.2	\$17,455.4	\$3,637.3	\$1,038.4	\$4,675.7



# M&A activity by location

US\$m

State	H1 2021	H2 2021	2021	H1 2022	H2 2022	2022
Washington	\$32.2	\$7.5	\$39.7	\$443.7	-	\$443.7
Colorado	\$369.7	\$487.6	\$857.3	\$188.3	\$221.2	\$409.5
New York	\$42.5	\$62.7	\$105.2	\$296.0	\$48.4	\$344.4
Nevada	\$220.7	\$94.3	\$315.0	\$109.8	\$209.9	\$319.7
Arizona	\$294.0	\$1,431.2	\$1,725.2	\$317.4	\$0.8	\$318.1
Texas	\$27.6	-	\$27.6	\$284.0	\$6.1	\$290.1
Florida	\$722.9	\$56.9	\$779.8	\$188.6	\$86.0	\$274.6
California	\$2,886.5	\$670.7	\$3,557.2	\$134.1	\$77.6	\$211.6
Pennsylvania	\$418.8	\$502.0	\$920.8	\$108.2	\$59.0	\$167.2
Massachusetts	\$60.3	\$259.2	\$319.5	\$105.6	\$21.5	\$127.1
Other	\$443.6	\$1,216.7	\$1,660.3	\$201.8	\$62.0	\$263.8
<b>Total M&amp;A Activity (US)</b>	<b>\$5,518.6</b>	<b>\$4,788.8</b>	<b>\$10,307.4</b>	<b>\$2,377.3</b>	<b>\$792.5</b>	<b>\$3,169.8</b>



# M&A activity by deal size

US\$m

Size	H1 2021	H2 2021	2021	H1 2022	H2 2022	2022
Less than \$25m or not disclosed	\$226.8	\$144.5	\$371.3	\$124.5	\$90.0	\$214.5
\$25m - \$100m	\$1,680.8	\$1,812.6	\$3,493.4	\$967.9	\$427.4	\$1,395.3
\$100m - \$500m	\$3,089.7	\$1,836.5	\$4,926.2	\$2,544.9	\$521.0	\$3,065.9
Over \$500m	\$6,519.9	\$2,144.5	\$8,664.4	-	-	-
<b>Total transaction value (North America)</b>	<b>\$11,517.2</b>	<b>\$5,938.2</b>	<b>\$17,455.4</b>	<b>\$3,637.3</b>	<b>\$1,038.4</b>	<b>\$4,675.7</b>





# M&A activity

## H1 2022



US\$m

Buyer/acquirer	Acquirer						Target					
	Public/private	Ticker	Sector	Country	Date	Transaction type	Target	Public/private	Ticker	Sector	Country	Transaction value
<b>Sundial Growers Inc.</b>	Public	SNDL - Nasdaq	Cultivation & retail	Canada	3/31/2022	Acquisition	Alcanna	Public	CLIQ – TSX	Cultivation & Retail	Canada	\$453.4
<b>Merida Merger Corp. I</b>	Public	MCMJ- Nasdaq	Investments/ M&A	US	2/4/2022	Reverse takeover	Leafly Holdings, Inc.	Private	-	Software / Media	US	\$443.7
<b>TerrAscend Corp.</b>	Public	TER - CSE	Cultivation & retail	US	3/10/2022	Acquisition	Gage Growth Corp. Fluence	Public	GAGE – CSE	Cultivation & Retail	Canada	\$337.9
<b>Signify N.V.</b>	Public	LIGHT – ENXTAM	Investments/ M&A	Netherlands	5/2/2022	Acquisition	Bioengineering, Inc.	Private	-	Agriculture Technology	US	\$272.0
<b>RIV Capital Inc.</b>	Public	RIV - CNSX	Investments/ M&A	Canada	4/21/2022	Acquisition	Etain, LLC	Private	-	Cultivation & Retail	US	\$247.0
<b>Curaleaf Holdings, Inc.</b>	Public	CURA - CSE	Cultivation & retail	US	1/19/2022	Acquisition	Bloom Dispensaries	Private	-	Cultivation & Retail	US	\$211.0
<b>Tilray, Inc.</b>	Public	TLRY - Nasdaq	Cultivation & retail	Canada	3/3/2022	Acquisition	Hexo Corp.	Public	HEXO - Nasdaq	Cultivation & Retail	Canada	\$200.5
<b>Tuatara Capital Acquisitions Corp.</b>	Private	-	Investments/ M&A	US	6/14/2022	Reverse takeover	Springbig, Inc.	Private	-	Software / Media	US	\$155.6
<b>Emerald X, LLC</b>	Private	-	Non-cannabis-related	US	1/3/2022	Acquisition	MJBiz	Private	-	Software / Media	US	\$120.0
<b>Harborside</b>	Public	HBOR - CSE	Cultivation & retail	US	4/5/2022	Acquisition	Loudpack Inc. and UL Holdings Inc.	Private	-	Cultivation & Retail	US	\$103.9

Source: Viridian Capital Advisors, EY analysis



# M&A activity

## H2 2022



US\$m

Buyer/Acquirer	Acquirer						Target					
	Public/Private	Ticker	Sector	Country	Date	Transaction Type	Target	Public/Private	Ticker	Sector	Country	Transaction Value
<b>Northern Lights Acquisition Corp.</b>	Public	NLIT - Nasdaq	Investments/M&A	USA	9/27/2022	Reverse Takeover	Safe Harbor Financial, LLC	Private	-	Consulting Services	USA	\$185.0
<b>Curaleaf Holdings, Inc.</b>	Public	CURA - CSE	Cultivation & Retail	USA	10/5/2022	Acquisition	Tryke Companies	Private	-	Cultivation & Retail	USA	\$181.0
<b>Tilray Brands</b>	Public	TLRY - Nasdaq	Cultivation & Retail	USA	7/12/2022	Strategic Investment	HEXO Corp.	Public	HEXO - Nasdaq	Cultivation & Retail	Canada	\$155.0
<b>Green Sentry Holdings, LLC</b>	Private	-	Cultivation & Retail	USA	8/26/2022	Acquisition of Assets	Substantially All Assets of MedMen's Florida Operations	Private	-	Cultivation & Retail	USA	\$67.0
<b>RIV Capital Inc.</b>	Public	RIV - CNSX	Investments/M&A	Canada	12/15/2022	Acquisition	Etain, LLC	Private	-	Cultivation & Retail	USA	\$48.4
<b>Aurora Cannabis Inc.</b>	Public	ACB - Nasdaq	Cultivation & Retail	Canada	8/25/2022	Acquisition of 50.1% Stake	Bevo Agtech Inc.	Private	-	Agriculture Technology	Canada	\$43.9
<b>TPCO Holding Corp.</b>	Public	GRAM.F - OTCfPK	Cultivation & Retail	USA	11/14/2022	Acquisition	Coastal Holding Company, LLC	Private	-	Cultivation & Retail	USA	\$41.7
<b>SHF Holdings, Inc.</b>	Public	SHFS - Nasdaq	Investments/M&A	USA	11/16/2022	Acquisition	Abaca	Private	-	Consulting	USA	\$30.0
<b>TerrAscend Corp.</b>	Public	TER - CSE	Cultivation & Retail	USA	8/24/2022	Sale-Leaseback	KISA Enterprises MI, LLC/KISA Holdings, LLC	Private	-	Cultivation & Retail	USA	\$28.5
<b>Bloomios, Inc.</b>	Public	BLMS - OTC	Hemp	USA	10/27/2022	Acquisition	Infusionz, LLC	Private	-	Infused Products & Extracts	USA	\$23.5

Sources: Viridian Capital Advisors, EY analysis.



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## Appendix

- a) US cannabis market at a glance
- b) North American cannabis M&A activity
- c) North American cannabis capital raises & financing





# Debt Financing's Dominance in Cannabis

US\$m

Capital raises – Equity raises	H1 2021	H2 2021	2021	H1 2022	H2 2022	2022
# Raises	208	108	316	70	62	132
\$Amount	\$5,190.5	\$1,813.6	\$7,004.2	\$1,198.1	\$451.2	\$1,649.3
% Amount	72%	35%	56%	47%	30%	41%

Capital raises – Debt raises	H1 2021	H2 2021	2021	H1 2022	H2 2022	2022
# Raises	49	69	118	57	53	110
\$Amount	\$1,973.4	\$3,422.5	\$5,395.9	\$1,329.0	\$1,033.1	\$2,362.1
% Amount	28%	65%	44%	53%	70%	59%



# Capital raises by sector

US\$m

Sector	H1 2021	H2 2021	2021	H1 2022	H2 2022	2022
<b>Agriculture technology</b>	\$468.3	\$160.0	\$628.3	\$119.6	\$0.6	\$120.2
<b>Biotech/pharma</b>	\$142.4	\$79.0	\$221.4	\$60.6	\$88.1	\$148.7
<b>Consulting services</b>	-	\$20.0	\$20.0	-	-	-
<b>Consumption devices</b>	\$4.2	\$44.0	\$48.2	-	\$22.5	\$22.5
<b>Cultivation &amp; retail</b>	\$4,591.1	\$2,923.0	\$7,514.1	\$1,339.5	\$920.3	\$2,259.8
<b>Hemp</b>	\$153.9	\$70.0	\$223.9	\$60.5	\$61.7	\$122.2
<b>Infused products &amp; extracts</b>	\$269.2	\$78.0	\$347.2	\$85.6	\$17.0	\$102.6
<b>Investments/M&amp;A</b>	\$609.4	\$694.0	\$1,303.4	\$121.4	\$24.4	\$145.8
<b>Miscellaneous ancillary</b>	\$18.9	\$53.0	\$71.9	-	-	-
<b>Physical security</b>	-	-	-	-	-	-
<b>Psychedelics</b>	\$39.2	-	\$39.2	\$7.9	\$193.8	\$201.7
<b>Real estate</b>	\$580.6	\$529.0	\$1,109.6	\$516.8	\$79.0	\$595.8
<b>Software/media</b>	\$286.7	\$587.0	\$873.7	\$215.2	\$76.9	\$292.1
<b>Total capital raised (North America)</b>	\$7,163.9	\$5,236.1	\$12,400.0	\$2,527.1	\$1,484.3	\$4,011.4



# Capital raises by location

In Millions USD

State	H1 2021	H2 2021	2021	H1 2022	H2 2022	2022
Illinois	\$988.2	\$752.1	\$1,740.3	\$215.1	\$437.5	\$652.6
New York	\$1,030.1	\$549.8	\$1,579.9	\$466.0	\$216.2	\$682.2
Florida	\$458.7	\$623.9	\$1,082.6	\$235.8	\$172.2	\$408.0
California	\$875.0	\$863.2	\$1,738.2	\$698.1	\$133.9	\$832.0
Massachusetts	\$621.6	\$483.7	\$1,105.3	\$97.4	\$92.0	\$189.4
Colorado	\$161.0	\$130.0	\$291.0	\$78.4	\$88.9	\$167.3
Michigan	\$50.0	\$123.0	\$173.0	\$48.0	\$32.3	\$80.3
Arizona	\$1.3	\$19.0	\$20.3	\$0.0	\$28.1	\$28.1
Washington, DC	\$0.0	\$0.0	\$0.0	\$0.0	\$5.0	\$5.0
Nevada	\$56.9	\$4.4	\$61.3	\$2.3	\$2.0	\$4.3
Other	\$565.5	\$535.4	\$1,100.9	\$183.8	\$1.5	\$185.3
<b>Total M&amp;A activity (US)</b>	<b>\$4,808.3</b>	<b>\$4,084.6</b>	<b>\$8,892.9</b>	<b>\$2,024.9</b>	<b>\$1,209.5</b>	<b>\$3,234.4</b>



# Capital raises by deal size

US\$m

Size	H1 2021	H2 2021	2021	H1 2022	H2 2022	2022
Less than \$10m	\$434.2	\$242.5	\$676.7	\$165.3	\$167.4	\$332.7
\$10m - \$25m	\$734.2	\$460.4	\$1,194.6	\$265.2	\$345.2	\$610.4
\$25m - \$100m	\$1,585.1	\$816.0	\$2,401.1	\$1,124.2	\$621.7	\$1,745.9
Over \$100m	\$4,410.5	\$3,717.3	\$8,127.8	\$972.5	\$350.0	\$1,322.5
<b>Total capital raised (North America)</b>	<b>\$7,163.9</b>	<b>\$5,236.1</b>	<b>\$12,400.0</b>	<b>\$2,527.1</b>	<b>\$1,484.3</b>	<b>\$4,011.4</b>



# Capital raise activity

## H1 2022



US\$m

### Top 5 equity raises

	Public/private	Ticker	Sector	Country	Date	Transaction type	Transaction value
<b>Innovative Industrial Properties</b>	Public	IIPR – NYSE	Real estate	US	4/6/2022	Follow-on equity offering	\$345.0
<b>Aurora Cannabis</b>	Public	ACB – Nasdaq	Cultivation & retail	Canada	5/27/2022	Bought deal units offering	\$172.5
<b>Silver Spike Investment Corp.</b>	Public	SSIC – Nasdaq	Investments / M&A	US	2/4/2022	Initial public offering	\$85.0
<b>Lev, Inc.</b>	Private	-	Software / media	US	5/5/2022	Series B funding round	\$70.0
<b>AFC Gamma, Inc.</b>	Public	AFCG – Nasdaq	Real estate	US	1/5/2022	Follow-on equity offering	\$61.5
<b>Good Day Farm Arkansas, LLC</b>	Private	-	Cultivation & retail	Hemp	3/22/2022	Venture funding round	\$56.1

### Top 5 debt raises

	Public/Private	Ticker	Sector	Country	Date	Transaction type	Transaction value
<b>Columbia Care Inc.</b>	Public	CCHW – CSE	Cultivation & Retail	USA	2/2/2022	Private Placement	\$185.0
<b>Shryne Group</b>	Private	-	Cultivation & Retail	USA	6/2/2022	Senior Secured Term Loan	\$170.0
<b>Verano Holdings Corp.</b>	Public	VRNO – CSE	Cultivation & Retail	USA	3/1/2022	Upsized Credit Facility	\$100.0
<b>Trulieve Cannabis Corp.</b>	Public	TRUL – CSE	Cultivation & Retail	USA	1/28/2022	Private Placement	\$75.0
<b>Agrify Corporation</b>	Public	AGFY – Nasdaq	Agriculture Technology	USA	3/14/2022	Senior Secured Promissory Note	\$65.0
<b>AFC Gamma, Inc.</b>	Public	AFCG – Nasdaq	Real Estate	USA	5/2/2022	Senior Secured Revolving Credit Facility	\$60.0





# Capital raise activity

## H2 2022



US\$m

### Top 5 equity raises

	Public/private	Ticker	Sector	Country	Date	Transaction type	Transaction value
<b>Lusaris Therapeutics</b>	Private	-	Psychedelics	US	11/2/2022	Series A funding round	\$60.0
<b>Alleaves Incorporated</b>	Private	-	Software/media	US	7/19/2022	Series A funding round	\$40.0
<b>HEXO Corp.</b>	Public	HEXO - Nasdaq	Cultivation & retail	Canada	7/12/2022	Follow-on equity offering	\$40.0
<b>Gilgamesh Pharmaceuticals, Inc.</b>	Private	-	Psychedelics	US	12/19/2022	Series B funding round	\$39.0
<b>22nd Century Group, Inc.</b>	Public	XXII - Nasdaq	Biotech/pharma	US	7/30/2022	Registered direct offering	\$35.0

### Top 5 debt raises

	Public/private	Ticker	Sector	Country	Date	Transaction type	Transaction value
<b>Verano Holdings Corp.</b>	Public	VRNO - CSE	Cultivation & retail	US	10/27/2022	Refinanced credit facility	\$350.0
<b>Charlotte's Web Holdings, Inc.</b>	Public	CWEB - TSXV	Hemp	US	11/15/2022	Private placement of unsecured convertible debentures	\$56.7
<b>Trulieve Cannabis Corp.</b>	Public	TRUL - CSE	Cultivation & retail	US	12/21/2022	Commercial secured loan	\$71.5
<b>Jushi Holdings Inc.</b>	Public	JUSH - CSE	Cultivation & retail	Canada	12/8/2022	Private placement	\$69.0
<b>NewLake Capital Partners, Inc.</b>	Public	NLCP - OTCQX	Real estate	US	8/2/2022	Upsized credit facility	\$60.0

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**NJ CRC Fee Schedule.pdf**

Uploaded by: WENDY BRONFEIN

Position: FWA



## New Jersey Cannabis Regulatory Commission

### Fee Schedule

Effective August 19, 2021

*All fees are nonrefundable unless otherwise indicated by the Commission. Failure to pay the required fee at the designated time will result in denial or revocation of the license. Payment must be submitted as a certified check or money order, made payable to "Treasurer, State of New Jersey."*

APPLICATION & CERTIFICATION FEES				
	<i>Conditional License Applicant</i>		<i>Annual License Applicant</i>	
	Standard Business	Microbusiness	Standard Business	Microbusiness
Application Submission Fee	\$200	\$100	\$400	\$200
Approval Fee	\$800	\$400	\$1,600	\$800
Conditional Conversion Submission Fee	\$200	\$100	n/a	n/a
Conditional Conversion Approval Fee	\$800	\$400	n/a	n/a
Testing Laboratory Application Submission Fee	\$400			
Testing Laboratory Approval Fee	\$1,600			
Expanded ATC Certification Fee	Medical Cannabis Cultivator Expansion – \$400,000 Medical Cannabis Manufacturer Expansion – \$300,000 Medical Cannabis Dispensary Expansion – \$100,000 Vertically Integrated ATC with 1 dispensary – \$800,000 Vertically Integrated ATC with 2 dispensaries – \$900,000 Vertically Integrated ATC with 3 dispensaries – \$1,000,000			
<p><i>NOTE: Submission fees are due at the time an application is submitted. Approval fees are due upon Commission approval for licensure to operate. Applicants who are denied approval for licensure are not required to pay approval fees. Expanded ATC Certification Fees are due at the time the ATC submits its required certifications to the Commission.</i></p>				
LICENSING FEES <sup>A</sup>				
	<i>Standard Business</i>		<i>Microbusiness</i>	
Cultivator Licensing Fee <sup>†</sup>	Tier I – \$5,000 Tier II – \$10,000 Tier III – \$20,000 Tier IV – \$30,000 Tier V – \$40,000 Tier VI – \$50,000		\$1,000	
Manufacturer Licensing Fee <sup>‡</sup>	Up to 10,000 sq ft – \$20,000 More than 10,000 sq ft – \$30,000		\$1,000	
Retailer Licensing Fee	\$10,000		\$1,000	
Testing Laboratory Licensing Fee	\$4,000			

<sup>Δ</sup> *Licensing Fees are due upon application approval and each year thereafter when submitting a renewal application. The licensing fee for the first year of operation is reduced by the amount paid in application submission and approval fees.*

**Example:** *The licensing fee for a Testing Laboratory in the first year would be \$2,000 (\$4,000, less \$400 for application submission fee and \$1,600 for application approval fee). In the second year and every year thereafter, the Testing Laboratory would pay \$4,000 for the licensing fee.*

<sup>†</sup> *Cultivator Licensing Fees apply to all cannabis businesses with a Class 1 Cannabis Cultivator License, including microbusinesses and Expanded ATCs:*

*Tier I = Mature cannabis plant grow canopy area greater than 2,500 sq ft but no more than 10,000 sq ft*

*Tier II = Mature cannabis plant grow canopy area greater than 10,000 sq ft but no more than 25,000 sq ft*

*Tier III = Mature cannabis plant grow canopy area greater than 25,000 sq ft but no more than 50,000 sq ft*

*Tier IV = Mature cannabis plant grow canopy area greater than 50,000 sq ft but no more than 75,000 sq ft*

*Tier V = Mature cannabis plant grow canopy area greater than 75,000 sq ft but no more than 100,000 sq ft*

*Tier VI = Mature cannabis plant grow canopy area greater than 100,000 sq ft but no more than 150,000 sq ft*

<sup>‡</sup> *Refers to the square footage of the entire cannabis business premises, not solely the area in which manufacturing or processing is taking place.*

**CHANGE FEES (due at the time the change application is submitted)**

	<b>Standard Business</b>	<b>Microbusiness</b>
Location Change*	\$10,000	\$1,000
Facility Capacity or Physical Plant Change**	\$2,000	n/a
Majority Ownership Change***	\$20,000	\$20,000
Microbusiness Conversion Application Submission Fee	n/a	\$200
Microbusiness Conversion Approval Fee	n/a	\$800

\* *Location Change fees apply any time a cannabis business seeks to move the location any of its licensed premises. If a cannabis business has more than one facility or licensed premises, the license-holder must pay the change fee for each facility or premises that will be relocated.*

\*\* *Facility Capacity or Physical Plant Change fees apply any time a license-holder seeks to change or modify the cannabis business' cultivation capacity and move to a different cultivation production management tier. Microbusiness that are converting to a Standard Business do not incur a Facility Capacity or Physical Plant Change fee; after conversion, such businesses will be subject to the licensing fee for a Standard Business of their class.*

\*\*\* *Majority Ownership Change fees apply any time a license-holder seeks to transfer more than 50% of ownership interest in the license-holder to another person or entity.*

**OTHER FEES**

Cannabis Business Identification Card Issuance Fee (including replacement cards)	\$25
Background Investigation Fee	Financial Source – \$1,000 Management Services Contractor – \$1,000 For each owner or principal of a cannabis business or testing laboratory – \$250 per person <i>Conditional license applicants, conditional license-holders, and Social Equity Businesses are exempt from these fees.</i>

**Senate Testimony CW\_030923 hearing.pdf**

Uploaded by: WENDY BRONFEIN

Position: FWA



**Curio Wellness Written Comments  
SB0516 Hearing – Thursday, March 9, 2023**

**Founded and based in Maryland, [Curio Wellness](#) is a family-owned and operated cGMP certified cannabis company and trusted healthcare partner. We're dedicated to increasing the accessibility of high-quality cannabis to the growing population of citizens who seek safe, effective, and reliable products. Available in over 90 dispensaries across Maryland, our focus on **innovative and high-quality products and services** has made Curio the market leader in Maryland. Moreover, as an organization, Curio knows that a **diverse and inclusive workforce** creates an optimum workplace that attracts and retains talented employees and loyal customers. In fact, this commitment to diversity has been **present since inception** with Curio's inaugural leadership team comprising a multi-racial group of men and women. As the company has grown, so has its focus on a diverse team of workers and leaders. **Overall, 45% of the Curio Wellness workforce is female and 41% identifies as Black, Hispanic, Asian, or multi-racial. Among management, 48% are female and 21% identify as Black, Hispanic, or multi-racial.****

We appreciate the efforts of the Maryland Senate and House over the last several years and want to thank Senators Feldman and Hayes for their leadership on this transformative legislation. Crafting legislation of this nature is undoubtedly challenging and we recognize the nuance and balance needed to address the plethora of industry-related stakeholders. While Curio agrees with many of the provisions set forth in SB0516 and the program start date of July 1, 2023, below are some of our most pressing concerns.

**SUBSTANTIVE CONCERNS**

**I. DOSAGING**

A dosage distinction between medical and adult use cannabis is absent from the bill text. It is commonplace for this potency delineation to appear in the law itself and **we urge the General Assembly to provide clarity on this matter** rather than solely deferring to the regulator. As a matter of public safety, a dosage requirement is necessary as we introduce cannabis to all of-age Marylanders. Certainly, there are doses and delivery methods for cannabis that should remain exclusive to medical patients and are not recommended for everyone.

Additionally, we believe **high potency ingestible products should remain under the cGMP exemption, CFR 111, as they do today** in the medical program. This third-party accreditation **certifies a higher level of product quality, safety, and accountability**. As such, we would suggest the **unrestricted potency remain for medical patients** and that **adult-use** consumers be capped at **10mg per piece** with a 100mg max per package. In many ways, this is analogous to a prescription vs. over the counter (OTC) product – helping to **assure that new consumers are not over-served, and patient needs remain undisturbed**. As reference, the following states have set dosage limits for adult use consumers at:

- [NEW JERSEY Page 221 \(d\) 2 & 3:](#)  
**10mg per serving**, 100mg per package.
- [ARIZONA Page 44 R9-18-313. Edible Food Products 5b:](#)  
**10mg per serving**, 100mg per package.
- [CALIFORNIA Page 204 Article 2 Cannabinoid Concentration Limits \(a\) \(1\) \(2\):](#)  
**10mg per serving**, 100mg per package.
- [COLORADO:](#)  
**10mg per serving**, 100mg per package.
- [NEVADA NRS 678D.410 Requirements & restrictions concerning packaging and labeling:](#)  
**10mg per serving**, 100mg per package.
- [MA \(4\) Dosing Limitations:](#)  
**5mg per serving**, 110mg per package.

## II. CANOPY & LICENSING

Maryland's adult use program will turn on at a time when there has never been more data available around **best practices and economic realities of the cannabis industry**. We have seen how states have effectively expanded their medical programs to include adult use and those who have blundered the opportunity. Over the past 11 months, we have borne witness to first **major downturn** of the cannabis industry – a **sobering, and economically painful reality** experienced across the country and **here in Maryland**. This historical data provides clear direction with regards to the **delicate balance** required between **supply and demand** to ensure a viable legal market. This economic reality is further bolstered by the **punitive constraints** put upon the cannabis industry **due to our federal-state** conflict and the analysis by Ernst & Young. The **attachments provided** further explain the economic downturn and



the **impacts of over licensing and excessive canopy**, two primary pieces that contribute to **oversupply** and a **destabilized market**.

**Therefore, we respectfully request an amendment to the legislation to address the excessively high canopy cap of 300,000 sq. ft. and consider a more stable maximum canopy of 100,000 sq ft. per licensed grower.** With all existing and pre-approved cultivation licensees online, this suggested cap would provide the state with 2.2 million sq. ft. of canopy, which is more than enough to support the forthcoming demand of an adult use market in its earliest years -- and a total canopy commensurate with states like Massachusetts and Missouri that have a similar population to Maryland. Given the legislature's concern for preserved canopy, the lower cap not only helps to conserve future opportunity, but it also **puts new licensees in a better position to raise capital.**

As shared, the balance of the market depends not only on canopy, but overall number of licenses. The suggested endgame of **up to 75 standard cultivation licenses** is far too many even with a lower canopy cap. Again, **these inflated numbers send negative signals to the marketplace**, on the viability of Maryland's future, **and cause further retreat by investors, a message we have already begun to hear** as this bill is being contemplated by the Maryland General Assembly.

In hopes of ensuring an **equitable and economically viable** program, we recommend the following alterations:

Page 37 Lines 4-6 (*and all other appearances in the bill*)

(C) (1) A STANDARD LICENSE AUTHORIZES THE HOLDER OF THE LICENSE:

(I) FOR GROWERS, TO OPERATE MORE THAN 10,000 SQUARE FEET, BUT NOT MORE THAN ~~[300,000]~~ **100,000** SQUARE FEET, OF INDOOR CANOPY, **GREENHOUSE CANOPY**, OR ITS EQUIVALENT, AS CALCULATED BY THE DIVISION.

Page 41 Lines 2-3

(IV) FOR THE PURPOSE OF MEASURING CANOPY, 1 SQUARE FOOT OF INDOOR CANOPY **AND GREENHOUSE CANOPY** IS EQUAL TO 4 SQUARE FEET OF OUTDOOR **NO STRUCTURE** CANOPY.

### **III. FEES**

The proposed free structure for both conversion and renewal discount the impact 280e has on this industry-- particularly during a downturn in the overall market. Moreover, the **licenses the state awards** for each category type **have the same value and therefore all licensees within a particular category should be treated similarly.** The strength or weakness of any given operator is a byproduct of the vision, resolve, and execution of that team to actualize and efficiently run their business.



Therefore, we propose an equitable fee structure be bifurcated by license type: cultivation vs. processor vs. dispensary vs. laboratory, not tiered based on the success of any given business on a gross-revenue basis.

The Impact of federal constraints on this industry cannot be overstated and is an important consideration that the state must consider in the overall context of the cannabis markets.

As an example, we believe the following fee structure is appropriate relative to license type and means for license conversion and five-year renewal:

- Cultivators \$500,000
- Processors \$250,000
- Dispensaries \$100,000
- Laboratories \$100,000

We further encourage the legislature to consider that these fees are directly applied to addressing the capital needs of the HB2 winners along with the FY23 appropriations. The inability for HB2 licensees to operationalize in nearly three years highlights the capital access issues that plague our industry, particularly in the start-up phase. The State should seek to ensure the realization of their licenses awarded nearly three ago before further advancing licensure in state.

With regards to renewal fees, the same argument holds – using gross revenue as the applied metric discounts the impacts of 280e as well as penalizes success, disincentivizing entrepreneurs to succeed, due to the gouging measures proposed. Furthermore, with cannabis being moved under the ATC, it's disingenuous to creates such an egregious on-going renewal fee structure when alcohol licensees pay moderate flat renewal fees.

Attachments provided highlight fees structures from Illinois, New Jersey, Massachusetts Michigan, and Arizona. All states who launched adult use programs following the establishment of a medical program. We believe this further highlights the inequity of what is proposed in legislation and recommend the State attenuates these fees to more appropriate amounts.

#### IV. DISPENSARY OWNERSHIP INTEREST

We do not agree with the reduction of ownership interest relative to dispensaries from the current law of four to two for the following reasons:

1. The majority of MSOs are already in the state and have met their max of four dispensaries so any future licenses would not be impacted by their consumption.





2. No different than the MSO's, Curio wants to **preserve the right of businesses to expand** their operations and partnership opportunities in the future.
3. If the state seeks to **create generational wealth** for new licensees than the creation of a **retail (dispensary) chain is an optimal opportunity**. Thus, reduction to no more than two dispensaries per operator **removes a meaningful economic lever and generational wealth creation opportunity**.
4. Considering the proposition of adding up to 200 more dispensaries, with the current law in play, if all new ownership consolidated, which is highly unlikely, the state would be left with 50 competitors. Any given community does not have this many competitors for traditional products – grocery, coffee, home goods, etc.so the cannabis Industry should not be an outlier.
5. **The proposed reduction does not consider the consumer experience and the importance of consumer choice.** The reason that brands and chains proliferate is because consumers are given high quality repeatable experiences. The strength of the Maryland marketplace will be an accessible distribution of retail outlets that provide consumers with consistent, high-quality experiences that align with their values and economic needs.

We also recommend that with the activation of any new dispensary licenses, **HB2 pre-approved Cultivators are designated a dispensary license**. This allows their opportunity to **mirror that of the 2016 pre-approved cultivators and ensure a point of distribution** from day one.

With the above considered, we respectfully suggest the bill reverts to current law as highlighted here:

Page 38 Lines 15-18

(I) FOR STANDARD LICENSES AND MICRO LICENSES:

1. ONE GROWER LICENSEE; **WITH GROWER LIMITED TO ONE PHYSICAL LOCATION REGARDLESS OF CANOPY SIZE.**
2. ONE PROCESSOR LICENSEE; AND
3. NOT MORE THAN ~~TWO~~ **FOUR** DISPENSARY LICENSEES;



## V. ADVERTISING

**The medical cannabis program has served the state for five years without incident or obscenity when it comes to advertising.** The Commission went through an arduous process in 2018 resulting in a final draft of advertising regulations that are fair and equitable. **The changes proposed in the bill not only compromise a licensee’s ability to fairly market their business, educate and attract customers, they also regulate areas of media where constraints are not warranted.**

Taking the latter first, given the federal-state conflict **there a very limited number of outlets a cannabis company can engage in traditional advertising.** Television and radio are not viable outlets as networks and conglomerates will not allow cannabis advertising on their channels. Similarly, social media platforms have highly restrictive community guidelines that make it increasingly hard to feature a cannabis business or brand and direct advertising is virtually not allowed – i.e., they will not allow you to buy ads on their sites, just like the TV and Radio networks.

**With regards to billboards and other forms of signage, we do not support the proposed changes.** This type of advertising has been **effectively used for five years within the confines of the laws** to ensure the images portrayed are not indecent or obscene. It also has **provided a countless number of vendors, printers, and sign companies a new and valuable revenue stream** -- an example of the offshoot economic impact our industry provides.

Nonetheless, **the ability to advertise through any given outlet should be the right of the media company to decide. Therefore, the state should be focused on providing parameters that ensure factual and tasteful messaging that is neither attractive to minors, nor usurps any established brand, and a regulator who punishes those who do not comply.**

With the above considered, we respectfully submit the bill reverts to current law as highlighted here:

Page 65 Lines 11 – 15

(3) ENGAGE IN ADVERTISING BY MEANS OF TELEVISION, RADIO, INTERNET, MOBILE APPLICATION, SOCIAL MEDIA, OR OTHER ELECTRONIC COMMUNICATION, OR PRINT PUBLICATION, UNLESS AT LEAST ~~85%~~ **75%** OF THE AUDIENCE IS REASONABLY EXPECTED TO BE AT LEAST 21 YEARS OLD AS DETERMINED BY RELIABLE AND CURRENT AUDIENCE COMPOSITION DATA; OR



~~(4) ENGAGE IN ADVERTISING BY MEANS OF PLACING AN ADVERTISEMENT ON THE SIDE OF A BUILDING OR ANOTHER PUBLICLY VISIBLE LOCATION OF ANY FORM, INCLUDING A SIGN, A POSTER, A PLACARD, A DEVICE, A GRAPHIC DISPLAY, AN OUTDOOR BILLBOARD, OR A FREESTANDING SIGNBOARD.~~

**CONSIDER REPLACING WITH CURRENT GUIDANCE ON SIGNAGE:** DO NOT place ads within 500 feet of a: School, Licensed Child Care Facility (including registered home childcare centers), Substance Abuse or Treatment Facility, Library or Recreation Center, Public Park, or Playground (This does not apply to ads placed on property owned or leased by a grower, processor, or dispensary).

## **VI. TRANSFER OF OWNERSHIP**

The proposal of a **five-year lock for any converted license should be rescinded**. Current operators were incentivized to apply for licenses in 2015 under a specific set of parameters and subsequently raised capital and built businesses of this outline. Shortly into the legalized program, the state changed the game locking up licenses for a period of three years. It is an overreach to reinstate a new moratorium period with conversion to a comprehensive license. This constraint restricts licensees, existing or future, from making the most basic but important business decision they may face: when to buy or sell their business.

Due to federal constraints, capitalizing the cannabis industry is incredibly challenging, with many traditional banks and investors wary of taking this risk. If we want a truly robust adult use market in Maryland, we need to have flexibility for partnership and investment. Like the negative impacts of excessive canopy and over-licensing, **license lockup is a negative signal to the investor community**. This is another parameter that has **already had outside investors** stating they are **not interested in supporting current or future Maryland licensees**.

With the above considered, we respectfully submit the bill rescinds language provided below:

~~(C) (1) A CANNABIS LICENSEE, INCLUDING A CANNABIS LICENSEE WHOSE LICENSE WAS CONVERTED IN ACCORDANCE WITH § 36-401 OF THIS TITLE, MAY NOT TRANSFER OWNERSHIP OR CONTROL OF THE LICENSE FOR A PERIOD OF AT LEAST 5 YEARS FOLLOWING LICENSURE.~~



**VII. FUND PARTICIPATION**

In 2020, Curio Wellness announced the formation of a \$30MM Fund to support women, minority, and disabled veteran dispensary entrepreneurs. This Maryland founded initiative is rooted in increasing industry diversity via investment opportunities and licensed operations. The Fund itself has nearly 40% diverse investors, part of the value proposition to have diverse entrepreneurs investing in diverse licensees. From a licensed operations perspective, the franchise provides prospective and/or existing dispensary licensees with a proven retail model and related operational support. In an industry where access to capital is the biggest hurdle to success, this fund is a revolutionary approach to solving financial constraints while increasing diverse participation.

Far & Dotter is currently launching its first **fund-supported** dispensary licensee in **Mississippi** with **candidates to follow in New Jersey and Massachusetts**. As a **Maryland based company**, the organization would **very much like to bring the financial support of the Fund to Maryland entrepreneurs**.

With the above considered, we recommend the following alterations:

Page 39 Lines 1 – 4

(II) THE DIVISION SHALL ADOPT REGULATIONS **TO ALLOW** ~~LIMITING~~ A PERSON OR FUND **TO ACQUIRE** ~~FROM ACQUIRING~~ A NONMAJORITY OWNERSHIP INTEREST IN MULTIPLE CANNABIS BUSINESSES BEYOND THE LIMITATIONS ESTABLISHED UNDER THIS SUBSECTION.

(FF) “SOCIAL EQUITY APPLICANT” MEANS AN APPLICANT FOR A CANNABIS 11 LICENSE OR CANNABIS REGISTRATION THAT:

(1) HAS AT LEAST **60**~~65~~% OWNERSHIP AND CONTROL HELD BY ONE OR 13 MORE INDIVIDUALS WHO:

(I) HAVE LIVED IN A DISPROPORTIONATELY IMPACTED AREA FOR AT LEAST 5 OF THE 10 YEARS IMMEDIATELY PRECEDING THE SUBMISSION OF THE APPLICATION; OR

(II) ATTENDED A PUBLIC SCHOOL IN A DISPROPORTIONATELY IMPACTED AREA FOR AT LEAST 5 YEARS; OR

(2) MEETS ANY OTHER CRITERIA ESTABLISHED BY THE COMMISSION BASED ON THE RESULTS OF A DISPARITY STUDY



## **CONCLUSION**

Over the past five and half years, **Curio has done exactly what we said we would do in our application to obtain a medical cannabis grower license here in Maryland.** Not only have we remained steadfast in our promise to deliver high quality, safe and innovative medical cannabis to Maryland's certified patient population through constant research and development, but we have also maintained a constant drive to reinvest in our people, processes, and products. As Maryland adopts an adult use system, Curio Wellness would like to lend its experience as industry leader in the medical market to help develop diverse, successful, and economically viable adult use and medical programs.

For more information, please contact:

Wendy Bronfein

Co-Founder, Chief Brand Officer & Director of Public Policy

[Wendy.Bronfein@curiowellness.com](mailto:Wendy.Bronfein@curiowellness.com)

Attachments:

- Ernst & Young, The Cannabis Capital Flow
- Ernst & Young, 2023 Cannabis CEO Survey Report
- Cannabis Industry Articles \_ Economic Climate & Decline\_2019 to 2023
- State Comparison \_ Medical to AU Fee Schedules
- NJ CRC Fee Schedule



# **State Comparison \_ Medical to AU Fee Schedules .pd**

Uploaded by: WENDY BRONFEIN

Position: FWA

State	Adult Use Commencement Date	Initial Application Fee At Program Commencement (if applicable)	Initial License Fee(\$)	Annual Renewal Fee(\$)	Notes
Massachusetts	November 20, 2018	Cultivation: \$100 - \$2,000 \$1,500 Manufacturing: Retail: \$1,500	Cultivation: \$200 - \$50,000 Manufacturing: \$10,000 Retail: \$10,000	Same as initial license fees	Same fee structure for existing medical and newly licensed locations. Medical Registered Marijuana Dispensaries (RMD's) open prior to AU were able to get priority status for state license processing, but were still reliant on their municipality opting into adult use early in the program to make use of it.
Michigan	December 1, 2019	\$6,000 per licensed entity	Cultivation: \$4,000 - \$40,000 Processor: \$40,000 Retail: \$25,000	<b>Pre March 7, 2022</b> Renewals Tiered by Volume Cultivation: \$20,000 - \$50,000 Processor: \$20,000 - \$30,000 Retail: \$20,000 - \$30,000 <b>Post March 7, 2022</b> Cultivation: \$1,200 - \$24,000 Processor: \$24,000 Retail: \$15,000	New license application, not a conversion for existing medical stores. Fee structure the same for existing and newly licensed locations. No state preferential treatment or guarantees for existing medical licensees to be able to add adult-use sales. Local approvals required prior to state licensing. When the AU program began many municipalities with existing medical stores allowed those stores to be grandfathered into adult use.
Illinois	January 1, 2020	N/A	Cultivation: \$100,000 for permit & 5% of 1 year annual sales or \$500,000, whichever is less* Retail: <i>Primary Location</i> - \$30,000 for permit & 3% of 1 year annual sales or \$100,000, whichever is less* <i>Secondary Granted Location</i> - \$30,000 & \$200,000* (processors vertically integrated with cultivators)	Cultivation: \$100,000 Retail: \$60,000 bi-annual	Only medical operators were qualified for the first round of Adult Use licenses for their existing stores. Every store operating received the rights to an additional license. Subsequent licensing rounds had the new entrants paying an additional \$5,000 application fee not levied on the existing medical operators.
Arizona	January 22, 2021	N/A	\$25,000 for existing medical establishments	\$5,000	Roughly 110 existing medical operations were non-profit verticals. If in good standing were allowed to be early applicants for dual (med and rec) licenses. Few licenses made available beyond that cohort.
New Jersey	April 21, 2022	<b>Expanded ATC Certification Fee Schedule for Existing Medical Operators</b> Cannabis Cultivator Expansion - \$400,000 Medical Cannabis Manufacturer Expansion - \$300,000 Medical Cannabis Dispensary Expansion - \$100,000 Vertically Integrated ATC with 1 dispensary - \$800,000 Vertically Integrated ATC with 2 dispensaries - \$900,000 Vertically Integrated ATC with 3 dispensaries - \$1,000,000	N/A	Cultivator: \$5,000 - \$50,000 Processor: \$20,000 - \$30,000 Retail: \$10,000	

\*The additional payments go to business development fund to subsidize social equity applicants in subsequent licensing rounds

**SB 516 - Cannabis Reform - SWA - MMCC\_Tilburg.pdf**

Uploaded by: William Tilburg

Position: FWA





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**BILL NO: SB 516**

**COMMITTEE: Finance**

**POSITION: FWA**

**TITLE:** Cannabis Reform

**BILL ANALYSIS:** Senate Bill 516 establishes a comprehensive framework for the legalization, regulation, and taxation of cannabis. The bill provisions that directly impact the Maryland Medical Cannabis Commission (the “Commission”) would (1) eliminate the Commission and repeal the medical cannabis statutes codified at Health-General Article, §§13-3301-13-3316, (2) re-codify medical cannabis provisions as part of a broader medical- and adult-use cannabis program and market under “Division III. Cannabis” of the Alcoholic Beverages Article; (3) transfer all Commission staff to the newly established Cannabis Regulation and Enforcement Division (the “Division”) of the Alcohol, Tobacco, and Cannabis Commission to oversee the regulation of medical- and adult-use cannabis; (4) require the Division to establish and maintain a State cannabis testing laboratory; (5) require the Division to convert medical cannabis licenses to licenses to operate medical- and adult-use cannabis businesses; and (6) require the Division to solicit applications and license cannabis businesses, promulgate emergency and permanent regulations governing cannabis, and enforce statutory and regulatory provisions related to cannabis.

**POSITION AND RATIONALE:** The Maryland Medical Cannabis Commission supports Senate Bill 516, with the proposed amendments outlined below.

The Commission commends Chair Wilson for establishing a comprehensive and equitable framework for the legalization, regulation, and taxation of cannabis for individuals 21 years of age or older that also preserves and strengthens Maryland’s best-in-the-nation medical cannabis program.

Senate Bill 516 (SB 516) prioritizes equity in licensing and seeks to ensure that individuals and communities harmed by cannabis prohibition and enforcement are able to access the economic opportunities associated with cannabis legalization. Twenty states and the District of Columbia have legalized adult-use cannabis and SB 516 incorporates many important lessons learned from these jurisdictions, including:

- Establishing exclusive social equity applicant licensing rounds for individuals and businesses from communities disproportionately harmed by cannabis prohibition and enforcement;
- Providing access to capital – in the form of grants and no-interest loans – and technical application and operational assistance to businesses that qualify as social equity applicants;
- Establishing new license categories (e.g., on-site consumption, incubator) and classes of licenses (e.g., micro businesses) that require less capital to operationalize;
- Eliminating non-violent cannabis convictions as a barrier to employment in the cannabis industry;
- Establishing a low tax rate that can better position the legal market to compete with unlicensed operators;

- Ensuring individuals 21 years or older have access to legal, tested cannabis beginning on July 1, by converting existing medical licensees to medical- and adult-use licensees, if the businesses pay a one-time conversion fee;
- Limiting the production of converted licensees to ensure market share is preserved for additional businesses;
- Creating an Office of Social Equity that will assist social equity applicants and small-, minority- and women-owned businesses apply for licenses and obtain financing for their businesses; and
- Eliminating barriers to entry for small businesses, such as property requirements, high application fees, and competitive scoring applications.

The Commission would like to highlight two aspects of the bill in particular:

1. Preserving and strengthening of the medical cannabis program. While SB 516 eliminates the Medical Cannabis Commission, it retains the laws and regulations that have made Maryland the highest rated medical cannabis program in the nation, including a top score for Consumer Protection and Patient Safety (*see the 2022 State of the States Report* published by Americans for Safe Access – the nation’s largest medical cannabis nonprofit). In fact, the bill strengthens the medical program by:
  - Requiring dispensaries to ensure adequate product supply for patients, and establishing operating hours exclusively for patients;
  - Establishing a state cannabis laboratory to develop a cannabis laboratory reference library, establish SOPs for product testing, conduct proficiency testing on testing laboratories, and remediate any issues with testing laboratories;
  - Expanding the Compassionate Use Fund to reimburse eligible participants for the costs associated with a medical assessment of the patient’s medical history and current medical condition;
  - Establishing a research license to conduct clinical investigations of cannabis-derived medicinal products and other research on the efficacy and safety of medical cannabis; and
  - Maintaining the best practices established through the State’s medical cannabis program, with clear direction to apply the same high standards for health, safety, security, and testing to adult-use cannabis products.
2. Access to capital and technical legal, business, and operational support for social equity businesses. In 2018, the General Assembly authorized the Commission to undertake an additional licensing round for growers and processors to address the needs of small-, minority- and women-owned businesses. This licensing round resulted in 14 out of 14 licenses being awarded to minority-owned firms, and 10 out of 14 being awarded to black-owned firms. However, these businesses have faced challenges accessing capital and securing the legal, business, and operational support necessary to build-out a cannabis facility and compete with existing operators. More than two years after award a majority of these businesses are not operational. SB 516 addresses this gap by creating multiple pathways for social equity businesses (including SB 2 awardees) to secure capital (e.g., grants, no interest loans, loan loss reserve program), reserves standard licenses to allow micro licensees (exclusively held by social equity businesses) to grow their businesses, and requiring the Division and the Office of Social Equity to procure business development and other technical assistance services to support social equity businesses.

SB 516 presents a bold vision for cannabis reform in Maryland that combines the stringent testing, consumer safety, and product quality standards of the State’s medical program with innovative and expansive approaches to equity and licensing. The Commission proposes to further strengthen the bill with the following amendments.

1. Merge the Cannabis Public Health Advisory Council and the Advisory Board on Medical and Adult-use Cannabis. The Cannabis Public Health Advisory Council (the ‘Council’) was established under SB 837 (2022) to study and make recommendations on public health issues related to medical and adult-use cannabis, including advertising, labeling, testing, and public health campaigns. Membership of the Council consists of representatives of state agencies (e.g., cannabis, health, agriculture, schools, and behavioral health) and cannabis and public health experts. Similarly, SB 516 proposes to establish the Advisory Board on Medical and Adult-use Cannabis (the ‘Board’), which provides recommendations on the regulation of cannabis in the State and consists of cannabis and public health experts, and industry representatives. Given the overlapping subject matter, membership, and purpose of these two advisory bodies, the Commission recommends merging the Advisory Council and Advisory Board. Merging the advisory bodies will eliminate the potential for redundant or conflicting findings and recommendations being presented to the Division and General Assembly by two separate advisory bodies.
2. Clarify the Office of Social Equity oversees the ‘Qualifying Partnership’ grant program. Section 1-323 of the bill creates a ‘qualifying partnership’ grant program where an operational licensee can receive grant funds to train, mentor or share space or equipment with a social equity licensee. As introduced the grant program is administered by the ‘Commission’ without specific reference to the Office of the Executive Director, Cannabis Regulation and Enforcement Division, Office of Social Equity, or another unit. The Commission recommends clarifying that the grant program will be administered by the Office of Social Equity (OSE), because OSE advises in the management of other grant and loan programs under the bill, works closely with social equity licensees, and is the subject matter expert on social equity.
3. Clarify that a medical cannabis licensee must meet the ownership restrictions proposed in §36-401 in order to convert to a medical and adult-use cannabis business. Section 36-401 requires the Division to convert medical cannabis licensees on or before July 1, 2023, if the business pays the required conversion fee in accordance with §36-403. No additional criteria are established for conversion. However, §36-401(e) prohibits a person or entity from having an ownership interest in, or control of, more than one grower license, more than one processor license, or more than two dispensary licenses. Currently, at least 10 businesses hold an ownership interest in, or control of, a prohibited number of cannabis licenses in the State. Arguably, §36-401(b)(ii) would allow these businesses to convert if they pay the required fee, in contravention to §36-401(e). The Commission recommends amending §36-401(b)(ii) to expressly require a licensee to comply with the ownership restrictions in §36-401(e) in order to convert its license.
4. Allow for the conversion fee to be paid by medical cannabis licensees over time. Section 36-401 requires medical cannabis licensees to pay a one-time fee to convert their licenses to medical- and adult-use cannabis businesses. The conversion fees range from \$100,000 to \$2.5 million based on annual gross revenue. Due to significant decreases in the wholesale price of cannabis in the State (down nearly 25% in 2022 compared to 2021) and continuing high federal tax burdens, the Commission estimates that many licensees, particularly small, independent businesses, will not be able to the conversion fee prior to July 1. The

Commission therefore recommends that the bill clarify that the conversion fee can be paid over a series of payments (e.g., 4 equal payments over 24 months). Failure to make any payment should result in a suspension of the businesses' operations and/or other sanctions on the license.

The Commission would appreciate a favorable report on SB 516, with the proposed amendments. For more information, please contact Andrew Garrison, Deputy Director of Policy and Government Affairs at [andrew.garrison@maryland.gov](mailto:andrew.garrison@maryland.gov) or (443) 844-6114.

*This position does not necessarily reflect the position of the Maryland Department of Health or the Office of the Governor.*

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# **Joint Letter Opposition ALA Heart Cannabis Reform**

Uploaded by: Aleks Casper

Position: UNF



Joint Letter American Lung Association and American Heart Association Senate Bill 516  
Finance & Budget and Taxation Committees  
February 17, 2023  
Opposition

Chair Griffith, Chair Guzzone and Members of the Committees:

Thank you for the opportunity to provide comments on Senate Bill 516, Cannabis Reform. The American Lung Association and American Heart Association currently do not have a position on the legalization of recreational marijuana however, we are **opposed** to the section beginning on page 50 which would allow for the on-site consumption of marijuana indoors and the creation of food establishments that can allow onsite consumption by way of permitting. By allowing for the consumption of marijuana indoors it would significantly undermine the strong protections outlined in Maryland's Clean Indoor Air Act.

The American Lung Association is the leading organization working to save lives by improving lung health and preventing lung disease, through research, education and advocacy. The work of the American Lung Association is focused on four strategic imperatives: to defeat lung cancer; to improve the air we breathe; to reduce the burden of lung disease on individuals and their families; and to eliminate tobacco use and tobacco-related diseases.

The American Heart Association is a relentless force for a world of longer, healthier lives. We are dedicated to ensuring equitable health in all communities. Through collaboration with numerous organizations, and powered by millions of volunteers, we fund innovative research, advocate for the public's health and share lifesaving resources.

The American Lung Association and American Heart Association strongly believe that the use of marijuana should be prohibited in all places where the smoking of other tobacco products are prohibited. We have continued to fight for laws and policies to make our communities in Maryland and across the country smokefree. All Americans deserve to live, work, study and play in smokefree environments. By implementing smokefree environments, all workers and patrons can be protected from the dangers of all types of secondhand smoke, including marijuana smoke.

The current Clean Indoor Air statute in Maryland, has a significant loophole by not currently including the use of electronic smoking devices. Under House Bill 566 as drafted it could potentially exacerbate this loophole and allow for the vaping and smoking of marijuana

indoors. The American Lung Association and American Heart Association are extremely concerned by this and the potential exposure to harmful secondhand smoke and aerosol to Marylanders. Since marijuana smoke harms lung health, the American Lung Association opposes the inhalation of smoke or aerosol of marijuana. The American Lung Association and American Heart Association supports measures to require totally smokefree environments, including prohibiting the smoking or vaping of marijuana.

Secondhand marijuana smoke contains many of the same toxins and carcinogens found in directly inhaled tobacco smoke. The toxins can cause lung irritation, asthma attacks, and make respiratory infections more likely. Exposure to secondhand marijuana smoke can exacerbate health problems especially for people with respiratory conditions like asthma, bronchitis, or COPD.

Senate Bill 516 could also be outside the scope of what Marylanders thought they voted for on the 2022 ballot. [The ballot measure description stated](#), “Do you favor the legalization of the use of cannabis by an individual who is at least 21 years of age on or after July 1, 2023, in the State of Maryland?”. At the time voters most likely didn’t know that this legalization would include allowing onsite indoor consumption and exposure to secondhand smoke or the possibility of drifting smoke into their neighboring businesses or residences.

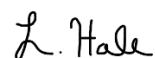
The U.S. Surgeon General has concluded that there is no safe level of exposure to toxic secondhand smoke.<sup>1</sup> The U.S. Surgeon General has also concluded that separating smokers from nonsmokers, cleaning the air, and ventilating buildings cannot eliminate exposure of nonsmokers to secondhand smoke. In addition, in a 2016 report, the Surgeon General concluded that secondhand e-cigarette emissions contain, “nicotine; ultrafine particles; volatile organic compounds such as benzene, which is found in car exhaust; and heavy metals, such as nickel, tin, and lead.”<sup>2</sup> The only effective way to fully protect nonsmokers from exposure to secondhand smoke and aerosol is to completely eliminate smoking and vaping in indoor public spaces.<sup>3</sup> We would request the bill be amended to ensure that marijuana cannot be consumed on site in food establishments that seek an exemption.

The American Lung Association and American Heart Association thanks the Maryland General Assembly for their continued commitment to the health and wellbeing of the residents of Maryland and urges the committee to amend the section that would allow for indoor consumption of marijuana in any venue in the bill as it moves forward.

Sincerely,



Aleks Casper  
Director of Advocacy, Maryland  
202-719-2810  
[aleks.casper@lung.org](mailto:aleks.casper@lung.org)



Laura Hale  
Director of Government Relations  
336-480-4829  
[laura.hale@heart.org](mailto:laura.hale@heart.org)

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<sup>1</sup>U.S. Department of Health and Human Services (HHS). *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006.

<sup>2</sup> U.S. Department of Health and Human Services. *E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General—Executive Summary*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

<sup>3</sup>HHS, 2006.



# **Opposition of SB 516 - Cannabis Reform.pdf**

Uploaded by: Colby Ferguson

Position: UNF



# Maryland Farm Bureau, Inc.

3358 Davidsonville Road • Davidsonville, MD 21035 • (410) 922-3426

March 9, 2023

To: Senate Finance Committee

From: Maryland Farm Bureau, Inc.

Re: **Opposition of SB 516 - Cannabis Reform**

On behalf of our member families, I submit this written testimony opposing the Hemp related sections of SB 516. This omnibus cannabis reform bill does several things. It renames the Alcohol and Tobacco Commission to be the Alcohol, Tobacco, and Cannabis Commission. It establishes a regulatory and licensing system for adult-use cannabis and imposes the sales and use tax on the sale of adult-use cannabis. The bill establishes the Cannabis Regulation and Enforcement Division in the Commission and requires the Division, on or before July 1, 2023, to convert medical cannabis licenses to licenses to operate a medical and adult-use cannabis business. Lastly and most importantly as it relates to agriculture, the bill amends the hemp industry language to further restrict the CBD side of the hemp industry to a point where one would need to have a cannabis license to participate in the CBD side of the Hemp industry. Thus, killing the federally legal hemp industry to allow the federally illegal cannabis industry to monopolize the entire market.

When the 2018 federal Farm Bill was passed, it decoupled Hemp from cannabis and allowed the states to create permits to allow hemp farming in the US. Shortly after that bill passed and was signed into law by the President, USDA rolled out an interim regulations for states to use to regulate the new industry. These are the regulations Maryland Department of Ag adopted and uses today. After a year of review, USDA made some changes and rolled out their final regulations for Hemp. Unfortunately, one of the changes made by USDA was the change from 0.3% delta-9- THC concentration in the plant to 0.3% total THC in the plant. This change took the vast majority of Hemp growers and made their crops illegal because they tested over the 0.3% total THC. Even though the delta-9 was below 0.3%. This resulted in over 40% of all the hemp grown in 2022 to have to be destroyed.

This bill doesn't address these issues and actually makes it worse, by moving these "hot crops" to a cannabis license and allows the cannabis industry to monopolize the entire market from healthy alternatives (CBD products) to recreational marijuana. We hope this is not the intent of the legislature and request the legislature address this with one of these two options. (1) remove the hemp language from this bill and address the hemp issues in SB 508 - Hemp Farming Program - Use of Hemp and Hemp Products in Consumable Products; or (2) revise the hemp language in this bill to address the hemp industry issues with the following amendments:

**Amendment #1:**

On Page 18, line 20, add to the end of the sentence: **UNLESS REMEDIATED TO 0.3% DELTA-9-TETRAHYDROCANNABINOL CONCENTRATION OR LESS**

**Rationale:** This would allow a hemp farmer that has a "hot" crop, due to weather conditions or harvest timing, to remediate that harvest down to the legal 0.3% Delta-9 THC without having to destroy the crop or made to get a cannabis license.

**Amendment #2:**

On Page 69, Lines 24 & 25: Delete **0.5** and replace with **3** and delete **2.5** and replace with **90**

**Rationale:** This would allow this section to be consistent with the Cannabis definition found on Page 19, lines 16-20. Based on the concentrations on page 69 lines 24 & 25, if not changed, would reduce the Hemp derived Delta-9 THC level from 0.3% as defined on page 18 of the bill down to 0.01% Delta-9 THC. This is 30 times lower than what is allowed on Page 18.

**MARYLAND FARM BUREAU RESPECTFULLY OPPOSES SB 516 UNLESS THE HEMP LANGUAGE IS PROPERLY ADDRESSED.**

A handwritten signature in black ink, appearing to read "Colby Ferguson", with a long horizontal flourish extending to the right.

Colby Ferguson  
Director of Government Relations

*For more information contact Colby Ferguson at (240) 578-0396*

**support doc # 7.pdf**

Uploaded by: Debra Roy

Position: UNF

# Amsterdam plans to ban smoking of weed from Red Light District streets

BY HANNAH SAMPSON

In their latest effort to rein in carousing visitors, Amsterdam officials recently announced plans to tamp down disruptive behavior in the city's Red Light District, including barring pot-smoking on the streets, reducing hours for restaurants and brothels, and tightening some alcohol restrictions.

The rules are meant to ease the effects of hordes of some-

times-rowdy tourists on people who live in the area. An announcement from the city council referenced an alcohol- and drug-fueled atmosphere at night that makes the neighborhood unsafe and prevents residents from sleeping.

Officials are taking public comments on many of the proposed measures before finalizing amendments to municipal by-laws.

Under the recently announced

measures, the smoking ban would go into effect in mid-May. The city could take more action if the ban doesn't go far enough to reduce nuisance behavior.

Also under consideration: banning to-go sales of drugs at coffee shops at certain times and potentially restricting smoking on cafe terraces.

The Netherlands has a tolerance policy for weed, meaning people will not be prosecuted for buying up to five grams of cannabis, which is classified as a "soft drug" and is sold in coffee shops. Only visitors 18 and older can enter cannabis cafes, which are not allowed to sell alcohol. Although weed can be consumed in coffee shops, most clubs or bars do not allow people to smoke pot on-site.

The city issues permits for

brothels and sex clubs to operate. Under rules that had already been decided, brothels will only be able to stay open until 3 a.m., not the 6 a.m. closing time in place now. Restaurants and sex establishments with catering licenses will have to close at 2 a.m. on Fridays and Saturdays, rather than 3 or 4 a.m.

No new visitors would be allowed into businesses with a catering license after 1 a.m., the English-language publication NL Times reported. The time changes would go into effect April 1, the publication said.

Officials also want to close terraces at 1 a.m. in summer, a change from the previous closing time of 2 a.m.

Alcohol sales at stores and cafeterias in the district will continue to be blocked starting

at 4 p.m. from Thursday through Sunday. The city says alcohol displays must also be removed from the shops or hidden from view. Visitors are already not allowed to drink on the streets.

Amsterdam has tried for years to address overtourism concerns, restricting some tours of the historic Red Light District before the pandemic and voting to move sex workers to an erotic center outside of the district in 2021. According to a November story in the Guardian, however, residents of the proposed neighborhoods for relocation don't want the businesses — and the workers also don't want to move.

Late last year, authorities said they planned to take steps to combat tourism problems, including limiting river cruises,

curbing rowdy bachelor parties, cracking down on organized pub crawls and taking other measures. Part of the plan included some of the rules announced recently, such as reducing hours for sex businesses and catering establishments and banning smoking in some parts of the city.

A campaign is expected to start this year discouraging global visitors who want to party hard in the city.

"Amsterdammers live in every neighbourhood, including the Red Light District and Leidseplein," says the official visitor information site I Amsterdam. "Limit noise and drunkenness, clean up your mess and don't pee in the canals. Keep in mind the locals and they will welcome you with open arms."

File with  
Debra Rog NYT 12-31-22

# Wait, Is My Dog Stoned?

**Jean Hanff Korelitz**

The author of the novels "The Latecomer" and "The Plot."

**O**N THANKSGIVING morning, our dog, Sherlock, ate his usual breakfast and went for his usual walk, on which he performed his usual bodily functions before returning to his usual spot on his (that is, our) bed.

"Something's wrong with Sherlock," my son announced an hour later, after which the dog bolted into the room and began to jerk uncontrollably. We tried to calm him down, but he was twitching violently and was plainly terrified. Briefly, I persuaded myself that he was experiencing some comical form of hiccups, but even I, with my considerable aptitude for self-delusion, had to give that up as he shook and flinched. Finally, my husband and I bowed to the inevitable. We had to get Sherlock to a veterinary emergency room.

As we made our way to the Schwarzman Animal Medical Center in Manhattan, I tried to prepare myself. Whatever this was, it wasn't going to be benign. My money was on something neurological, but what came on like this, out of the blue? A brain tumor? A stroke? (Do dogs even have strokes?) Could it be something crazily exotic, like kuru? (I once read a book about it, a prion disease from Papua New Guinea acquired from the ritualized consumption of dead relatives' brains.)

Years ago, I had a sweet dog named Angus that began frantically turning circles one morning and by the end of that day was in terminal organ failure. As we drove through Central Park, I was bracing for something along those lines.

Here's the diagnosis I wasn't expecting, which Sherlock received on arrival in the E.R.: acute cannabis intoxication from something — likely the butt of a joint — he had gobbled up off the street.

In the past couple of months, two dispensaries opened on my block on the Upper West Side, and that's in addition to the mobile store that appeared last year. All three seem to be thriving — not a surprise in a neighborhood with plenty of college students and left-leaning voters (a constituency to which I belong). I never thought twice about any of it until my dog nearly died.

According to Dr. Carly Fox, a senior veterinarian at Schwarzman, marijuana toxicity is now a common presentation in veterinary emergency rooms. Severity depends on the amount ingested and the size, age and health of the animal, and most dogs exhibit

## I knew to steer Sherlock away from many sidewalk hazards, but not weed.

uncoordinated gait, dribbling urine, an exaggerated reaction to normal stimuli — that would be the flinching and trembling — bradycardia (low heart rate) and mild hypothermia. Severe cases progress to respiratory depression, seizures and occasionally death.

On the plus side, most vets have now seen enough cannabis poisoning to know what it looks like. The Animal Poison Control Center reported an increase of 765 percent in calls about pets ingesting marijuana from 2008 to 2018, well before the mobile dispensary arrived on my block, let alone the two brick-and-mortar locations. From 2020 to 2021, there was a 60 percent jump in possible marijuana toxicity in pets. As in Sherlock's case, it's common for animals to exhibit clinical signs soon (one to two hours) after a walk outside, though it can take up to four hours in some cases.

Anyone who's ever walked a dog on a New York sidewalk knows that to a canine, the

pavement is a veritable smorgasbord, its delights ranging from the merely olfactory to various comestibles attractive to human taste buds and . . . not. In short, walking your dog in this city is like asking any of us to run amok in Jean-Georges Vongerichten's new Tin Building food emporium, only it's full of signs screaming: Help yourself! It's all free!

Even if it took about a nanosecond for the emergency room vets to identify what was wrong with Sherlock, most dog owners are as ignorant as I was about this particular danger underfoot. To them I say, the sidewalks of New York are now a dispensary all their own, so if your dog suddenly starts to shudder and shake, it might be a good idea to think: "Maybe he ate the end of a joint off the pavement," before, as I did, "Maybe he ate a kuru-afflicted brain from Papua New Guinea."

And don't wait to figure it out on your own. According to Dr. Fox, it's a good idea for any animal with Sherlock's symptoms to get to the nearest veterinary emergency room.

Here's another good idea: Maybe people could use a little more care when smoking pot outdoors. Or let me put that a different way: Maybe people could please pick up their damn roaches off the sidewalk and throw them in the nearest garbage can instead of leaving them underfoot.

Hey, we're living in a divided nation, and there's so much we can't agree about. But dogs? Everybody loves dogs. Republicans love dogs. Democrats love dogs. Even Kyrsten Sinema loves dogs. So let's not, you know, poison them.

Alas, poor Sherlock. He has recovered fully, but a new era has begun in which he is obliged to wear a mesh muzzle every time he goes out for a walk. He doesn't like that one bit, but a little humiliation (for him) and inconvenience (for me) are far preferable to another night in the I.C.U. (for him), not to mention the bill (for me).





May 7, 2022

Dear Members of Sacramento City Council Law and Legislation Committee,

On behalf of Getting it Right from the Start, a program of the Public Health Institute, a 501c3 that has worked to promote public health and health equity in California for over 55 years, and which has long been active in Sacramento City and County, I write to express our opposition to the permitting of cannabis consumption lounges, or temporary events in the City of Sacramento. We also write to oppose the changes that will allow further corporitization of the cannabis industry.

For decades, public health activists fought to protect people from the health risks associated with smoking and with second-hand smoke and to promote clean indoor air. We oppose the permitting of cannabis consumption lounges as such an action by the City Council would undermine this progress and would increase health risks for the infants of employees exposed while pregnant, and may increase heart attacks, heart disease, stroke, respiratory problems and cancer for employees and customers. Employees would be at particular risk as they would breathe in second-hand smoke throughout their shifts.

California established many years ago, that employees have a right to a safe, smoke-free work environment, leading the nation in the protection of smoke-free air. This lead to one of the greatest advances in public health of the century, and contributed to large scale declines in heart disease. An entire generation of California youth has grown up in a smoke-free environment. That historic progress in smoke-free air, and in keeping restaurants and bars smoke-free is now threatened by proposals such as that under consideration, especially when combined with proposed state regulatory changes that would allow sale of food and beverages in on-site consumption lounges.

Evidence suggests that cannabis smoke and/or vapor may be even more harmful than tobacco smoke. Researchers have compared the pollution levels (as fine particulate matter in the air) when a user smokes a Marlboro tobacco cigarette to the pollution levels that occur when the user smokes cannabis in a joint, bong, and pipe, as well as when they vaporize cannabis.<sup>i</sup> They found that all the methods of cannabis consumption produced as much or more pollution than the tobacco cigarette; cannabis joints were the most polluting, producing 3.5 times more particulate matter than the tobacco cigarette. In another study that compared cannabis and tobacco smoke, cannabis smoke was found to have 20 times higher levels of ammonia and 3-5 times more hydrogen cyanide, some aromatic amines, nitrogen dioxide and nitric oxide.<sup>ii</sup> Secondhand cannabis smoke and vapor pollutes the air as much or more than tobacco. UCSF researchers have also found that cannabis smoke affected cardiac endothelial cells even more dramatically than tobacco smoke – they concluded: "One minute of exposure to marijuana SHS

establish safer legal access without increasing consumption, social normalization, or exposing workers to harm. More is not better, and tax revenues will be offset by harms in mental health, youth development, and education that come at great human and financial cost to families, employers and government.

Thank you for your consideration of our views on this important matter.

Sincerely,



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## Secondhand Marijuana Smoke

"Smoke is smoke. Both tobacco and marijuana smoke impair blood vessel function similarly. People should avoid both, and governments who are protecting people against secondhand smoke exposure should include marijuana in those rules."

*-Matthew Springer, cardiovascular researcher and Associate Professor of Medicine, University of California, San Francisco*

### Facts about secondhand marijuana smoke:

- Marijuana smoke is created by burning components of plants in the genus Cannabis.
- Secondhand marijuana smoke is a complex chemical mixture of smoke emitted from combusted marijuana and the smoke that is exhaled by the user.
- Secondhand marijuana smoke contains fine particulate matter that can be breathed deeply into the lungs.
- Secondhand marijuana smoke contains many of the same cancer-causing substances and toxic chemicals as secondhand tobacco smoke. Some of the known carcinogens or toxins present in marijuana smoke include: acetaldehyde, ammonia, arsenic, benzene, cadmium, chromium, formaldehyde, hydrogen cyanide, isoprene, lead, mercury, nickel, and quinoline.<sup>i</sup>
- Marijuana smoke contains tetrahydrocannabinol (THC), the active chemical in cannabis.

### Health risks of exposure to secondhand marijuana smoke:

Decades ago, people believed secondhand tobacco smoke presented no health risks to nonsmokers. Scientific research since that time changed this perception and led to smoke-free environments. Likewise, scientific research is demonstrating that breathing secondhand marijuana smoke indoors is dangerous to health and therefore should not be allowed in indoor spaces.

Peer-reviewed and published studies do indicate that exposure to secondhand marijuana smoke may have health and safety risks for the general public, especially due to its similar composition to secondhand tobacco smoke.

- Secondhand smoke from combusted marijuana contains fine particulate matter that can be breathed deeply into the lungs,<sup>ii</sup> which can cause lung irritation, asthma attacks, and makes respiratory infections more likely. Exposure to fine particulate matter can exacerbate health problems especially for people with respiratory conditions like asthma, bronchitis, or COPD.<sup>iii</sup>
- Particulate levels from secondhand marijuana smoke are even higher than particulate levels from secondhand tobacco smoke. A study comparing indoor particulate matter 2.5 (PM2.5) levels from secondhand marijuana smoke and secondhand tobacco smoke concluded that "the average PM2.5 emission rate of the pre-rolled marijuana joints was found to be 3.5 times the average emission rate of Marlboro tobacco cigarettes, the most popular US cigarette brand." **Smoking a marijuana joint indoors can produce extremely high indoor PM2.5 concentrations, thereby exposing the public and workers to dangerous secondhand marijuana smoke emissions.**<sup>iv</sup>

- Being near people who are using inhaled cannabis is hazardous to human health. In a dispensary that allowed marijuana/cannabis smoking, research scientists discovered that the average PM2.5 emissions was 840 ug/m3 over 9 visits, which exposed patrons and workers to air pollutant concentrations that are beyond hazardous levels.<sup>v</sup>
- On-site consumption of cannabis using electric vaporizers, vape pens, and dab rigs produces a chemical aerosol that pollutes indoor air to unhealthy levels. This diminished air quality was observed when marijuana was not being combusted on-site. Researchers measured high levels of PM2.5 inside a marijuana retailer that allowed vaporizing, dabbing, and vaping marijuana - but did not allow smoking of marijuana or tobacco.<sup>vi</sup>
- Researchers at the University of California at Berkeley studying fine particulate matter exposure found that cannabis bong smoking in the home generated **4 times greater PM2.5 concentrations** than cigarette or tobacco hookah (waterpipe) smoking.<sup>vii</sup>
- In the first "whole-house" study of its kind, researchers measured both tobacco and marijuana secondhand smoke and found that PM2.5 concentrations from marijuana secondhand smoke were 4.4 times higher than emissions from secondhand tobacco smoke. Secondhand marijuana levels were higher than tobacco levels in every room of the house.<sup>viii</sup>
- Significant amounts of mercury, cadmium, nickel, lead, hydrogen cyanide, and chromium, as well as 3 times the amount of ammonia, are found in mainstream marijuana smoke than is in tobacco smoke.<sup>ix</sup>
- In 2009, the California Office of Environmental Health Hazard Assessment added marijuana smoke to its Proposition 65 list of carcinogens and reproductive toxins, also known as the Safe Drinking Water and Toxic Enforcement Act of 1986. It reported that **at least 33 individual constituents present in both marijuana smoke and tobacco smoke are Proposition 65 carcinogens.**<sup>x, xi</sup>
- Secondhand smoke from marijuana has many of the same chemicals as smoke from tobacco, including those linked to lung cancer.<sup>xii</sup>
- Secondhand marijuana exposure impairs blood vessel function. Published studies on rats show that thirty minutes of exposure to secondhand marijuana smoke at levels comparable to those found in restaurants that allow cigarette smoking led to substantial impairment of blood vessel function. Marijuana smoke exposure had a greater and longer-lasting effect on blood vessel function than exposure to secondhand tobacco smoke.<sup>xiii</sup>
- One minute of exposure to marijuana SHS substantially impairs endothelial function in rats for at least 90 minutes, considerably longer than comparable impairment by tobacco SHS. The findings in rats suggest that SHS can exert similar adverse cardiovascular effects regardless of whether it is from tobacco or marijuana.<sup>xiv</sup>
- Secondhand marijuana smoke and secondhand tobacco smoke is similar in many ways. More research is needed, but the current body of science shows that both tobacco and marijuana smoke have similar chemical composition and suggests that they may have harmful cardiovascular health effects, such as atherosclerosis (partially blocked arteries), heart attack, and stroke.<sup>xv</sup>
- Particle concentrations from dabbing and vaporizing cannabis can create levels of indoor air pollution similar as those seen in extreme air pollution events like wildfires and severe industrial pollution. Exposure at these concentrations can cause cardiovascular and respiratory disease.<sup>xvi</sup>





- People who are exposed to secondhand marijuana smoke can have detectable levels of THC (tetrahydrocannabinol) in their blood and urine.<sup>xvii</sup>
- Marijuana also can be contaminated with mold, insecticides or other chemicals that may be released in secondhand smoke.<sup>xviii</sup>

### Including Marijuana Smoking in Smokefree Public Place and Workplace Laws:

- Everyone has the right to breathe smokefree air. Smokefree policies are designed to protect the public and all workers from exposure to the health hazards caused by exposure to secondhand tobacco smoke. The same should be true for secondhand marijuana smoke.
- The percent of U.S. adults who use marijuana more than doubled from 4.1% to 9.5% between 2001-2002 and 2012-2013,<sup>xix</sup> which may also indicate an increase in exposure to secondhand marijuana smoke.
- The American Society for Heating, Refrigeration, and Air Conditioning Engineering (ASHRAE) is the organization that develops engineering standards for building ventilation systems. ASHRAE now bases its ventilation standard for acceptable indoor air quality on an environment that is completely free from secondhand tobacco smoke, secondhand marijuana smoke, and emissions from electronic smoking devices.<sup>xx</sup>
- To protect public health, improve consistency, and aid enforcement, smokefree laws for public places and workplaces should include tobacco as well as marijuana, whether it is smoked or aerosolized. Allowing marijuana smoking in places where smoking is now prohibited could undermine laws that protect the public from exposure to secondhand smoke. The Tobacco Control Legal Consortium issued an informative brief on Lessons from Tobacco Control for Marijuana Regulation.<sup>xxi</sup>
- Smokefree policies provide incentives to quit smoking, help denormalize smoking behavior, and are particularly effective among youth and young adults who are vulnerable to visual cues and social norms of smoking. It is likely that smokefree policies for marijuana will have a similar effect.
- As of October 2022, 876 localities and 38 states/territories/commonwealths restrict marijuana use in some or all smokefree spaces. Of these, 468 localities and 23 states/territories/commonwealths prohibit smoking and vaping of recreational and medical marijuana in one or more of the following venues: non-hospitality workplaces, restaurants, bars, and/or gambling facilities.

### Maintaining the Smokefree Gain from Industry Interference:

- The tobacco industry is setting its sights on the commercialization of marijuana and pushing for on-site consumption to once again normalize smoking and vaping in public, undermining decades of smokefree protections. Creating transparency about the relationships between the cannabis industry, related industries, and policymakers is essential to ensure appropriate regulation of cannabis products.

- An observational study found that nearly **half of lobbyists did not disclose that they represented the cannabis industry or interests**, which makes it difficult for people to track the industry's activity and spending. As the study notes, **"The cannabis industry has an interest in creating a regulatory environment which maximizes profits at the cost of public health, similar to the tobacco, alcohol, and food industries."** It is imperative for public health advocates to educate policymakers and the public about the cannabis industry's well-funded lobbying activities that aim to promote their profits over the public's wellbeing.

**In the interest of public health, the use of combustible or aerosolized marijuana should be prohibited wherever tobacco smoking is prohibited.**

### **ANR Foundation's Position on Exposure to Secondhand Marijuana Smoke:**

**Marijuana smoke is a form of indoor air pollution.** Therefore, ANR, our lobbying organization, includes marijuana within the definition of smoking, and all of our model laws and policies include a prohibition on smoking marijuana wherever smoking of tobacco products is not allowed. Our organization does not have a position on whether marijuana should be legalized; we are committed to smokefree protections from secondhand smoke from tobacco products, marijuana and aerosol from electronic smoking devices.

**Nobody should have to breathe secondhand marijuana smoke at work, in public, or where they live.** We want healthy, smokefree air for workers and the public, products like marijuana and electronic smoking devices (which can be used to "vape" a wide range of substances, including marijuana and hash oil) must not be used in smokefree environments where others are forced to breathe the secondhand emissions.

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**For more information, visit <https://nonsmokersrights.org/marijuana-smoke> or call us at 510-841-3032.**

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# How Dangerous is Driving Under the Influence of Marijuana?

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 [trafficschoolonline.com/blog/driving-marijuana](https://trafficschoolonline.com/blog/driving-marijuana)

January 8, 2019



## Fix your ticket now.

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In the United States, and on this blog, we spend a lot of time talking about the dangers of drunk driving, particularly around holidays like the Fourth of July and New Year's, and with good reason - about one third of total traffic fatalities involve alcohol impairment.

But as states have begun to legalize marijuana for medical or even recreational purposes in the last few years, driving while under the influence of marijuana is becoming an increasingly important topic.

It's a common myth that driving under the influence of marijuana isn't all that dangerous. But how does marijuana really affect the ability to drive safely?

## Marijuana Use Impairs Driving Performance

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While the National Highway Traffic Safety Administration reports that marijuana-impaired drivers are sometimes able to "pull themselves together" to concentrate briefly on simple tasks, or may try to make up for their impairment by driving more slowly or cautiously, driving high is by no means safe.

According to the NHTSA, marijuana has been shown to impair driving performance significantly for 1 to 2 hours following use, and residual effects have been reported up to 24 hours after use. These impairments are moderate in low doses, and severe with high doses, chronic use, and in combination with alcohol.

Reported impairments include:

- Inability to concentrate and maintain attention
- Difficulty performing divided-attention tasks
- Reduced hand-eye coordination
- Distortion of time and distance
- Increased evaluation, decision, and reaction times
- Sleepiness

Even a moderate impairment can prevent drivers from responding quickly to unexpected hazards and maintaining the high level of attention needed for safe driving.

The National Organization for the Reform of Marijuana Laws (NORML), which promotes the legalization of the responsible use of marijuana, recognizes this danger in its Principles of Responsible Use, arguing that:

“The responsible cannabis consumer does not operate a motor vehicle or other dangerous machinery while impaired by cannabis, nor (like other responsible citizens) while impaired by any other substance or condition, including some medicines and fatigue.”

## **Limited Data Available on Marijuana-Impaired Crashes and DUIs**

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We already have a wealth of information on how alcohol, drowsiness and even distraction affect our risk of being in a crash, so it may seem surprising that researchers do not yet have a clear picture of how many crashes or DUI convictions involve marijuana.

Law enforcement, court systems, and researchers have significant challenges to overcome in obtaining and interpreting this information:

- Standard field sobriety tests, which are 90% effective in identifying drunk drivers, only correctly identify 30% to 50% of marijuana-impaired drivers, according to the New York Times.
- Evaluations by specially trained Drug Recognition Experts are accurate, but must be completed after an arrest, not at the scene of a traffic stop.
- Chemical tests of blood and urine are available, but do not reliably predict how impaired a driver actually is. Drivers may test positive for marijuana days or even weeks after use.
- Many law enforcement and court record-keeping systems do not include whether an impaired driver was affected by alcohol, drugs, or both. The NHTSA has strongly recommended that these systems be updated to provide for more accurate monitoring of DUI cases.

As detection methods and reporting policies become more accurate, we can expect our understanding of this issue to become much clearer.



Los Angeles is already testing out a saliva swab drug test that can be used at the time of a traffic stop. Officials hope that having a quick and effective method to detect the presence of drugs will deter people from getting behind the wheel while under the influence of any substance.

## Looking for More Information?

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While the data is limited, researchers are still studying the issue! Take a look at the findings at the links below.

- A study by Columbia University released this past January found that the proportion of fatally injured drivers who tested positive for marijuana tripled from 1999 to 2010, from 4.2% to 12.2%. This may indicate that marijuana-impaired driving is playing an increased role in fatal crashes. The study is based on data from six states where toxicological testing is routinely performed on drivers involved in fatal car crashes.
- In Washington, 25% more drivers tested positive for marijuana in 2013, the first full year after the state legalized the drug, than in 2012. However, there was no overall rise in DUI arrests, and no significant increase in crashes.
- In Colorado, an increased proportion of drivers involved in fatal crashes tested positive for marijuana after 2009, when medical marijuana was legalized, than in the period before legalization. The study did not reveal whether the drivers were found to be impaired at the time of the crash, or whether they were at fault in the crash, so the results may only reflect an increase in use.

Curious about laws on marijuana and driving in your state? Check out NORML's state-by-state list of drugged driving laws.

# INDOOR AIR POLLUTION FROM MARIJUANA EMISSIONS AS BAD AS THE WORST WILDFIRES

August 30th, 2018 | Categories: Marijuana, Secondhand Smoke | Tags: Air Pollution, Wildfires

In a year that experienced the nation's worst wildfires in recent history, it is significant that the latest research on marijuana vaping and dabbing shows indoor particulate concentrations equivalent to dangerous air pollution events.

In a recent study (which will be published this fall), researchers studied marijuana particle concentrations at an event in a dispensary where vaporizing and dabbing were the primary sources of indoor air pollution. They saw Particulate Matter (PM) levels that ranged from 250 to 600 ug/m<sup>3</sup> and emissions from dabbing and other forms of vaping marijuana that were near constant for six hours. **Their take-home was that particle concentrations from dabbing and vaporizing cannabis can create levels of indoor air pollution similar to those seen in extreme air pollution events like wildfires and severe industrial pollution. Exposure at these concentrations can cause cardiovascular and respiratory disease.**

## Three ways to use this research to protect nonsmokers' rights:

1. Send this research summary to your local, county and state elected officials along with a personalized note about the need to protect nonsmokers' rights. Elected officials are often approached by marijuana industry representatives and lobbyists to roll back smokefree and aerosol-free protections, so they need to hear from those on the side of public health too.
2. In places that allow public smoking and vaping, ask the municipality (contact your local health department) to test the air quality in any place that allows vaping and determine if it poses a health risk to workers and people who must come in for deliveries or maintenance. Check also to see if the particles are entering neighboring buildings and causing a health risk.
3. Write a letter to the editor about the dangers of exposure to marijuana smoke and emissions from vaporizers and dabbing, and include a link to the study. Much of the public simply doesn't understand that marijuana smoke can be dangerous to public health.

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## Emissions from Vaporizable Cannabis Concentrates Have Potential Health Risks

By Media Relations  
May 21, 2021

As more U.S. states and countries legalize medical and recreational marijuana, consumers are increasingly turning to new types of products that avoid toxic smoke inhalation. Researchers at Berkeley Lab who previously identified potentially harmful emissions from electronic cigarettes are now identifying the potential health risks of vaping cannabis.



Berkeley Lab researchers investigated the emissions from vaporizable cannabis concentrates, which come in the form of concentrated liquids or waxy solids often referred to as “extracts” or “hash oils.” (Credit: iStock)

□



Berkeley Lab researchers investigated the emissions from vaporizable cannabis concentrates, which come in the form of concentrated liquids or waxy solids often referred to as “extracts” or “hash oils.” (Credit: iStock)

*By Kiran Julin*

As more U.S. states and countries legalize medical and recreational marijuana, consumers are increasingly turning to new types of products that avoid toxic smoke inhalation. **Researchers at Berkeley Lab** who **previously** identified potentially harmful emissions from electronic cigarettes are now identifying the potential health risks of vaping cannabis.

When a person vapes marijuana, they are inhaling vaporizable cannabis concentrate (VCC), which is a concentrated liquid or a waxy solid form of cannabis also commonly referred to as “extracts” or “hash oils.” The concentrated liquid is usually heated into an aerosol by a battery-operated electronic device, while waxy concentrates can be aerosolized by direct application onto a heated surface (known as “dabbing”).

In a new Berkeley Lab **study** recently published in the journal *Environmental Science & Technology*, researchers examined emissions associated with heating only the non-cannabinoid constituents of VCC, which are extracted from the cannabis plant alongside the psychoactive constituents but do not cause drug-like effects on the body. These non-cannabinoid compounds are a major part of VCC formulations and include terpenoids, flavonoids, and lignins - all commonly found in plants and potentially harmful when inhaled.

The research team, led by Berkeley Lab scientist Hugo Destailats, heated and aerosolized mixtures of those compounds to simulate cannabis vaping and dabbing. They observed the formation of a large number of ultrafine particles that were released into a room-sized chamber and remained airborne for at least three hours.

“Our results suggest that high molecular weight compounds such as lignins, flavonoids, and triterpenes enhance the formation and accumulation of ultrafine particles in the air, which can then serve as carriers of substances that normally are not found in the air - otherwise known as nonvolatile and semivolatile species,” said Berkeley Lab scientist and co-author Xiaochen Tang. “These substances can then be breathed into a person’s lungs and found in the indoor environment.”

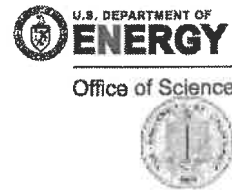
The research team also quantified 11 degradation byproducts as a result of heating the mixtures, including acrolein and methacrolein, which are highly irritating to eyes and the respiratory system. According to the study, these compounds are predicted to reach levels that may exceed reference exposure levels recommended by California.

“The bottom line is that emissions from heated cannabis concentrates are not innocuous,” said Destailats. “Vaping and dabbing can be a source of harmful chemical exposure, and more research is needed to determine the full extent of the risk.”



The study was funded by the University of California Tobacco Related Diseases Research Program (UC-TRDRP).

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# Measuring Aerosol Particle Emissions from Cannabis Vaporization and Dabbing

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## SUMMARY

Cannabis smoke contains many of the same carcinogens and chemicals found in tobacco smoke (Moir, Rickert et al. 2008, Wei, Alwis et al. 2016). Exposure to secondhand cannabis smoke can impair endothelial function, which increases the risk of cardiovascular disease (Wang, Derakhshandeh et al. 2016). However, US data show that the perceived health risks of marijuana use are, in fact, declining among adults (Compton, Han et al. 2016). We measured the concentrations of airborne fine particles (PM<sub>2.5</sub>) and cannabinoids at an indoor cannabis event where dabbing and vaporizing were the only cannabis emissions. We found average particle concentrations of 200-600 micrograms per m<sup>3</sup> and peak concentrations over 1,600 micrograms per m<sup>3</sup>. Particle concentrations this high are seen in extreme air pollution events like wildfires (Landis, Edgerton et al. 2018, Li, Han et al. 2018) and severe industrial pollution (Nagar, Singh et al. 2017, Li, Han et al. 2018). Exposure at these concentrations can cause cardiovascular and respiratory disease (Zheng, Ding et al. 2015, Li, Fan et al. 2016). We show that dabbing and vaporizing cannabis can create levels of indoor air pollution that are hazardous to human health, in the absence of actual combustion.

## KEYWORDS

Cannabis, Vaping, Dabbing, Environmental Cannabis Pollution, Particulate

## INTRODUCTION

Study of the health and environmental effects of cannabis is complicated by diverse preparations and routes of administration. Cannabis can be purchased as dried flowers, mechanically separated trichomes (hash), concentrates, tinctures, and edible and topical preparations. The dried flowers can be smoked using a cigarette (Ramo, Liu et al. 2012), a blunt, or a pipe (Golub, Johnson et al. 2006). Cannabis, hash and cannabis concentrates can also be consumed by “vaporizing” (Gieringer 2001, Gieringer, St. Laurent et al. 2004, Malouff, Rooke et al. 2014, Pepper and Brewer 2014, Walker 2014). To vaporize whole cannabis, dried flowers from female plants are ground finely and heated to between 180° and 300° C, and the resulting aerosol is inhaled. Vaporizers are being popularized among medicinal cannabis users as a way to reduce exposure to toxins (Malouff, Rooke et al. 2014), however, there is little known about the chemical composition of vaporizer aerosols. Cannabis concentrates are made by extracting cannabis plant material with organic solvents or liquid carbon dioxide. Pure cannabis concentrates can be “dabbed”. Dabbing uses a surface heated to 300-750° C to flash-vaporize concentrates. At the higher temperatures, combustion can occur.

Because cannabis research has been strictly limited in the U.S., academic and public health researchers have little experience studying it. To meet this research gap, we have conducted field experiments at public events in the San Francisco Bay Area where people use cannabis. We present aerosol particle data from a single experiment conducted at a farmers’ market sales event conducted on December 16<sup>th</sup>, 2017. The event took place in two rooms in a retail

space. In room one, vendors were providing samples of cannabis concentrates using six electrically-powered dabbing instruments and one vendor was providing samples of vape pens that contained cannabis. In room two, people were providing samples of cannabis flowers using two electrically-powered vaporizers. The dabbing equipment and the vaporizers were provided by the retailer and all vendors used the same type of equipment in each category.

## **METHODS**

We measured PM<sub>2.5</sub> concentrations in real time with three laser photometers (two model AM510, one model 8532 (Dusttrak), TSI, Shoreview, MN), fitted with 2.5 μm impactors to exclude larger particles. For gravimetric aerosol particle measurements, we used 5 air pumps (GilAir-3, Sensidyne L.P., St. Petersburg, FL) were fitted with filters (Pallflex, EMFAB, Pall Corporation, Cortland, NY). The air pumps were calibrated a flow rate of 2.0 LPM for the Gillian pumps and photometers were calibrated to 1.7 LPM, with a soap bubble spirometer (Gilibrator 1, Sensidyne L.P, St. Petersburg, FL). The laser photometer data reported have been adjusted using a calibration factor of 0.30 (Jiang, Acevedo-Bolton et al. 2011).

## **RESULTS**

Unlike a burning cigarette, dabbing equipment and vaporizers do not emit aerosol constantly. Emissions are episodic and depend on the device design and the intensity of use. A dabbing rig consists of a heated surface, and a trap or cover that captures the aerosol so it can be inhaled. Dabbing-associated aerosol emissions occurred in three phases:

1. When the concentrates were applied to the heated surface, before the aerosol trap was put over the surface
2. When the customer exhaled
3. When the trap was removed and the remaining concentrate was “burned off.”

The Volcano vaporizer used a fan below the heating plate to blow cannabis aerosol into a plastic bag that was then removed from the vaporizer and held or given to a customer to inhale. Several bags would be filled from a single load of cannabis and then held for use by customers. Vaporizer-associated aerosol emissions occurred in four phases:

1. When the bag was removed from the vaporizer
2. When the customer exhaled
3. When the unused aerosol was pressed out of the bag so it could be refilled for a new customer
4. When the spent cannabis flowers were removed from the vaporizer.

Because the aerosol emissions were not constant, we found we had to increase the observation time for a given area from 1 to 5 minutes to properly count emission activities. We were not able to observe correlations between the emission phases described above and the continuous particle concentrations observed because there were multiple sources in both rooms.

We sampled for ~6 hours. The battery of one pump died at 4 hours. The mean particle concentrations measured gravimetrically at four different locations in room one (dabbing) sampled over the same six hour time span were 445, 578, 582 and 654 μg/m<sup>3</sup>. The average laser photometer measurements collected at two of the same locations in room one, during the same time period, were 297 and 242 μg/m<sup>3</sup>. The mean particle concentration measured gravimetrically at one location in room two (vaping) was 354 μg/m<sup>3</sup> and the

corrected average laser photometric measurement collected at the same location was 939  $\mu\text{g}/\text{m}^3$ .

We do not have chemical analyses of these aerosols to report at this time. However, it was possible to distinguish the aerosols in the two rooms by smell. The aerosol in the dabbing room smelled acrid and more like smoke. The aerosol in the vaporizing room smelled more like unheated cannabis.



## DISCUSSION

Our main finding is that dabbing and the use of a Volcano vaporizer can cause high levels of  $\text{PM}_{2.5}$  in indoor air. Our gravimetric data show that average concentration in the dabbing room over 6 hours was  $564 \mu\text{g}/\text{m}^3$ . The laser photometer data from both rooms shows a pattern of high mean levels with brief peaks of 3-5 times higher concentrations. The people who worked in these rooms were exposed to aerosol particle concentrations that are recognized as hazardous by the US Environmental Protection Agency and by the World Health Organization (World Health Organization 2006, US Environmental Protection Agency 2015). Specifically, the US EPA national ambient air quality standards state that the 24-hour average outdoor  $\text{PM}_{2.5}$  concentration should not exceed  $35 \mu\text{g}/\text{m}^3$ . A 6-hour exposure to  $564 \mu\text{g}/\text{m}^3$  creates a 24-hour average of  $142 \mu\text{g}/\text{m}^3$ , even if the  $\text{PM}_{2.5}$  concentration is  $2 \mu\text{g}/\text{m}^3$  for the remaining 18 hours of the day. Using the US EPA air quality index calculator, a  $\text{PM}_{2.5}$  concentration of  $142 \mu\text{g}/\text{m}^3$  is associated with “increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increased respiratory effects in general population” (US Environmental Protection Agency 2018). While the chemical composition of dabbing aerosol emissions is not yet known and may not be as toxic as the combustion aerosols that are a primary constituent of outdoor  $\text{PM}_{2.5}$  in most areas, it is unlikely that exposure to concentrations this high are without health consequences.

Our secondary finding is that the relationship between the gravimetric and laser photometric measurements of dabbing aerosol did not follow the relationship normally seen with tobacco cigarette smoke, where the gravimetric mass is equal to the laser photometer mass  $\times \sim 0.30$  (Jiang, Acevedo-Bolton et al. 2011). For the vaporization aerosol, where the gravimetric value is less than the photometric value, this may be due to evaporation of volatiles from the gravimetric samples. For the dabbing aerosols, the gravimetric values are higher than the photometric values, so loss of volatiles is unlikely to be the cause of the discrepancy. It may be necessary to derive specific calibration factors for cannabis dabbing aerosol and vaporizer aerosol.

## CONCLUSIONS

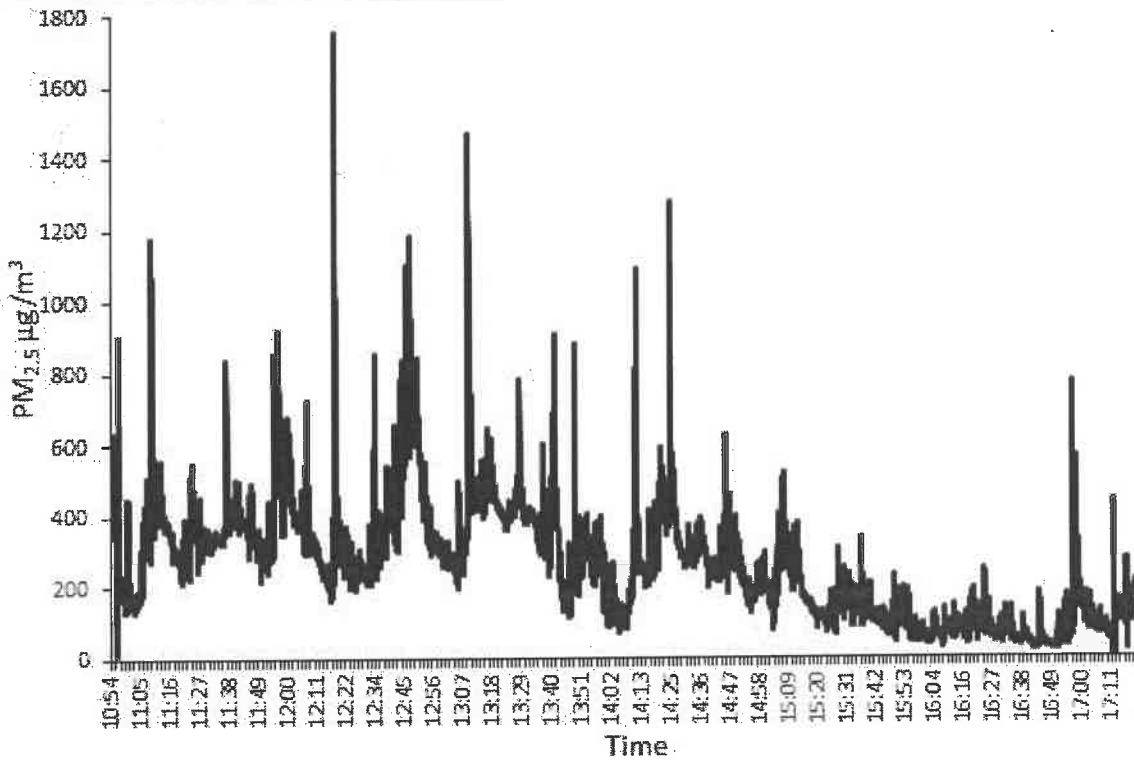
Although there is reason to believe that vaporizing and dabbing cannabis may create aerosols that contain lower concentrations of toxins than are found in cannabis smoke, these activities can still create high concentrations of  $\text{PM}_{2.5}$  indoors. Chemical analysis of these aerosols will allow an accurate assessment of the health risks of these behaviors.

## ACKNOWLEDGEMENT

This research was funded by California Tobacco-Related Disease Research Program grant 24RT-0039



**Figure 1: Aerosol Particle (PM<sub>2.5</sub>) Concentrations From Cannabis Vaporization**



Data are values from a factory-calibrated laser photometer, corrected for biomass smoke. (Dusttrak model 8532, TSI Inc, Shoreview, MN)

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# In secondhand vape, scientists smell risk

By Tate Gunnerson, American Heart Association News



(Eleonora Galli/Moment via Getty Images)

Available in an enticing array of flavors, electronic cigarettes have exploded in popularity since they hit the market about 15 years ago, particularly among middle and high school students. But research indicates that e-cigarettes – even just being around their use – may not be as "safe" as some people believe.

While the dangers of breathing in secondhand cigarette smoke are well-understood, the science is still unfolding on how inhaling secondhand vapor, or aerosol, affects the body. And people may be underestimating the health risk, said Dr. Talat Islam, an assistant professor of research population and public health sciences at the University of Southern California in Los Angeles.



Amid an 'epidemic' of school vaping, a search for solutions



Millions who have never smoked cigarettes are using other tobacco products



What You Need to Know About Vaping

Islam and his research colleagues have found that exposure to secondhand aerosols from e-cigarettes is associated with increased risk of bronchitis symptoms and shortness of breath among young adults, especially among those who don't smoke or vape themselves, the team reported last year in the journal Thorax.

"Aerosols from vaping contain heavy metals and ultrafine particles," Islam said. "If somebody else is vaping in the same area, you're breathing it – those particles are entering your lungs, where they can do damage."

In addition to nicotine, the aerosols include heavy metals such as lead, nickel and zinc, cancer-causing substances such as benzene, and diacetyl, which has been linked with a condition nicknamed "popcorn lung" in people who vape.

A 2021 study in New York, published in the journal Tobacco Control, found the use of e-cigarettes increased the number of fine particles in the surrounding room. Exposure to fine particles, or microscopic particles capable of reaching deep into the lungs, can worsen heart and lung disease, and even lead to premature death.

E-cigarettes were the most commonly used tobacco product among U.S. middle and high school students in 2021, government research shows. And while about 1 in 4 students between 2015 and 2017 were exposed to secondhand e-cigarette aerosols, that figure grew to 1 in 3 students in 2018, according to a 2019 study in JAMA Network Open.

"There's a perception as a whole that vaping is not as harmful as smoking," Islam said. "I think that's why we see such high levels of secondhand exposure."

By the time the health impacts are fully understood, it may be too late, said Dr. Ellen Boakye, a postdoctoral research fellow at the Johns Hopkins Ciccarone Center for the Prevention of Cardiovascular Disease in Baltimore.

"When people started smoking, the health effects were not known until years later, and that's the same thing we're seeing with e-cigarettes," said Boakye, who is also a fellow with the American Heart Association's Tobacco Center for Regulatory Science.

"There is evidence to suggest that e-cigarette use is associated with respiratory conditions and cardiovascular diseases," she added. "As more evidence becomes available, we may see that this association is causal, both for e-cigarette use and for exposure to secondhand vapor."

Boakye said people should minimize their exposure to vaping, ideally by leaving the area. And she urged people who vape to quit, noting that more funding is needed for vaping cessation programs.

"Some of the work we are currently doing shows that a lot of (young people) are making attempts to quit, and there isn't a lot of support for them," she said, noting most nicotine replacement products are intended

for adults. "I think this is an area where a lot of focus should be placed." For help quitting, call 800-QUITNOW (784-8669), text "QUIT" to 47848 or visit [smokefree.gov](https://smokefree.gov).

Whether inhaling traffic exhaust, cigarette smoke or e-cigarette aerosols, experts say the message is the same. "We want to breathe in that clean air," Islam said. "Anytime you add things there, we know that has an effect."

*If you have questions or comments about this American Heart Association News story, please email [editor@heart.org](mailto:editor@heart.org).*

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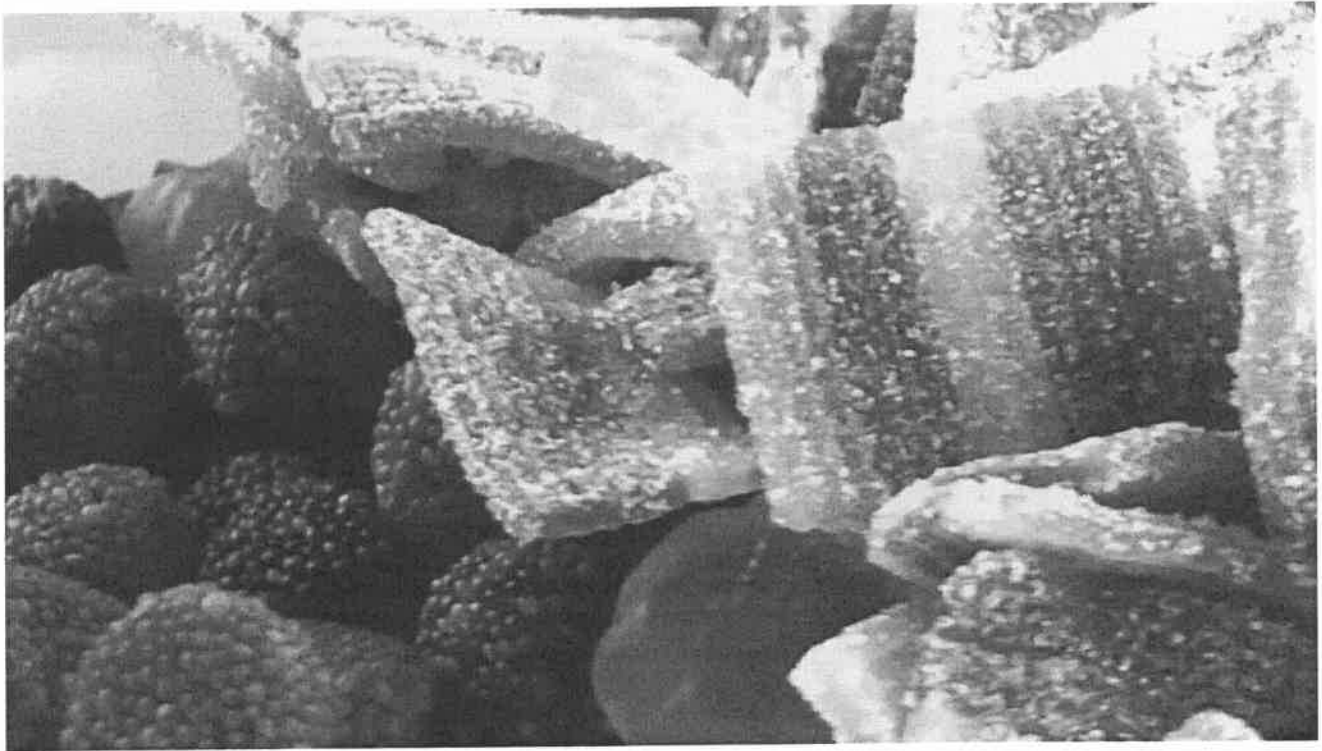
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## Virginia mother charged with murder after 4-year-old son dies from eating THC gummies

[nbcnews.com/news/crime-courts/virginia-mother-charged-murder-4-year-old-son-dies-eating-thc-gummies-rcna53449](https://www.nbcnews.com/news/crime-courts/virginia-mother-charged-murder-4-year-old-son-dies-eating-thc-gummies-rcna53449)

Julianne McShane



A Virginia mother has been charged with murder and felony child neglect after her 4-year-old son died from eating THC gummies, police said.

Dorothy Annette Clements, 30, of Spotsylvania was arrested Wednesday, two days after a grand jury indicted her on the charges related to the May death of her son.

Authorities said Clements failed to get her son help quickly enough after he was found unresponsive on May 6 at a Fredericksburg home they were visiting, about 11 miles away from Spotsylvania.

The boy died two days later, according to police, who said detectives believe the boy ingested a "large amount" of the gummies.

NBC Washington reported that an autopsy found THC — the ingredient in marijuana that gets people high — was the cause of death.

A doctor told detectives that the boy could have been saved if he received medical attention sooner, according to authorities.



Clements told police she called poison control after the boy ate half of a CBD gummy and that officials told her he would be fine, NBC Washington reported.

But police say Clements' claims did not match evidence found at the home, where a detective reported finding an empty THC gummy jar in the house where he was found, according to NBC Washington.

Clements faces up to 40 years in prison for the murder charge.

Her arraignment is set for Nov. 1, online records show.

Poison Control says that "serious and sometimes life-threatening side effects can occur in children who consume cannabis edibles," and recommends parents keep cannabis products away from kids.

Side effects for kids who consume THC edibles can include "vomiting, dizziness, difficulty walking, a rapid heart rate, drowsiness, confusion, and breathing difficulties," along with hallucinations, low blood pressure and an abnormally slow heart rate in severe cases, according to Poison Control.

"Parents and caregivers should call poison control regardless of whether symptoms are present because signs and symptoms may not occur immediately after consumption," the organization says.

Experts say the appearance of THC gummies is part of what makes them extra risky to leave around children.

The packaging of the gummies typically isn't childproof, and given their resemblance to candy, "when children come across them, most children are going to put that in their mouth and ingest it," pediatric emergency room physician Dr. Jill McCabe, who works at Inova Loudoun Hospital in Leesburg, told NBC Washington.

If children do consume them, parents should immediately call 911 and seek emergency medical care if the child is "having difficulty breathing, not breathing well, having a seizure, difficulty walking, very lethargic, [or having] persistent vomiting," McCabe told NBC Washington.

The warnings follow a string of recent incidents in which children were hospitalized for consuming foods laced with THC.

In 2020, at least two children — an 11-year-old and a 5-year-old — were hospitalized after eating "Medicated Nerds Rope," a THC-laced candy, from a food bank in Utah.

A year earlier, the mother of a 5-year-old boy was arrested for child endangerment after her son brought gummies laced with THC to his Cleveland elementary school, causing nine children to be hospitalized.

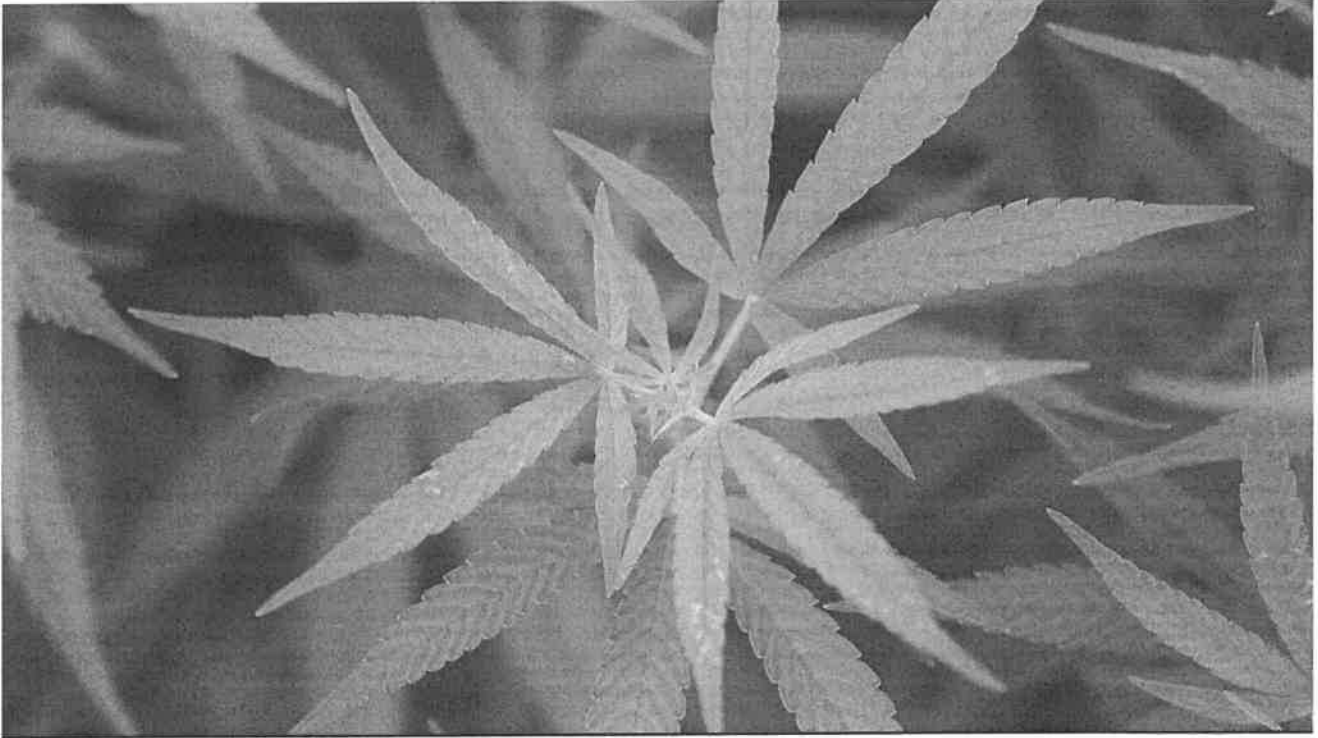
In 2018, at least 5 Florida middle school students were taken to the hospital after eating marijuana-laced gummy bears, which a 12-year-old boy allegedly handed out during gym class.

Medical experts said the 2015 death of an 11-month-old baby boy in Colorado marked "the first reported pediatric death associated with cannabis," though the baby was officially listed as having died from myocarditis, an inflammation of the heart muscle, and other experts questioned whether cannabis caused the death.

Julianne McShane

# The potential impact of Virginia's new proposed hemp restrictions

[wusa9.com/article/news/local/virginia/virginia-new-hemp-restrictions-senate-bill-903/65-c7032420-b04c-4a2a-b48d-591093cfee37](https://www.wusa9.com/article/news/local/virginia/virginia-new-hemp-restrictions-senate-bill-903/65-c7032420-b04c-4a2a-b48d-591093cfee37)



Virginia

## The impact of Virginia's new proposed hemp restrictions

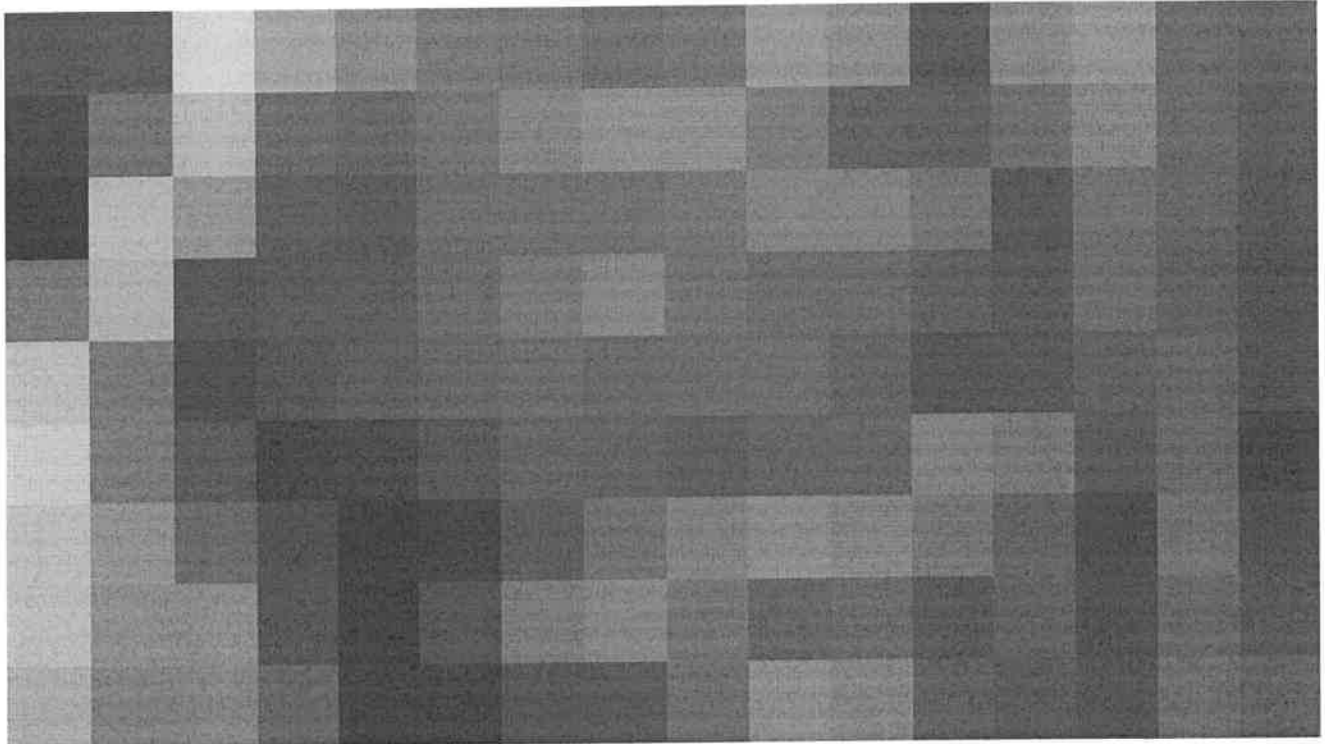
Virginia Senate Bill 903 limiting THC content of hemp products awaits Gov. Youngkin's signature.

HILLSVILLE, Va. — A 2018 federal law allowed hemp to be grown, chemically altered, and turned into products containing THC. THC is the compound that can get you high and is also used for pain relief.

Last Friday, Virginia lawmakers passed Senate Bill 903. The vote was 78-14 in the House of Delegates and 22-18 in the Senate. It limits all hemp products to only 2 milligrams of THC per package, far lower than most products carried in Virginia stores.

While holding up a bag of THC-infused hemp tea, District Hemp Botanical owner Barbara Biddle, with two stores in Virginia, said, "This is a tea right here specifically formulated to help with sleep. This is great for people that just need help with sleep sporadically. You know, they brew a tea they drink it before bedtime. It's a very easy way to administer CBD. This

has 3.96 milligrams of THC and the entire package; this will become illegal. I would get a \$10,000 fine if I sold this to anybody in Virginia from my stores. So products like these products, like this honey, some edibles, they'll all be gone. I'd say about 90% of my store would be gone because of the bill."



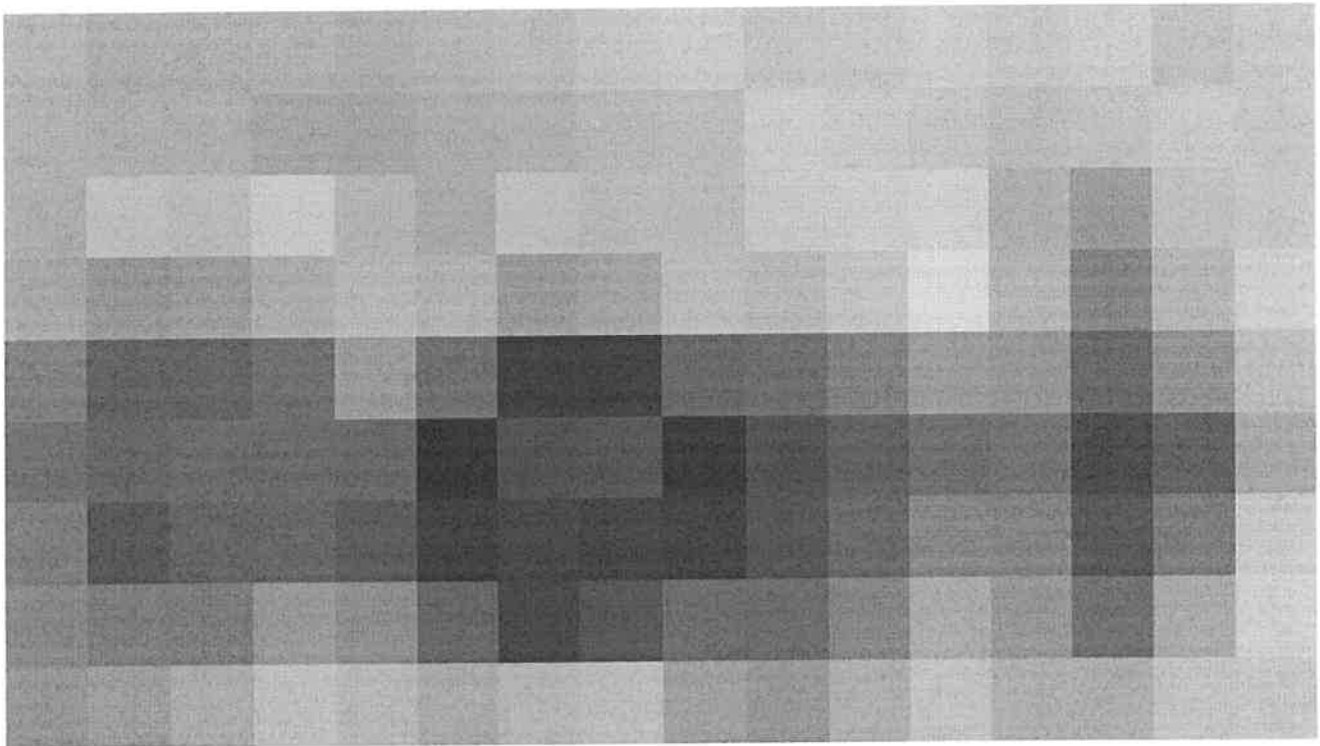
Credit: Barbara Biddle

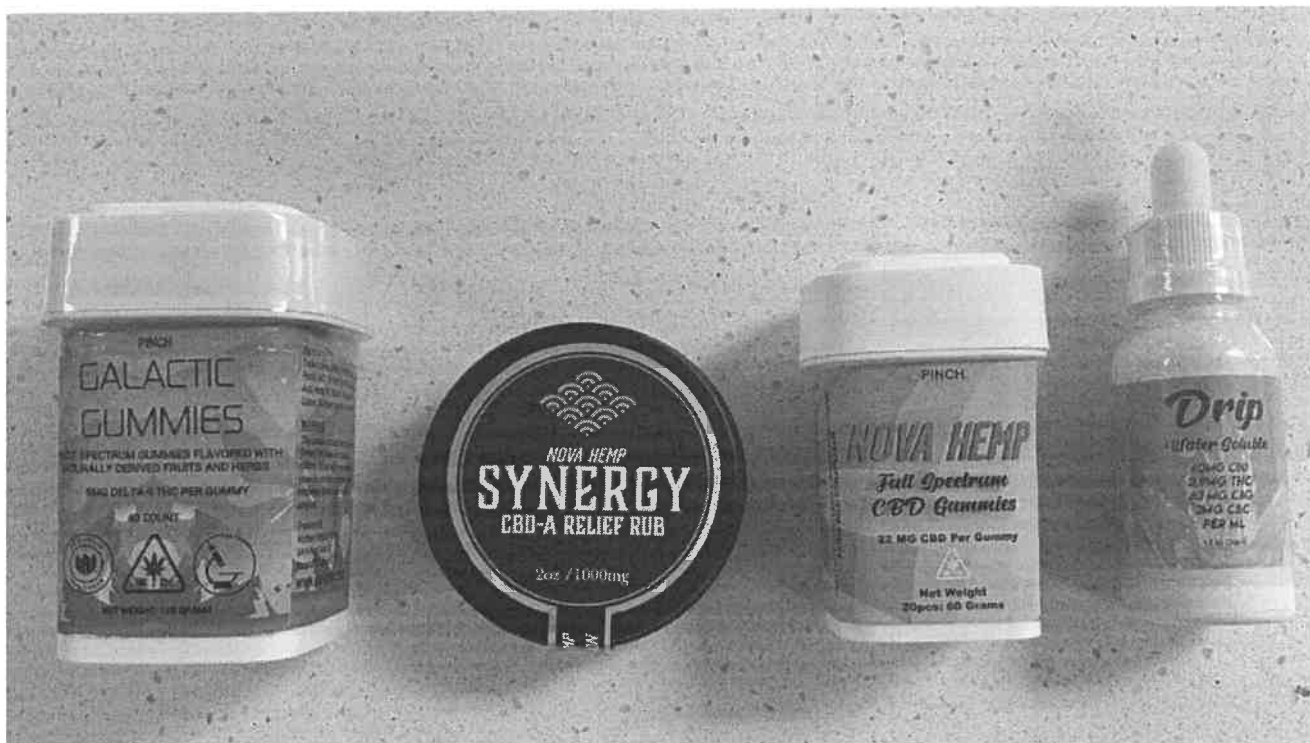
A bag of tea sold at District Hemp Botanicals stores in Virginia

Dr. Lynn Silver with the Public Health Institute supported Virginia's new bill limiting hemp:

"The loophole of 0.3% THC content allowed [in the 2018 Federal Farm Bill] was to open the barndoor wide for a whole range of products that were highly intoxicating, because 0.3% of plant is just not the same thing as 0.3% of a can of soda or of a gummy worm. And that criteria allowed large amounts of psychoactive THC to be pushed out there, as gummy worms, as "Sour Patch Kids" as all kinds of products that should not be out there exposing kids, and many of them with this very creative soup of new artificially derived cannabinoids. A lot of creative chemistry in there that we really know nothing about their safety."

Virginia's bill, if signed by the governor, would not just restrict Delta-8 THC gummies seen as potentially harmful if eaten by children, it would prevent manufacturing and sale of most existing hemp products meant for pain and anxiety relief with any THC in them.





Credit: Nova Hemp

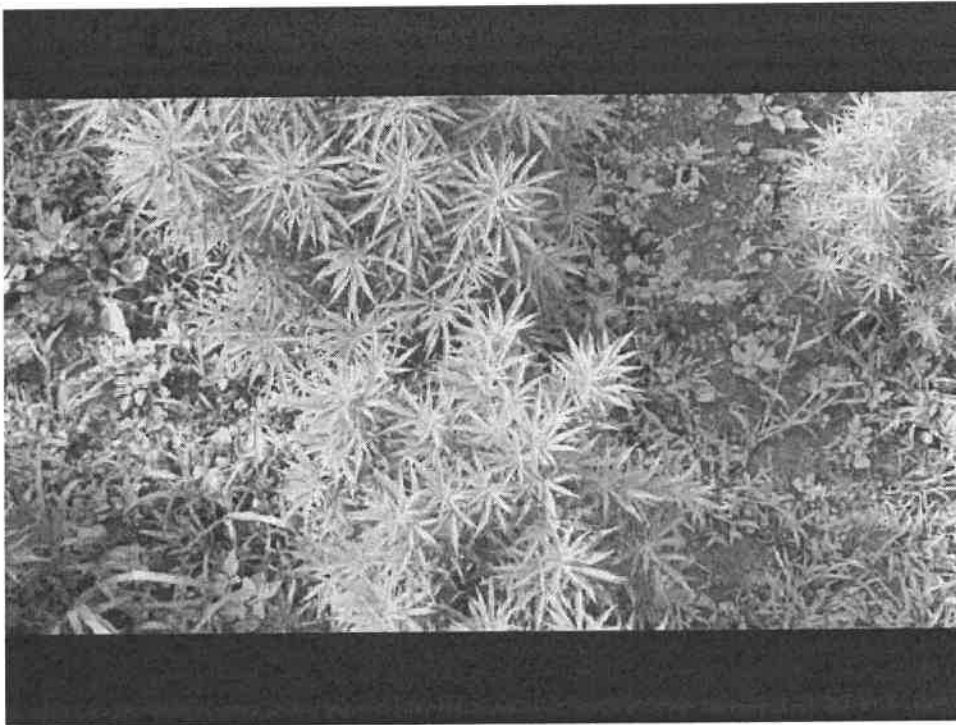
### THC-infused hemp products facing bans in Virginia

While holding up a small bottle, Northern Virginia Hemp and Agriculture owner Travis Lane explained, "this is this is a CBD water soluble tincture that we make here and it's got 60 milligrams of CBD in it. But it also has 2.9 milligrams of THC per serving in the bottle, which is Farm Bill compliant and meets all standards to the limits the [Federal] Farm Bill says but this for instance, is a product that will become illegal and removed off of our shelves. I mean, we we have a very big line of stuff here that you know will just be completely wiped out and this is just a nonintoxicating hemp product."

Virginia's attorney general helped write the hemp restriction bill. His office wrote WUSA9 their motive for doing so: "The attorney general assisted lawmakers in crafting legislation to create safeguards for the total THC content available in products. This year, we've seen a spike in accidental THC overdoses in children, due to many of the products' misleading packaging and unreliable regulation. These safeguards protect Virginia children and consumers from accidentally consuming THC, as well as holding accountable vendors that try to circumvent the law."

Silver added, "Some of these products have way more THC in them than legal cannabis edible would, you know, most states legal cannabis edibles can't be more than five or maximum 10 milligrams."

Virginia Cultivars owner Travis Wagoner said, "This is about people being able to improve their quality of life with products that are made here locally, with small farms, small businesses, you know, people within the community. Unfortunately, the products that are being highlighted and all the stories with the negative publicity are products that are being shipped in from out of state with California logos on it. It's not the Virginia Cultivars product. You know, we care about our constituents; we care about our users. There certainly are products on the shelves that are dangerous, but it's not products that are being made here in Virginia by reputable companies like ourselves. I think that it's not just me, unfortunately, it's my community and not having the right to choice. It's my employees having to seek out other employment because I can no longer offer them 40 hours a week. It's my community here locally, not having the revenue coming in from the employees, but also not having a tax revenue. You know, Hillsville was a small town, the biggest thing we have going for us here is a flea market that happens twice a year, and that's done. So with that being said, you know, if we're talking about public safety and taking care of the constituents, I think we need to take their opinions and their freedom of choice into consideration, and this is eliminating that."



Watch Video At: <https://youtu.be/JQuv-g9IsSY>

Virginia's hemp growing and processing facilities are often located in the state's rural, higher unemployment areas.

Biddle added, "I have 12 employees in Virginia, and I don't know what tell them, you know, they might lose their jobs and I have no idea."

Senate Bill 903 now goes to Gov. Youngkin. Lawmakers expect him to sign it considering it was fellow Republican, Attorney General Jason Miyares, who helped write it. It would go into effect July 1.

Maryland and D.C. currently have no additional restrictions on hemp-derived THC products and follow federal law allowing their sale and production.



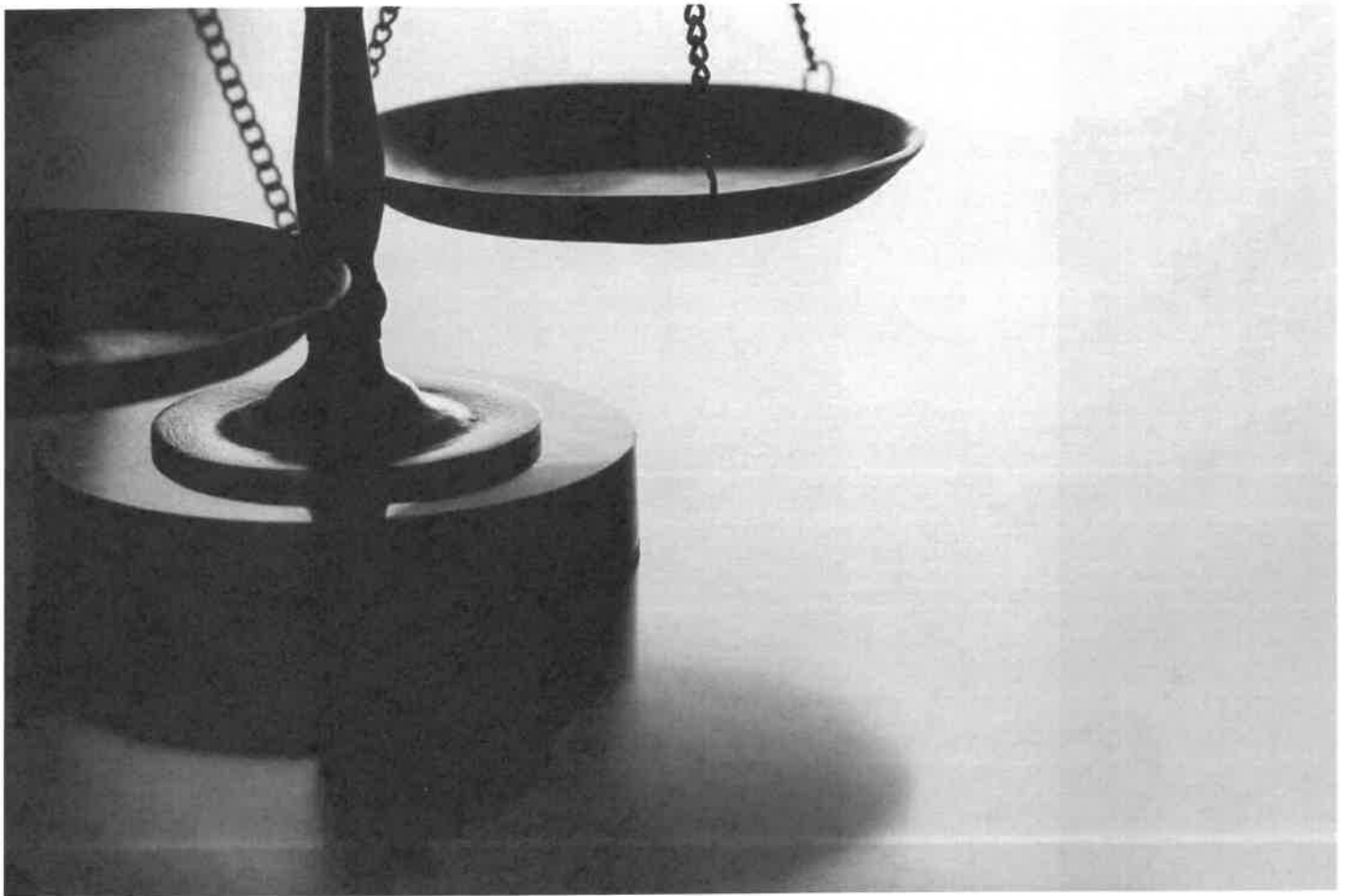


COMMENTARY JUSTICE

# Opinion: Felony murder should be removed from Maryland criminal law

By Guest Commentary

January 31, 2023



Getty Images.

**By Margaret Martin Barry**

*The writer is a member of the Montgomery County Women's Democratic Club. She is the founder and former director of the Re-Entry Clinic at American University Washington College of Law.*

Though the felony murder doctrine inherently raises constitutional concerns, its application as to children is even more indefensible. As with David, a child can be charged with first-degree murder when his or her co-defendant committed the murder. The law is in opposition to the U.S. Supreme Court's precedent regarding child offenders. Relying on the Eighth Amendment's prohibition of cruel and unusual punishment, in Roper v. Simmons, Graham v. Florida, and Miller v. Alabama, the Court determined that youth must be considered when sentencing child offenders.

The premise of these decisions is that youth are less blameworthy than adults because of where they are in the process of their brain development. Indeed, in the Graham case, Justice Kennedy stated that in the case of felony murder, children are twice removed from culpability because it is even more unlikely that they will contemplate the dangers that could accompany their actions than adults. Notably, while the Court did not decide these cases for other than those defined as juvenile offenders, the science they relied upon spoke of the diminished developmental capacity to project consequences evidenced through the age of 25.

The United States remains virtually the only western country that still recognizes a legal principle that makes it possible "that the most serious sanctions known to law might be imposed for *accidental* homicide." England abolished felony murder in 1957, and the doctrine never existed in France or Germany.

Maryland's use of felony murder, either as a tool for prosecutors to pressure people into pleas or to gain first-degree murder convictions because causation and intent are not required, is particularly insidious as applied to Black people who enter the system. Maryland has the distinction of being among the worst states when it comes to incarceration of Black people, at more than double the national average. Felony murder fuels the worst tendencies, allowing incarceration for life or life without parole despite lacking the level of culpability we think of in relation to such harsh penalties.

For criminal laws to be respected, they must be considered fair and in proportion to the crime. Felony murder fails that standard because it punishes for an act that was either not done at all or not intended by the defendant. It is "justified" by argument that those engaged in the enumerated felonies should know that death is a possibility and further that the extreme penalties will deter engagement in such felonies. The latter disregards the harsh penalties for the underlying felonies which, if considered, would deter in their own right. The former premise of foreseeing the possible consequences has not been substantiated.

With the General Assembly early in its 2023 session, there is again the opportunity to do away with this unjust provision in our laws. Felony murder should be removed from

One spring evening in Prince George's County, a friend called David saying she needed help in going after some friends who had hurt her. He declined. She then called David's friend Keith for help; he agreed and said he would meet her.

Keith called David and talked him into going with him. When they met her, she was drunk and waving a gun. They tried to talk her down, and David got her to call her mother. But she was loud and still waving the gun when she made the call, and the next thing David knew Keith shot her, almost hitting him in the act. Keith then told David to take her gun.

Scared of what Keith was demonstrably capable of doing, David took the gun and ran. David was 16 years old at the time; Keith was 18. Both boys were tried and convicted of felony murder and use of a handgun in commission of a felony. Both boys got the same sentence of life plus 20 years, the sentences to run consecutively.

To prove premeditated first-degree murder, the most extreme form of murder, the state must prove that the defendant intended to kill, was conscious of that intent, and had time to think about that intent.

Except when the state doesn't have to prove intent — at all.

Indeed, many people sit in Maryland prisons for decades or for their entire lives who never intended to kill. They serve sentences for first-degree murder because the law tells prosecutors not to worry about proving intent to kill; if the defendant was involved in one of a certain list of felonies, it doesn't matter whether the killing was planned or the defendant did or even knew of the killing at all.

Despite our very stringent penalties for the felonies that trigger felony murder, the theory goes that if a person dies during commission of, for example, a robbery, burglary or arson, *all* involved in that crime should know death could happen. Premeditation and intent go out the window. An accident, a reaction, another member of a group's intent to kill sweep all into the worst punishment our laws dole out.

Consider, that someone who brutally attacks another person, or who acts on impulse to kill another, or who recklessly disregards the likelihood of death occurring does not face the same punishment. They are charged with assault, second degree murder or manslaughter.

Women and girls coerced into participating in crimes by abusive partners fall prey to felony murder charges as well. A 2018 California survey of 82 women serving a life sentence for felony murder in California found that 72% were not the actual perpetrators of the homicide.

Maryland law by deleting subsection (a)(4) of MD Crim. Law §2-201, and by providing for resentencing based on the underlying felony alone for those convicted of felony murder in the past. Doing so would remove from our laws this fictional intent to kill and the unfair sentencing it fosters. Any legislation that moves in this direction should be supported.



## Guest Commentary

Maryland Matters welcomes guest commentary submissions at [editor@marylandmatters.org](mailto:editor@marylandmatters.org). We suggest a 750-word limit and reserve the right to edit or reject submissions. We do not accept columns that are endorsements of candidates or submissions from political candidates. Views of writers are their own.

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# SMOKEFREE IS SMOKEFREE

Nobody should have to breathe secondhand marijuana smoke or vapor at work, in public, or where they live.

Smoke is smoke—regardless of the device or description. Secondhand marijuana smoke contains hundreds of chemicals—just like secondhand tobacco smoke. Many of the chemicals in secondhand marijuana smoke are toxic and contain hazardous fine particles that pose a significant health risk to non-smokers.

- More laws legalizing marijuana = increased exposure to secondhand marijuana smoke and vapor.
- Employees & patrons protected by current smokefree laws may have their health put at risk by exposure to marijuana smoke or vapor. Marijuana smoking or vaping should not be allowed in smokefree spaces.
- The commercialized marijuana industry looks and sounds a lot like Big Tobacco. Together they are working to circumvent progress on smokefree air.
- The vast majority of the population are non-smokers. Smokefree means smokefree—no cigarettes and cigars, e-cigarette use, or marijuana smoking or vaping.

## SECONDHAND MARIJUANA SMOKE

contains many of the same **CANCER-CAUSING SUBSTANCES** and **TOXIC CHEMICALS** as secondhand tobacco smoke, including:



**3 times** the amount of **ammonia**



significant levels of **mercury, lead, formaldehyde, benzene, hydrogen cyanide, & toluene.**

## PROTECT HEALTH

**Protect workers and the public from exposure to secondhand smoke** by prohibiting marijuana smoking in all workplaces and enclosed public places.



As of October, 2022, 876 localities and 38 states/territories/commonwealths restrict marijuana use in some or all smokefree spaces. Of these, 468 localities and 23 states/territories/commonwealths prohibit smoking and vaping of recreational and medical marijuana in one or more of the following venues: non-hospitality workplaces, restaurants, bars, and/or gambling facilities.

For more information about marijuana and smokefree laws, visit

 [no-smoke.org](https://no-smoke.org)



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# Chest CT Findings in Marijuana Smokers

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See editorial by Jeffrey Galvin

## Abstract

### Background

Global consumption of marijuana is increasing, but there is a paucity of evidence concerning associated lung imaging findings.

### Purpose

To use chest CT to investigate the effects of marijuana smoking in the lung.

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emphysema, airway changes, gynecomastia, and coronary artery calcification. Age- and sex-matched subgroups were created for comparison with tobacco-only smokers older than 50 years. Results were analyzed using  $\chi^2$  tests.

## Results

A total of 56 marijuana smokers (34 male; mean age, 49 years  $\pm$  14 [SD]), 57 nonsmoker control patients (32 male; mean age, 49 years  $\pm$  14), and 33 tobacco-only smokers (18 male; mean age, 60 years  $\pm$  6) were evaluated. Higher rates of emphysema were seen among marijuana smokers (42 of 56 [75%]) than nonsmokers (three of 57 [5%]) ( $P < .001$ ) but not tobacco-only smokers (22 of 33 [67%]) ( $P = .40$ ). Rates of bronchial thickening, bronchiectasis, and mucoid impaction were higher among marijuana smokers compared with the other groups ( $P < .001$  to  $P = .04$ ). Gynecomastia was more common in marijuana smokers (13 of 34 [38%]) than in control patients (five of 32 [16%]) ( $P = .039$ ) and tobacco-only smokers (two of 18 [11%]) ( $P = .040$ ). In age-matched subgroup analysis of 30 marijuana smokers (23 male), 29 nonsmoker control patients (17 male), and 33 tobacco-only smokers (18 male), rates of bronchial thickening, bronchiectasis, and mucoid impaction were again higher in the marijuana smokers than in the tobacco-only smokers ( $P < .001$  to  $P = .006$ ). Emphysema rates were higher in age-matched marijuana smokers (28 of 30 [93%]) than in tobacco-only smokers (22 of 33 [67%]) ( $P = .009$ ). There was no difference in rate of coronary artery calcification between age-matched marijuana smokers (21 of 30 [70%]) and tobacco-only smokers (28 of 33 [85%]) ( $P = .16$ ).

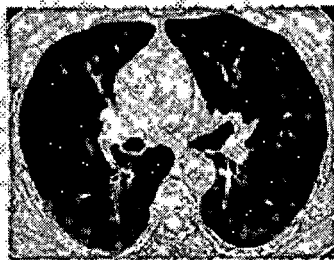
## Conclusion

Airway inflammation and emphysema were more common in marijuana smokers than in nonsmokers and tobacco-only smokers, although variable interobserver agreement and concomitant cigarette smoking among the marijuana-smoking cohort limits our ability to draw strong conclusions.

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See also the editorial by Galvin and Franks in this issue.

### Chest CT Findings in Marijuana Smokers



Paraseptal emphysema in bilateral upper lobes of a marijuana smoker.

- Retrospective case-control study of chest CT findings in 56 marijuana smokers, 57 nonsmokers, and 33 tobacco-only smokers.
- Marijuana smokers had higher rates of airway changes ( $P < .001$  to  $P = .04$ ), and emphysema was more common than in nonsmokers (75% vs 5%,  $P < .001$ ).
- Age- and sex-matched marijuana smokers had higher rates of emphysema (93% vs 67%,  $P = .009$ ) compared to tobacco-only smokers; the paraseptal subtype was predominant in marijuana smokers.

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<https://doi.org/10.1148/radiol.212611>

Radiology

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## Summary

In this case-control study of marijuana smokers, nonsmokers, and tobacco-only smokers, smoking marijuana was associated with paraseptal emphysema, bronchiectasis, bronchial wall thickening, and airway mucoid impaction.

## Key Results

- In this retrospective case-control study analyzing chest CT findings in 56 marijuana smokers, 57 nonsmokers, and 33 tobacco-only smokers, marijuana smokers had higher rates of airway changes than did tobacco-only smokers or nonsmokers ( $P < .001$  to  $P = .04$ ).
- Emphysema was more common in marijuana smokers than in nonsmokers (75% vs 5%,  $P < .001$ ) and in age- and sex-matched marijuana smokers than in tobacco-only smokers (93% vs 67%,  $P = .009$ ); the paraseptal subtype of emphysema was predominant in marijuana smokers.

## Introduction

Marijuana is the most widely used illicit psychoactive substance in the world (1) and the second-most commonly smoked substance after tobacco (2). Its use has increased in Canada since the legalization of nonmedical marijuana in 2018. In 2020, 20% of the population in Canada aged at least 15 years reported having used marijuana in the previous 3 months compared with 14% of the population before marijuana legalization (3). In the United States, the percentage of all adults reporting marijuana use within the previous year rose from 6.7% in 2005 to 12.9% in 2015 (4).

Marijuana is consumed via multiple routes, including smoking, vaporizing, and eating, with inhaled methods being the most common (5). It may be smoked by itself or mixed with tobacco. It is usually smoked without a filter, and users inhale larger volumes with a longer breath hold compared with tobacco smokers (6). For measures of airflow obstruction, one marijuana joint can produce an effect similar to that of 2.5–5.0 tobacco cigarettes (7). Marijuana smoke contains known carcinogens and other chemicals associated with respiratory diseases (8).

Numerous studies have focused on the relationship of marijuana to pulmonary function tests, symptoms, and lung cancer. Two recent systematic reviews (2,9) determined that heavy marijuana use can lead to respiratory symptoms similar to those in tobacco smokers, including cough, sputum production, and wheeze. These are likely related to inflammation of the tracheobronchial mucosa (10) and mucus hypersecretion (11). One study posits that although marijuana causes bronchitis in current users, it does not lead to irreversible airway damage (6). The relationship of marijuana use to pulmonary function test results and lung cancer occurrence is described as equivocal, and both review studies comment on the possibility of the bronchodilatory effect of chronic marijuana smoking leading to a long-term increase in forced vital capacity, a trend also observed in a large population-based cohort study (12). Pulmonary function tests also indicate central airway inflammation in marijuana smokers (6).

To our knowledge, only two previous studies (7,13) have evaluated lung imaging findings in marijuana smokers and neither could establish a clear association between marijuana smoking and emphysema. Other

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The purpose of this study was to use chest CT to investigate the effects of marijuana smoking on the lung. We sought to determine if there were identifiable sequelae on chest CT images, including emphysema and signs of airway inflammation.

## Materials and Methods

### Patients

This retrospective case-control study was performed with approval and waiver of informed consent from the local institutional review board. We included chest CT studies obtained prior to November 2020 at The Ottawa Hospital, a tertiary care center, and its affiliate hospitals. Patients were assigned to one of the following three groups: marijuana smokers, nonsmoker control patients, or tobacco-only smokers.

**Marijuana smokers.**—Cases were identified by searching for the terms *marijuana* and *cannabis* in The Ottawa Hospital picture archiving and communications system, and results were filtered to include only those in which chest CT was performed. Charts were reviewed to assess the frequency and duration of marijuana use, as well as for concomitant tobacco use. A total of 56 marijuana smokers were identified with chest CT performed between October 2005 and July 2020. Patient ages were sorted into 5-year age blocks (15–19 years, 20–24 years, 25–30 years, etc), and the number of men and women in each age category was determined. Marijuana consumption was quantified using the conversion of 0.32 g of marijuana per joint, as described by Ridgeway et al (14).

**Nonsmoker control patients.**—The pool of control patients was identified by searching for the phrase *sarcoma initial staging* in The Ottawa Hospital picture archiving and communications system. Initial staging chest CT of patients with newly diagnosed sarcoma and without history of smoking, lung disease, or chemotherapy was chosen. Patient charts were reviewed for use of marijuana or tobacco. In the case of marijuana smokers, the patient was excluded from the nonsmoker control group and added to the marijuana smoker group. New control patients were then selected. If the patient smoked only tobacco, he or she was not included in the nonsmoker control group. Fifty-seven control patients were identified with chest CT performed between April 2010 and October 2019. Control subjects were sorted into 5-year age blocks, and an appropriate age- and sex-matched subgroup was created.

**Tobacco-only smokers.**—The pool of tobacco-only smokers included patients with a chest CT examination performed as part of the high-risk lung cancer screening program (minimum age, 50 years; smoking history, >25 pack-years). Tobacco-only smokers were selected in a similar manner to those in the nonsmoker control group. Patient charts were reviewed for use of marijuana. If marijuana use was identified, the patient was excluded and added to the group of marijuana smokers, and a new patient was selected. Thirty-three tobacco-only smokers were identified with chest CT performed between April and June 2019.

**Age- and sex-matched subgroups.**—Because the tobacco smoker group included only patients aged at least 50 years, similarly aged patients in the marijuana smoker group and the nonsmoker control group were included in the subgroup analysis.

### Image Analysis

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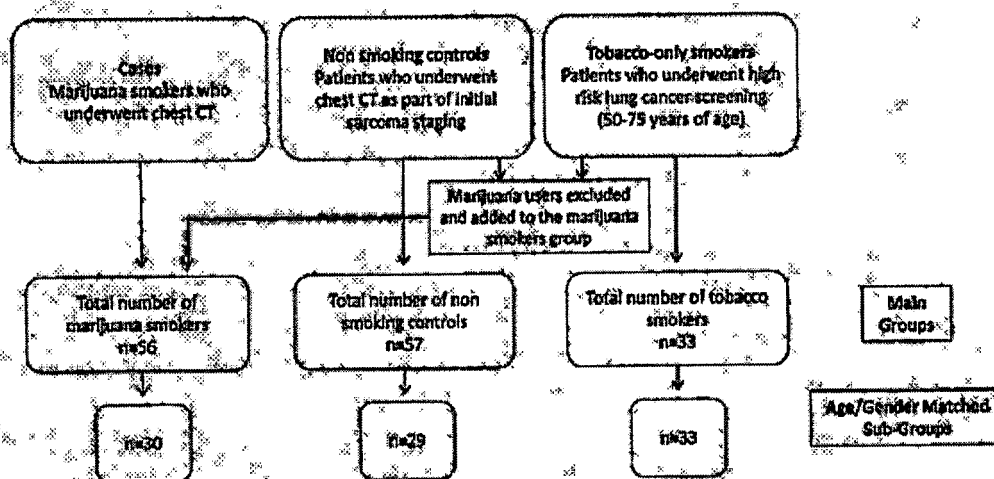
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mGy·cm, respectively. All images from chest CT studies were reviewed separately by two thoracic fellowship-trained radiologists (G.R., P.S.; 10 and 3 years of experience, respectively), who were blinded to clinical history (ie, marijuana and tobacco use) and other imaging findings. To assess interobserver variability, CT images from 30 patients (10 patients from each group) were reviewed initially. Final statistical analyses were performed on imaging findings obtained using consensus reads involving both radiologists on the entire study population of 146 patients. Lung findings assessed were (a) emphysema and (b) airway changes.

**Emphysema.**—The predominant pattern of emphysema (paraseptal or centrilobular) was recorded in accordance with Fleischner society descriptions (15).

**Airway changes.**—Bronchiectasis and bronchial wall thickening (Fig 3A) in accordance with descriptions by Ooi et al (16) and mucoid impaction presence or absence were recorded. The presence or absence of inflammatory small airway disease, in the form of centrilobular nodular opacities (15), also was recorded. Air trapping was not assessed because expiratory acquisitions were not available for all patients.



**Figure 1:** Flowchart shows patient inclusion and exclusion criteria for this study. Subgroups were created by age and sex matching to the tobacco-only cohort (who were taken from the high-risk lung cancer screening program; to qualify for screening, these patients needed to be 50 years or older). Any patients 50 years or older in the marijuana smoker or nonsmoker main groups were included in the subgroup analysis. Patients younger than 50 years in the marijuana smoker or nonsmoker main groups were excluded from subgroup analysis.

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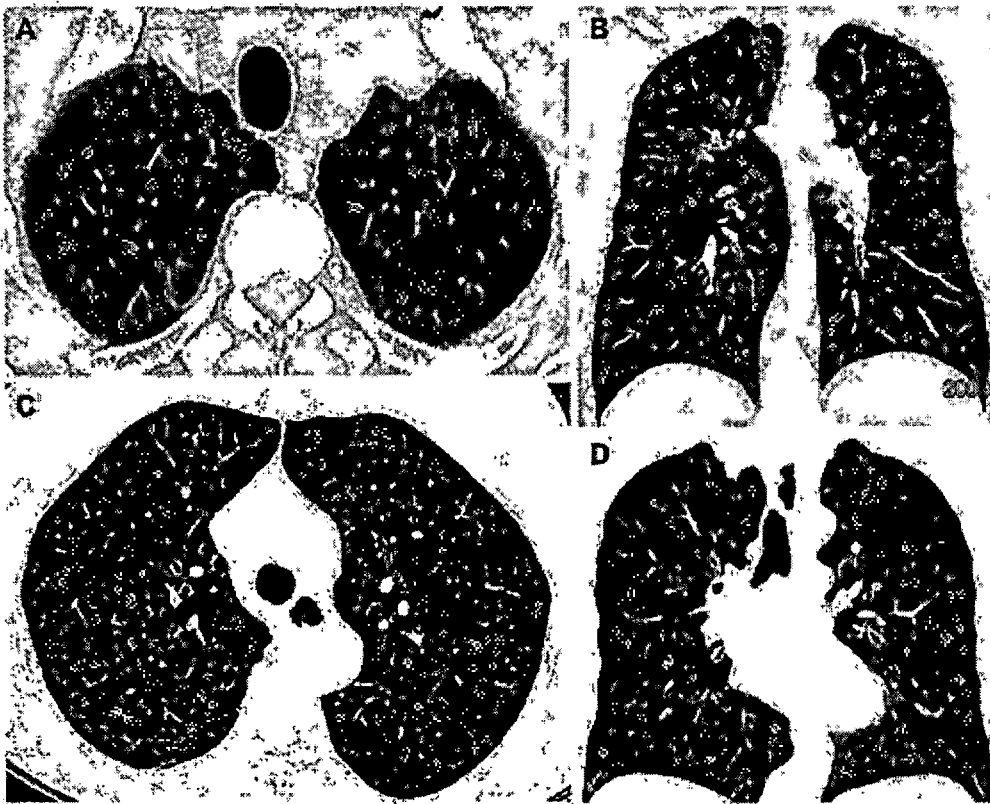
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**Figure 2:** Airway changes in a 66-year-old male marijuana and tobacco smoker: Contrast-enhanced (A) axial and (B) coronal CT images show cylindrical bronchiectasis and bronchial wall thickening (arrowheads) in multiple lung lobes bilaterally in a background of paraseptal (arrows) and centrilobular emphysema.

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**Figure 3:** Pulmonary emphysema in (A, B) marijuana and (C, D) tobacco smokers. (A) Axial and (B) coronal CT images in a 44-year-old male marijuana smoker show paraseptal emphysema (arrowheads) in bilateral upper lobes. (C) Axial and (D) coronal CT images in a 66-year-old female tobacco smoker with centrilobular emphysema represented by areas of centrilobular lucency (arrowheads).

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**Non-lung-related findings.**—Gynecomastia was recorded with a cutoff dimension of 22 mm of breast tissue (17). Coronary artery calcification was evaluated using the ordinal scoring method previously used by Shemesh et al (18), and a score of 0–12 was recorded for each patient.

## Statistical Analyses

Interobserver agreement was evaluated using the Cohen  $\kappa$  statistic. Results were analyzed using  $\chi^2$  tests to assess for significant differences in rates of emphysema, bronchiectasis, bronchial wall thickening, mucoid impaction, gynecomastia, and coronary artery disease between groups of marijuana smokers, tobacco smokers, and control patients; statistical significance was set at  $P < .05$ . Marijuana smokers were compared with control subjects in the main group analysis, and they were compared with both tobacco smokers and control patients in the subgroup analysis. The  $\chi^2$  tests were performed using an online statistics calculator (<https://www.socscistatistics.com/>).

## Results

### Patient Characteristics

A total of 56 marijuana smokers (mean age, 49 years  $\pm$  14 [SD]; 34 male, 22 female) and 57 control patients (mean age, 49 years  $\pm$  14; 32 male, 25 female) were identified. Patients older than 50 years were included in subgroups for comparison with those who only smoked tobacco; subgroups consisted of 30 marijuana smokers (mean age, 60 years  $\pm$  6; 23 male, seven female), 29 control patients (mean age, 61 years  $\pm$  6; 17 male, 12 female), and 33 tobacco-only smokers (mean age, 60 years  $\pm$  6; 18 male, 15 female). Patient selection criteria are summarized in Figure 1, and patient characteristics are summarized in Table 1.

**Table 1: Patient Characteristics**

Characteristic	Main Group			Age- and Sex-matched Subgroup		
	Marijuana Smokers (n = 56)	Non-smoker Control Patients (n = 57)	Tobacco-only Smokers (n = 33)	Marijuana Smokers (n = 30)	Non-smoker Control Patients (n = 29)	Tobacco-only Smokers (n = 33)
Age (y) <sup>1</sup>	49 $\pm$ 14 (20–73)	49 $\pm$ 14 (19–75)	60 $\pm$ 6 (50–71)	60 $\pm$ 6 (50–73)	61 $\pm$ 6 (51–75)	60 $\pm$ 6 (50–71)
Sex						
Male	34	32	18	23	17	18
Female	22	25	15	7	12	15

<sup>1</sup> Data are mean  $\pm$  SD, and data in parentheses are the range.  
<sup>2</sup> Data are number of patients.

Our ability to quantify marijuana use was limited, with a daily amount specified in only 28 of 56 patients; average marijuana consumption among these patients was 1.85 g per day (range, 0.25–9.25 g per day). There were 50 of 56 marijuana smokers who also smoked tobacco, with pack-year data specified in only 47 patients; average smoking history was 25 pack-years (range, 0–100 pack-years) (14).

For tobacco-only smokers, average smoking history was 40 pack-years (range, 25–105 pack-years).

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For the analysis of 30 patients, interobserver agreement between the two readers was fair for assessment of bronchiectasis ( $\kappa = 0.27$ ), moderate for assessment of bronchial wall thickening ( $\kappa = 0.49$ ), substantial for assessment of emphysema ( $\kappa = 0.79$ ), and strong for assessment of mucoid impaction ( $\kappa = 0.84$ ).

## Marijuana Smokers versus Nonsmoker Controls

There were differences in rates of emphysema (both paraseptal and centrilobular) (75% vs 5%,  $P < .001$ ), bronchial thickening (64% vs 11%,  $P < .001$ ), bronchiectasis (23% vs 4%,  $P = .002$ ), and mucoid impaction (46% vs 2%,  $P < .001$ ) between marijuana smokers and nonsmoker control patients, respectively. No patient had pneumothorax.

Subgroup analysis demonstrated differences in frequency of bronchial thickening (83% vs 21%,  $P < .001$ ), bronchiectasis (33% vs 7%,  $P = .012$ ) and mucoid impaction (67% vs 3%,  $P < .001$ ) between marijuana smokers and nonsmoker control patients, respectively.

Centrilobular nodules were observed in 18% of marijuana smokers while no nonsmoker control patients exhibited this finding ( $P < .001$ ). Gynecomastia was significantly more common in marijuana smokers than in nonsmoker control patients (38% vs 16%,  $P = .04$ ). While there was a difference in coronary artery calcification rates between marijuana smokers and nonsmoker control patients (43% vs 26%), this did not reach statistical significance ( $P = .06$ ).

## Marijuana Smokers versus Tobacco-only Smokers

Differences in bronchial thickening (64% vs 42%,  $P = .04$ ), bronchiectasis (23% vs 6%,  $P = .04$ ), and mucoid impaction (46% vs 15%,  $P = .003$ ) were seen in the non-age-matched marijuana group compared with the tobacco-only group. Subgroup analysis again demonstrated significant differences in rates of bronchial thickening (83% vs 42%,  $P < .001$ ), bronchiectasis (33% vs 6%,  $P = .006$ ), and mucoid impaction (67% vs 15%,  $P < .001$ ) in marijuana smokers compared with tobacco-only smokers. Figure 2 demonstrates CT findings of airway changes in a combined marijuana and tobacco smoker. Variable interobserver agreement limits our ability to draw strong conclusions about bronchial wall thickening and bronchiectasis.

We found no difference between the overall rates of emphysema (including both paraseptal and centrilobular emphysema) when comparing non-age-matched marijuana smokers and tobacco-only smokers (75% vs 67%,  $P = .40$ ); however, higher rates of emphysema were noted when the age-matched marijuana group was compared with the tobacco-only group (93% vs 67%,  $P = .01$ ). Also, a significant difference in a paraseptal predominant pattern of emphysema was seen in the marijuana smokers compared with the tobacco-only smokers (57% vs 24%,  $P = .009$ ) (Fig 3), while we found no evidence of a difference in the proportion of those with a centrilobular pattern (37% vs 39%,  $P = .82$ ). Rates of the key CT findings in each cohort are summarized for the main group in Table 2 and for the subgroup in Table 3.

**Table 2: Rates of Thoracic CT Findings among Marijuana Smokers, Nonsmoker Control Patients, and Tobacco Smokers (Main Groups)**

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**Table 2: Rates of Thoracic CT Findings among Marijuana Smokers, Nonsmoker Control Patients, and Tobacco Smokers (Main Groups)**

Finding	Marijuana Smokers	Nonsmoker Control Patients	Tobacco-only Smokers	P Value for Marijuana Smokers vs Nonsmoker Control Patients	P Value for Marijuana Smokers vs Tobacco-only Smokers
Emphysema	42/56 (75) [63, 87]	3/57 (5) [0, 11]	22/33 (67) [50, 83]	<.001	.40
Paraseptal emphysema	27/56 (48) [35, 61]	3/57 (5) [0, 11]	8/33 (24) [9, 39]	<.001	.03
Bronchial thickening	36/56 (64) [51, 77]	6/57 (11) [2, 19]	14/33 (42) [25, 60]	<.001	.04
Bronchiectasis	18/56 (32) [12, 34]	2/57 (4) [0, 8]	2/33 (6) [0, 14]	.002	.04
Mucoid impaction	20/56 (36) [23, 50]	1/57 (2) [0, 5]	5/33 (15) [3, 28]	<.001	.003
Gynecomastia	13/34 (38) [22, 55]	5/32 (16) [3, 28]	2/18 (11) [0, 26]	.04	.04
Coronary artery calcification	21/56 (38) [30, 50]	15/57 (26) [13, 41]	28/33 (85) [72, 97]	.06	<.001

Note.—Data are numbers of patients (numerator and denominator). Data in parentheses are percentages, and data in brackets are 95% CIs.

**Table 3: Rates of Thoracic CT Findings among Marijuana Smokers, Nonsmoker Control Patients, and Tobacco Smokers (Age- and Sex-matched Subgroups)**

Finding	Marijuana Smokers	Nonsmoker Control Patients	Tobacco-only Smokers	P Value for Marijuana Smokers vs Nonsmoker Control Patients	P Value for Marijuana Smokers vs Tobacco-only Smokers
Emphysema	28/30 (93) [84, 100]	2/29 (7) [0, 16]	22/33 (67) [50, 83]	<.001	.009
Paraseptal emphysema	17/30 (57) [39, 75]	2/29 (7) [0, 16]	8/33 (24) [9, 39]	<.001	.009
Bronchial thickening	25/30 (83) [70, 97]	6/29 (21) [6, 36]	14/33 (42) [25, 60]	<.001	<.001
Bronchiectasis	10/30 (33) [16, 50]	2/29 (7) [0, 16]	2/33 (6) [0, 14]	.01	.006
Mucoid impaction	20/30 (67) [50, 84]	1/29 (3) [0, 10]	5/33 (15) [3, 28]	<.001	<.001
Gynecomastia	10/23 (43) [23, 64]	3/17 (18) [0, 36]	2/18 (11) [0, 26]	.03	.02
Coronary artery calcification	21/30 (70) [50, 84]	14/29 (48) [30, 67]	28/33 (85) [72, 97]	.09	.16

Note.—Data are numbers of patients (numerator and denominator). Data in parentheses are percentages, and data in brackets are 95% CIs.

## Discussion

In this era of legalization and increasing consumption of marijuana, we sought to identify the imaging features of marijuana smoking on chest CT scans. We found higher rates of emphysema among marijuana smokers (42 of 56, 75%) than among nonsmokers (three of 57, 5%) ( $P < .001$ ) and among age-matched marijuana smokers (28 of 30, 93%) than among tobacco-only smokers (22 of 33, 67%) ( $P = .009$ ). Paraseptal emphysema was more predominant in marijuana smokers (27 of 56, 48%) than in tobacco-only smokers (eight of 33, 24%) ( $P = .03$ ) and in age-matched marijuana smokers (17 of 30, 57%) than in tobacco-only smokers (eight of 33, 24%) ( $P = .009$ ). Markers of airway inflammation were higher among marijuana smokers than among other groups for both non-age-matched and age-matched subgroup comparisons ( $P < .001$  to  $P = .04$ ). Gynecomastia was more common in marijuana smokers (13 of 34, 38%) than in control patients (five of 32, 16%) ( $P = .039$ ) or tobacco-only smokers (two of 18, 11%) ( $P = .04$ ). There was no evident difference in the presence of coronary artery calcification between age-matched marijuana smokers (21 of 30, 70%) and tobacco-only smokers (28 of 33, 85%) ( $P = .16$ ).

It has been posited that certain maneuvers performed by marijuana smokers, such as full inhalation with a sustained Valsalva maneuver, may lead to microbarotrauma and peripheral airspace changes, such as apical bullae. In our study, paraseptal emphysema was the predominant pattern seen in marijuana smokers, while

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marijuana smoker group and the tobacco-only smoker groups and higher rates of emphysema among age-matched marijuana smokers compared with tobacco-only smokers. This is in contradistinction to a study by Ruppert et al (21), which showed similar prevalence of emphysema among 38 tobacco-only smokers and 32 tobacco and marijuana smokers but occurrence of emphysema in the latter group at a younger age. We were not able to establish a definite association between marijuana smoking and emphysema or bullous disease. Causality needs to be further examined in larger patient cohorts with prospective accurate quantification data, given the increasing body of evidence suggesting an association between smoking marijuana and spontaneous pneumothorax (22,23).

Bronchiectasis, bronchial wall thickening, and mucoid impaction are CT indicators of airway inflammation. Our findings suggest that smoking marijuana leads to chronic bronchitis in addition to the airway changes associated with smoking tobacco. This is especially striking given the extensive smoking history of patients in the tobacco-only group (smoking history, 25–100 pack-years). In addition, our results were still significant when comparing the non-age-matched groups, including younger patients who smoked marijuana and who presumably had less lifetime exposure to cigarette smoke. Further studies in larger cohorts are needed to better define imaging correlates of airway inflammation and chronic bronchitis that have been described in association with marijuana smoking in previous clinical studies and systematic literature reviews (2,24).

Poorly defined centrilobular ground-glass nodules can denote inflammatory small airway disease corresponding to the entity of respiratory bronchiolitis characterized by accumulation of pigmented histiocytes adjacent to respiratory bronchioles and alveolar ducts and sacs. This finding is commonly related to cigarette smoking (25,26) but can be related to inhalation of a variety of toxic particles (15). A histopathologic study comparing 10 marijuana smokers with five tobacco smokers and five nonsmokers reported that marijuana smoking was associated with massive intra-alveolar accumulation of pigmented histiocytes evenly throughout the pulmonary parenchyma, assumed to be related to higher particulate matter concentration and deeper and longer inhalation techniques used by marijuana smokers (27). In our study, we found no differences in the occurrence of centrilobular nodules between marijuana smokers and tobacco-only smokers. However, this may be because 89% (50 of 56) marijuana smokers were also tobacco smokers. Further assessment in imaging-based studies with larger patient cohorts and better quantification data are required. Furthermore, biopsy confirmation may be needed to better understand the histopathology of these nodules in marijuana smokers: Are they related to respiratory bronchiolitis or organizing pneumonia (described by Berkowitz et al [28]).

We were unable to confirm an association between coronary artery calcification and marijuana smoking, similar to a systematic review of 24 articles that reported that evidence on the association of marijuana use with cardiovascular risk factors is insufficient to make conclusions (29). At least one recent study of 146 young marijuana users with chest pain found that marijuana use did not confer additional risk of coronary artery disease, as detected with coronary CT angiography (30). Tobacco smoking, on the other hand, is an established risk factor for coronary artery disease (31). Our study also enabled us to confirm the well-known relationship between regular long-term marijuana use and gynecomastia (32).

Our study had limitations. First, the small sample size precluded us from drawing strong conclusions. Second, the retrospective nature of the study had its own inherent limitations. Third, there was inconsistent quantification of patient marijuana use, due in part to the previous illegal nature of marijuana possession, which led to a lack of patient reporting. Accurate quantification is further complicated by the fact that users

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mismatch in the larger cohort, there are differences in the duration of smoking. Lastly, variable interobserver agreement limits our ability to draw strong conclusions about bronchial wall thickening and bronchiectasis.

In conclusion, our study suggests that distinct radiologic findings in the lung may be seen in marijuana smokers, including higher rates of paraseptal emphysema and airway inflammatory changes, such as bronchiectasis, bronchial wall thickening, and mucoid impaction when compared with nonsmoker control patients and those who only smoke tobacco. These findings may be related to specific inhalational techniques while smoking marijuana, as well as to the bronchodilatory and immunomodulatory properties of its components. Further larger and prospective studies are necessary to confirm and further elucidate these findings, as marijuana use is bound to increase in the future, given the increasing legalization of its use for medical and recreational purposes.

**Disclosures of conflicts of interest:** L.M. No relevant relationships; P.S. No relevant relationships; J.P.S. No relevant relationships; M.D.F.M. *Radiology* editorial board; G.R. Legal advice for BLG firm.

## Author Contributions

**Author contributions:** Guarantors of integrity of entire study, L.M., P.S., G.R.; study concepts/study design or data acquisition or data analysis/interpretation, all authors; manuscript drafting or manuscript revision for important intellectual content, all authors; approval of final version of submitted manuscript, all authors; agrees to ensure any questions related to the work are appropriately resolved, all authors; literature research, L.M., P.S., M.D.F.M., G.R.; clinical studies, G.R.; statistical analysis, L.M., J.P.S., M.D.F.M., G.R.; and manuscript editing, all authors

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### We recommend

Morphologic effects of cigarette smoking on airways and pulmonary parenchyma in healthy adult volunteers: CT evaluation and correlation with pulmonary function tests.

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## Marijuana and Public Health

# Addiction (Marijuana or Cannabis Use Disorder)

Some people who use marijuana will develop marijuana use disorder, meaning that they are unable to stop using marijuana even though it's causing health and social problems in their lives.

- One study estimated that approximately 3 in 10 people who use marijuana have marijuana use disorder.<sup>1</sup>
- Another study estimated that people who use cannabis have about a 10% likelihood of becoming addicted.<sup>2</sup>
- The risk of developing marijuana use disorder is greater in people who start using marijuana during youth or adolescence and who use marijuana more frequently.<sup>3</sup>

The following are signs of marijuana use disorder <sup>4</sup>:

- Using more marijuana than intended
- Trying but failing to quit using marijuana
- Spending a lot of time using marijuana
- Craving marijuana
- Using marijuana even though it causes problems at home, school, or work
- Continuing to use marijuana despite social or relationship problems.
- Giving up important activities with friends and family in favor of using marijuana.
- Using marijuana in high-risk situations, such as while driving a car.
- Continuing to use marijuana despite physical or psychological problems.
- Needing to use more marijuana to get the same high.
- Experiencing withdrawal symptoms when stopping marijuana use.

People who have marijuana use disorder may also be at a higher risk of other negative consequences, such as problems with attention, memory, and learning.

Some people who have marijuana use disorder may need to use more and more marijuana or greater concentrations of marijuana over time to experience a "high." The greater the amount of tetrahydrocannabinol (THC) in marijuana (in other words, the concentration or strength), the stronger the effects the marijuana may have on the brain.<sup>5,6</sup> The amount of THC in marijuana has increased over the past few decades.<sup>6</sup>

In a study of cannabis research samples over time, the average delta-9 THC (the main form of THC in the cannabis plant) concentration almost doubled, from 9% in 2008 to 17% in 2017.<sup>7</sup> Products from dispensaries often offer much higher concentrations than seen in this study. In a study of products available in online dispensaries in 3 states with legal non-medical adult marijuana use, the average THC concentration was 22%, with a range of 0% to 45%.<sup>8</sup> In addition, some methods of using marijuana (for example, dabbing and vaping concentrates) may deliver very high levels of THC to the user.<sup>6,9</sup>

Researchers do not yet know the full extent of the consequences when the body and brain are exposed to high concentrations of THC or how recent increases in concentrations affect the risk of someone developing marijuana use disorder.<sup>6</sup>

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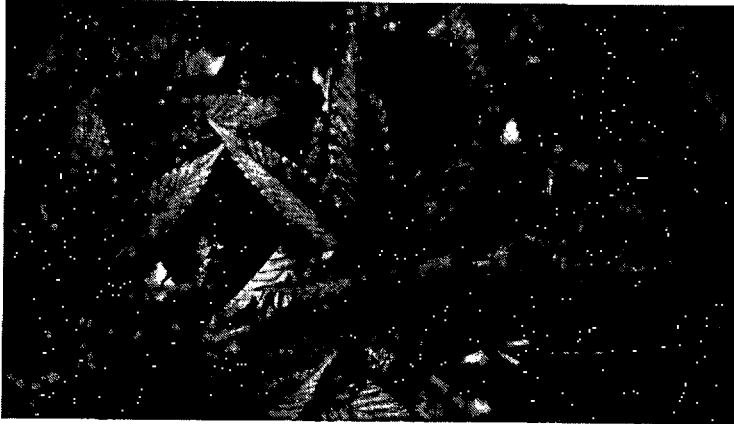
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# British Mental Health Experts Warn Cannabis Is Not a Harmless Drug - It's Linked to Psychosis and Addiction

08-08-2022

Steve Warren

Cannabis leaves. (Photo by Jeff W via Unsplash)

A major medical journal in the United Kingdom has published a detailed research paper by mental health experts warning cannabis products with high concentrations of THC, a chemical known to affect the mind, have been associated with psychosis and dependence in users.

The experts' analysis was published in the British journal ***The Lancet*** on July 25.

"We present, to our knowledge, the first systematic review of the association of cannabis potency with mental health and addiction," epidemiologists Lindsey Hinds and Gemma Taylor, psychologist Tom Freeman and the paper's three other authors wrote in the paper's introduction, according to ***The College Fix***.

"Overall, use of higher potency cannabis, relative to lower potency cannabis, was associated with an increased risk of psychosis and cannabis use disorder," the paper stated. "Evidence varied for depression and anxiety."

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According to the researchers, THC cannabis concentrations have increased around the world in recent years.

"In the USA and Europe, the concentration of THC has more than doubled over the past 10 years, and new legal markets have facilitated the rapid development of cannabis products with higher potencies than earlier products, such as concentrated extracts," the researchers noted.

The authors also explained people who used cannabis with high THC levels were more likely to have a "psychotic episode." One study even found that people who use the highly potent marijuana daily were five times more likely to be diagnosed with psychosis compared to those who never use the drug," **The Fix** reported.

Medical experts have previously warned that marijuana can be highly addictive. According to a **report** published by the National Institute on Drug Abuse, and last updated in April 2020, "Marijuana use can lead to the development of problem use, known as marijuana use disorder, which takes the form of addiction in severe cases. Recent data suggest that 30% of those who use marijuana may have some degree of marijuana use disorder."

"Experimental studies show that THC causes intoxication, cognitive impairment, anxiety, and transient psychosis-like experiences," the authors wrote. "The effects of THC are dose-dependent, which means that higher potency cannabis products (products with high THC concentrations) could increase the risk of harm to cannabis users."

Currently, in the U.S., 37 states and Washington, D.C. allow the restricted medical use of cannabis. Nineteen states and D.C. also allow the legal recreational use of marijuana.

With the rise in the drug's use, some have called for the legalization of the drug on the federal level. On July 16, **President Joe Biden** said, "I don't think anyone should be in prison for the use of marijuana. We're working on the crime bill now."

On July 21, Senate Democrats disclosed their marijuana legalization proposal that would lift the federal prohibition on the drug and cede power to states to determine how to regulate it, according to **ABC News**.

Known as *The Cannabis Administration and Opportunity Act*, the proposed measure is backed by Senate Majority Leader Chuck Schumer (D-NY), Finance Committee Chair Ron Wyden (D-OR), and Sen. Cory Booker (D-NJ). It would legalize marijuana across the nation while creating FDA requirements like regulations that monitor other products like tobacco and alcohol.

"Cannabis legalization has proven immensely successful at the state level, so it is time that Congress catches up with the rest of the country," Schumer said in a speech from the Senate floor. "I am proud to be the first Majority Leader ever to say that it is time to end the federal prohibition on cannabis, and this bill provides the best framework for updating our cannabis laws and reversing decades of harm inflicted by the war on drugs."

But political pundits note the measure will have an uphill fight in the Senate, where it would need at least 10 Republicans to support the measure. Not all Democrats in the chamber are guaranteed to back it either.

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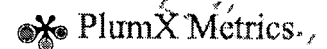


REVIEW | VOLUME 9, ISSUE 9, P736-750, SEPTEMBER 01, 2022

# Association of cannabis potency with mental ill health and addiction: a systematic review

Kat Petrilli, MRes • Shelan Ofori, MRes • Lindsey Hines, PhD • Gemma Taylor, PhD • Sally Adams, PhD •

Tom P Freeman, PhD

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## Summary

Cannabis potency, defined as the concentration of  $\Delta^9$ -tetrahydrocannabinol (THC), has increased internationally, which could increase the risk of adverse health outcomes for cannabis users. We present, to our knowledge, the first systematic review of the association of cannabis potency with mental health and addiction (PROSPERO, CRD42021226447). We searched Embase, PsycINFO, and MEDLINE (from database inception to Jan 14, 2021). Included studies were observational studies of human participants comparing the association of high-potency cannabis (products with a higher concentration of THC) and low-potency cannabis (products with a lower concentration of THC), as defined by the studies included, with depression, anxiety, psychosis, or cannabis use disorder (CUD). Of 4171 articles screened, 20 met the eligibility criteria: eight studies focused on psychosis, eight on anxiety, seven on depression, and six on CUD. Overall, use of higher potency cannabis, relative to lower potency cannabis, was associated with an increased risk of psychosis and CUD. Evidence varied for depression and anxiety. The association of cannabis potency with CUD and psychosis highlights its relevance in health-care settings, and for public health guidelines and policies on cannabis sales. Standardisation of exposure measures and longitudinal designs are needed to strengthen the evidence of this association.





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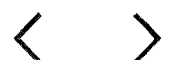
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# MODEL ORDINANCE REGULATING LOCAL CANNABIS RETAIL SALES & MARKETING IN CALIFORNIA

FEBRUARY 2021



2ND EDITION



**Getting it Right**  
· from the Start ·

Advancing Public Health & Equity in Cannabis Policy



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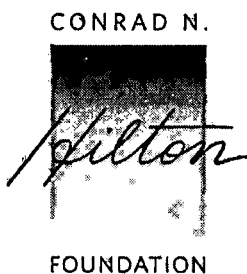
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## Getting it Right from the Start

*A project of the Public Health Institute*

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## Note

The legal information provided in this model ordinance does not constitute legal advice or legal representation. For legal advice, readers should consult an attorney in their state.

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## Introduction

Cannabis, like alcohol and tobacco, is an addictive substance that should not be treated as an ordinary commodity in the marketplace.<sup>1</sup> While decriminalization is a useful tool, an unfettered commercial framework should not be the substitute. Rather, where sale is legalized, cannabis regulation should be grounded in public health protection and a primary goal should be to establish a legal market while at the same time mitigating and preventing harm through careful regulation. This means ensuring that emerging commercial interests do not outweigh the need for healthy environments for youth to flourish. While illegality did not keep youth from using cannabis, the rapid heating of the new cannabis market is leading it to "boil over," exposing young people to increasingly potent and addictive products and intensive marketing. That overheating is happening today - youth marijuana use has reached its highest levels in 35 years, daily use and use during pregnancy are climbing, and a vaping epidemic has swept the nation.

As a community, we have a collective responsibility to protect children and youth from harm to the developing brain. Of particular concern is the impact of legalization on youth below age 25, because research suggests that use among youth carries special risks to the developing brain that are not present for older adults. For example, daily use of cannabis by high school students halves the high school graduation rate;<sup>2</sup> and daily consumption of cannabis with over 10% THC - virtually the entire California market today, is associated with a fivefold increase in odds of developing psychosis, a heartrending burden for families and an expensive and complex burden for communities.<sup>3</sup> Vaping of cannabis by youth 18-22 doubled in a single year between 2017 and 2018, young adult marijuana use is at a 35-year high, and daily marijuana use amongst 8th, 10th and 12th graders has also risen precipitously.<sup>4</sup> In a single year, the vaping epidemic, driven by these vast increases in use and dangerously designed products, hospitalized over 2,700 and killed 68.<sup>5</sup>

This public health-focused Model Cannabis Retail Sales and Marketing Ordinance was first published in 2017, along with model local taxation ordinances to help local California jurisdictions respond more safely to the legalization of adult-use cannabis approved by voters in 2016, while recognizing the revenue concerns of local government. Those initial recommendations were widely shared with all cities and counties, public health authorities and community organizations.

<sup>1</sup> Mosher JF, Treffers R. Local Regulation of Medical Cannabis in California: Is Public Health a Priority? Ventura County Behavioral Health; 2017.

<sup>2</sup> Silins E, Horwood LJ, Patton GC, et al. Young adult sequelae of adolescent cannabis use: an integrative analysis. *Lancet Psychiatry*. 2014;1(4):286-293. doi:10.1016/S2215-0366(14)70307-4.

<sup>3</sup> Forti MD, Quattrone D, Freeman TP, et al. The contribution of cannabis use to variation in the incidence of psychotic disorder across Europe (EU-GEI): a multicentre case-control study. *Lancet Psychiatry*. 2019;0(0). doi:10.1016/S2215-0366(19)30048-3

<sup>4</sup> Miech, R. A., Schulenberg, J. E., Johnston, L. D., Bachman, J. G., O'Malley, P. M., & Patrick, M. E. (December 17, 2018). "National Adolescent Drug Trends in 2018." *Monitoring the Future*: Ann Arbor, MI. Retrieved 10/12/2020 from <http://www.monitoringthefuture.org>.

<sup>5</sup> Centers for Disease Control, Office on Smoking and Health, National Centers for Chronic Disease Prevention and Health Promotion (last reviewed Feb. 25, 2020). "Outbreak of Lung Injury Associated with the Use of E-Cigarette, or Vaping, Products." Retrieved 10/12/2020 from [https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/severe-lung-disease.html#latest-information](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html#latest-information).



Local jurisdictions made initial decisions whether (1) to do nothing, in which case retailers may apply for a state license to sell cannabis starting January 1, 2018; (2) to ban the sale of cannabis locally; or (3) to develop their own rules and regulations to govern the cultivation, production, sale and marketing of this product in their community. Alternatively, some communities decided to take more time to craft local policy through bans on recreational cannabis sales that were viewed as temporary.

Cities and counties have continued to gradually develop their approaches to cannabis commerce over the past three years. During that time 49% of California local jurisdictions, home to 57% of the population, opted to legalize sale of cannabis in some form, 48% allowing medical sales and 38% recreational.<sup>6</sup> Many of the recommendations of this model were adopted over the last two years in some communities. Of those allowing legal cannabis sales, 63% limited the number of dispensaries to an average of 1 per 19,000 residents, 86% did not allow on-site consumption, 27 jurisdictions required additional health warnings, 14% limited advertising or marketing in some way, however, only 5 created social equity programs in licensing and/or hiring. Contra Costa County banned flavored products for combustion or inhalation, and later banned all cannabis and tobacco vaping products. Mono County, Pasadena and Chula Vista prohibited cannabis-infused beverages or “canna-pops.” Half of jurisdictions allowing cannabis commercial activity instituted taxes, one based on potency (Cathedral City). Jurisdictions also came up with important ideas not included in the first edition. The State of California partially over-rode local control through its regulations, allowing licensed delivery businesses to deliver anywhere in the state, regardless of local bans, a decision that was reversed in 2020 as a result of litigation. Similarly, an attempt by the state to weaken the prohibition on billboards on highways was also rejected by the courts in 2020.

This Ordinance was developed by the **Public Health Institute’s Getting it Right from the Start: Advancing Public Health & Equity in Cannabis Policy**, to help cities and counties reduce negative health impacts of legalization, protect youth, and promote equity. We hope that this model can help bring public health insights to those efforts and will encourage cross-sectoral collaboration with local public health and mental health experts, as well as those from education, law enforcement and other relevant fields.

Current state law and regulation, based on Proposition 64, provide only weak public health protections and in the absence of strong regulation at the local level, state law allows an exponential expansion of the legal cannabis industry. Fortunately, Proposition 64 allows local governments the freedom to adopt more protective regulations than state law in a number of areas. This model addresses the areas of retail sales and of marketing, which will have the most immediate and largest public health effects. The project has also made available model laws for a

<sup>6</sup> Silver LD, Naprawa AZ, Padon AA. Assessment of Incorporation of Lessons From Tobacco Control in City and County Laws Regulating Legal Marijuana in California. *JAMA Network Open*. 2020;3(6):e208393. doi:10.1001/jamanetworkopen.2020.8393.

local general tax on cannabis, and for a special tax.<sup>7</sup> While issues such as manufacturing quality control and pesticide residues are important, we are focusing on the large public health effects that will arise from the extent of use post-legalization, which will in turn be guided by the intensity of retailing and marketing and patterns of product diversification.

The original model was produced after in-depth interviews with dozens of stakeholders from local jurisdictions, community members, academic and research experts, regulators from other states, legal experts, community coalitions, dispensary owners, laboratory experts, manufacturers, clinicians working with addiction, and others. This model uses best available evidence from the fields of alcohol and tobacco control, the experience of states which legalized earlier than California, the massive scientific review completed in 2017 by the National Academy of Sciences to identify key evidence-based risks of cannabis consumption,<sup>8</sup> the peer-reviewed scientific literature, the recent advisory from the U.S. Surgeon General on Marijuana and the developing brain,<sup>9</sup> and advice received on best practices or needed best practices from experts interviewed. Key challenges identified include the declining popular perception of harm, growing evidence of the existence of clear and significant harms from use to several population groups, the extraordinary incentives present in California to expand consumption given the enormity of our state's crop and the fact that less than one-fifth is currently consumed in-state, and the challenge of keeping marijuana-related income in low-income communities. We have sought to address these challenges. In the revised ordinance, we have incorporated best practices that have been identified and adopted from our research reviewing the laws of all 539 California cities and counties, and those in use by other states and internationally. We have removed certain recommendations now reflected in state law or regulation.

Cannabis regulation at the local level has often been led by local officials trained in planning and economic development, with limited experience in public health regulation of a harmful product. Proliferation of a multitude of new forms of cannabis that are potentially more harmful, and new cannabis products that are attractive to youth, should not be permitted. Whatever economic benefit this new legal industry brings should be shared by the communities that have been most affected by the war on drugs.

This model is a broad "menu." It contains guidance for establishing a basic regulatory structure. It also provides models for specific policies in a number of areas such as density, pricing, allowable and prohibited products, and marketing. In some cases, the model ordinance presents "options" in red. Jurisdictions may

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<sup>7</sup> Available at [www.gettingitrightfromthestart.org](http://www.gettingitrightfromthestart.org).

<sup>8</sup> The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research. The National Academies Press. <https://www.nap.edu/catalog/24625/the-health-effects-of-cannabis-and-cannabinoids-the-current-state>. Accessed Oct. 12, 2020.

<sup>9</sup> Office of the Surgeon General, U.S. Surgeon General's Advisory: Marijuana Use and the Developing Brain. Available at: <https://www.hhs.gov/surgeongeneral/reports-and-publications/addiction-and-substance-misuse/advisory-on-marijuana-use-and-developing-brain/index.html> (last accessed June 11, 2020).

choose to adopt all, none, or some of its provisions. Some measures that might be useful from a public health perspective, such as limitations on advertising on electronic media (TV, radio, Internet, etc.), may be difficult or impossible to impose at the local level and are therefore not presented as options here. Because this is a new and evolving area of law, some of the advertising restrictions or required warnings discussed may be questioned, and, in part as a result of the unique legal situation of cannabis (which remains federally illegal), the outcome of potential challenges is as yet unclear. We have omitted certain regulatory possibilities in this area due to legal complexity for local government and ask that you contact us directly if you wish to learn more about options.

You may be told that any protections will only fuel the illegal market. We believe this is not true. The illegal market in our state is driven primarily by vast overproduction, several fold what is consumed in-state, and is primarily exported, although part is consumed in state. Until the incentive for overproduction and illegal export is gone, they are unlikely to disappear. What local governments who wish to legalize can realistically accomplish is to create a safer and legal way for residents who wish to produce or to buy cannabis products to do so legally. The illegal market will eventually diminish, but it won't be because communities refrain from taxing or adopting appropriate public health protections to cater to industry preferences or profitability.

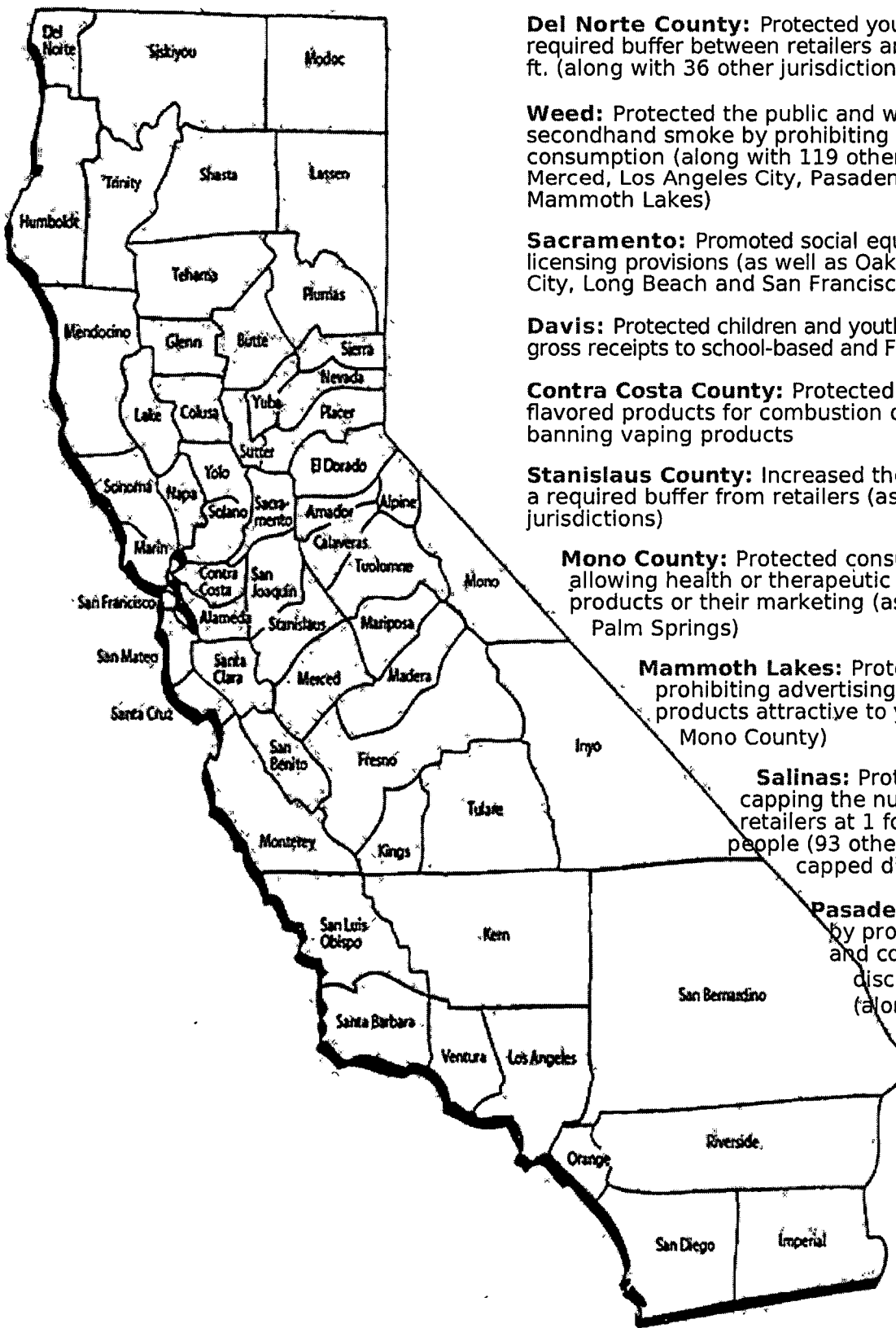
We are happy to speak with you to discuss the reasoning behind model ordinance provisions, and we welcome your input. This is a living and evolving document that will grow with your local experience and emerging evidence in addressing this new challenge, so regular updating is expected. As occurred in tobacco regulation, we believe that innovation and leadership for best practices will bubble up from our cities and counties across the nation. We look to you to provide that leadership and share your experience.

## **Note to Readers**

The legal information provided in this model ordinance does not constitute legal advice or legal representation. For legal advice, readers should consult an attorney in their state.

# California Best Practices Map

Here are some examples of what your neighbors are doing to protect youth, public health and social equity



**Del Norte County:** Protected youth by increasing the required buffer between retailers and schools to 1,000 ft. (along with 36 other jurisdictions)

**Weed:** Protected the public and workers against secondhand smoke by prohibiting on-site consumption (along with 119 other places such as Merced, Los Angeles City, Pasadena, Sacramento and Mammoth Lakes)

**Sacramento:** Promoted social equity through equity in licensing provisions (as well as Oakland, Los Angeles City, Long Beach and San Francisco)

**Davis:** Protected children and youth by allocating 1% of gross receipts to school-based and First 5 programs

**Contra Costa County:** Protected youth by prohibiting flavored products for combustion or inhalation, and banning vaping products

**Stanislaus County:** Increased the number of sites with a required buffer from retailers (as well as 100 other jurisdictions)

**Mono County:** Protected consumers by not allowing health or therapeutic claims on cannabis products or their marketing (as did Palm Springs)

**Mammoth Lakes:** Protected youth by prohibiting advertising, packaging and products attractive to youth (along with Mono County)

**Salinas:** Protected youth by capping the number of licensed retailers at 1 for every ~32,000 people (93 other jurisdictions also capped dispensaries)

**Pasadena:** Protected youth by prohibiting promotions and coupons offering discounted cannabis (along with 4 others)

**West Hollywood:** Protected consumers by requiring cannabis-related health and safety training of dispensary staff (Long Beach, Pasadena, Mt. Shasta, Mammoth Lakes and Mono)

**Santa Ana:** Informed consumers by requiring cannabis-related health risks information on signs or in handouts in dispensaries (along with 23 others, including San Francisco, San Jose, Culver City & Richmond)



# **Supporting Documents #6.pdf**

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Original Investigation | Public Health

# Assessment of Incorporation of Lessons From Tobacco Control in City and County Laws Regulating Legal Marijuana in California

Lynn D. Silver, MD, MPH; Amanda Z. Naprawa, JD, MPH; Alisa A. Padon, PhD

## Abstract

**IMPORTANCE** As marijuana continues to be legalized in many states, little is known about best regulatory practice, exposing the population to significant potential harm.

**OBJECTIVE** To assess the extent to which potential best practices, including those from tobacco control, were incorporated into state and local marijuana policies in California.

**DESIGN AND SETTING** California legalized medical marijuana in 1996 and adult recreational use in 2016, effective in January 2018. A cross-sectional study with data collection and analysis from February 1 to November 30, 2019, measured the adoption of potential demand reduction and youth protection best practices, including restrictions on sales, products, marketing, warnings, and taxation. Laws in effect by January 31, 2019, were verified and all 539 California local jurisdictions were studied.

**MAIN OUTCOMES AND MEASURES** Adoption of potential best practices in marijuana laws for demand reduction and youth protection.

**RESULTS** The laws of 534 of California's 539 jurisdictions (99%) were successfully identified; 263 of these 534 jurisdictions (49%) allowed any retail sale of marijuana, covering 57% of the state's population. More than one-third of jurisdictions allow sales of marijuana for adult recreational use (203 of 534 [38%]); of those, 122 allow storefront dispensaries and 81 allow sales by delivery only. A total of 257 of 534 jurisdictions (48%) allow medical sales. Of 147 jurisdictions allowing medical or adult use dispensaries, 93 (63%) limited the number of licenses, with a mean of 1 store for every 19 058 residents (range, 154-355 143). The state imposed no limits on number of dispensaries or deliverers. Forty-two jurisdictions increased the state-specified distances required between dispensaries and schools. Only 8 jurisdictions allowing retail sales imposed restrictions on products exceeding state regulations; 1 prohibited sale of flavored products, 3 prohibited sale of marijuana-infused beverages, and 5 imposed additional restrictions on edible marijuana products. No jurisdictions limited potency of products sold, although 1 established a potency-linked tax. The state did not limit or tax potency, except for establishing a standard 10-mg dose of tetrahydrocannabinol for edible marijuana products, nor did they limit manufacturing or sale of flavored products. The state required only a health warning in 6-point font on packages. Twenty-seven jurisdictions required additional health warnings in stores or on packages, 27 allowed onsite consumption of marijuana products, and 13 allowed marijuana-related events. More than half of jurisdictions legalizing any cannabis commerce (154 of 289 [53%]) did not tax marijuana locally and little revenue was captured for prevention. Much of the state excise and cultivation taxes is slated for youth substance use prevention and treatment.

**CONCLUSIONS AND RELEVANCE** In implementing legalization of marijuana in California, local policies varied widely. Where marijuana was legalized, many lessons from tobacco control to reduce

## Key Points

**Question** What legal limits have cities and counties adopted since California legalized marijuana use for adults, and to what extent do these legal limits incorporate public health recommendations and lessons from tobacco control?

**Findings** This cross-sectional study of all 539 California cities and counties found that jurisdictions differed widely in how they regulated marijuana and that key public health recommendations and lessons from tobacco control have generally not been adopted, although local innovation is emerging.

**Meaning** Jurisdictions undergoing marijuana legalization may need to consider incorporating policy lessons from control of other legal but harmful products to reduce potential future burden of harm.

Author affiliations and article information are listed at the end of this article.

(continued)

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Abstract (continued)

demand, limit harm, and prevent youth use were not adopted, potentially creating greater risk of harm.

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## Introduction

Marijuana continues to be legalized in many states, generally with limited public health input. Although valid medicinal applications exist, the National Academies of Science, Engineering, and Medicine concluded that substantial evidence suggests that marijuana use is also associated with significant harms, including psychosis, schizophrenia, problem marijuana use, motor vehicle collisions, low birth weight, and respiratory symptoms.<sup>1</sup> Evidence is emerging regarding the association of marijuana use with youths' cognition<sup>2,3</sup> and cardiovascular disease,<sup>4-6</sup> as well as other areas, and the 2019 vaping epidemic demonstrated the hazards of rapid product innovation without due evaluation of safety.<sup>7</sup> With widespread lifetime and adolescent use of marijuana, reaching 43.6% of 12th-grade students nationally,<sup>8</sup> and 51.5% of 18- to 25-year-olds in 2018,<sup>9</sup> even modest increases in risk may have a significant effect on population health. Vaping of marijuana in the past 30 days, which typically involves high-potency concentrates, increased from 5% of 12th-grade students in 2017 to 14% in 2019, with 3.5% vaping near daily in 2019.<sup>10</sup> The potential magnitude of mental health effects associated with the growing market of high-potency marijuana products is evidenced by estimates of the population-attributable fraction of first-episode psychosis due to use of high-potency marijuana (>10% tetrahydrocannabinol [THC]) at 12% (range, 1.9%-50.3%) in 11 primarily European cities studied, and by elevated risk for first-episode psychosis found in individuals using these products daily.<sup>11</sup> Treatment data also suggest reason for concern. In 2014, marijuana was the leading drug used by clients entering drug treatment in a study of 22 European countries, representing 46% of all new clients, up from 29% in 2003.<sup>12</sup> Both marijuana-related new clients and daily users in treatment more than doubled between 2003 and 2014.

Prior to legalization of adult use of marijuana in California, as legalization advanced nationally, identification of key policy concerns and calls for caution emerged. Barry and Glantz recommended that "to protect public health, marijuana should be treated like tobacco, legal but subject to a robust demand reduction program modeled on evidence-based tobacco control programs before a large industry (akin to tobacco) develops and takes control of the market and regulatory environment."<sup>13(p2)</sup> Authors noted that the transition from small-scale marijuana growers and retailers to large-scale industrial consolidation and marketing would bring risks, including aggressive lobbying, campaign contributions, and efforts to create favorable regulation. Richter and Levy<sup>14</sup> noted the parallels between modern trends in marijuana product diversification and past transformations of tobacco to a deadly industrialized product designed to boost nicotine delivery and enhance addictive potential and palatability. Volkow et al at the National Institutes of Health raised concerns over the potential effects of rising product potency and of use on the developing brain.<sup>15</sup> Subsequently, in 2019, Ayers et al<sup>16</sup> called attention to emerging patterns of marijuana branding, marketing health claims, lack of health warnings, and appeals to youths and called for federal regulation. California's tobacco control oversight experts called for broad application of lessons learned from tobacco control to commercial marijuana.<sup>17</sup> Others called for legalization processes to intentionally advance social equity through criminal justice policy, offering economic opportunity to communities hard hit by the war on drugs, and reinvesting revenues in those communities.<sup>18</sup>

In November 2016, a California ballot initiative, Proposition 64,<sup>19</sup> successfully legalized production and sale of marijuana for adult use, 20 years after legalization of medicinal use of marijuana in the state. An important part of that initiative was the assurance that local control would be preserved and cities and counties would have broad discretion to allow legal marijuana

commerce, or not, and to regulate its practice. Decriminalization of possession of allowable quantities of marijuana was assured statewide. In 2017 and 2018, the state created a regulatory framework for legal cultivation, manufacturing, and retailing of marijuana, which generally prioritized facilitating the shift from the illegal market to the legal market rather than demand reduction strategies.

The first legal marijuana dispensaries for adult use in California opened January 2018. Three marijuana industry behaviors—extensive increases in potency (percentage of THC in products), manufacturing of products to attract youths, and aggressive marketing—that were directly adopted from tobacco industry practices became immediately evident across the state. Despite the threat to public health, state regulations failed to constrain these practices, even though California has led tobacco control efforts in the United States and pioneered tobacco control policies such as public smoking bans, flavored product bans, and electronic cigarette bans.

Cities and counties are often “laboratories” of innovation in public policy, and, notably, in tobacco control. Because California law allowed significant local control, we therefore asked: To what extent have recommendations from the public health community and potential lessons from tobacco control and other legal, but harmful, products been adopted in the marijuana legalization process?

---

## Methods

In a cross-sectional study with data collection and analysis from February 1 to November 30, 2019, we studied laws and regulations in California to understand the extent to which public health recommendations and tobacco control best practices, and in some cases, alcohol control best practices with evidence of effectiveness and potential relevance, had been incorporated into marijuana legislation by January 31, 2019. We followed the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) reporting guideline. The jurisdiction law review reported here was determined not to be human participant research by the Public Health Institute Institutional Review Board.

### Identification of Potential Best Practices

Selected practices were identified during an earlier literature review and national consultation with 62 stakeholders during key informant interviews conducted from 2017 to 2019 with experts in marijuana, tobacco, and alcohol regulation, the First Amendment, tobacco and alcohol law, local government, community organizing, criminal justice, and substance abuse and marijuana research, as well as marijuana industry participants. Collectively, the results of these interviews informed production of 2017 model ordinances for marijuana retailing, marketing, and taxation for California local government.<sup>20,21</sup> Potential best practices identified included restrictions on retail outlets, buffer zones, certain product types, delivery, marketing, and conflicts of interest, as well as requiring preservation of smoke-free air, health warnings, pricing and taxation measures, and equity policies in licensing, hiring, and revenue capture.<sup>17,18,22-27</sup> Although only practices considered legally defensible were recommended, descriptions of local measures were collected regardless of whether they went beyond recommendations (eg, bans on television and radio advertising).

### Verification of Laws

Local laws of 539 California cities and counties were verified using the CannaRegs commercial database, complemented by verification on jurisdictions' websites and the Municode database of municipal law. When status remained unclear, city or county clerks were contacted directly. Because San Francisco is both a city and a county, it was counted only as a county, leaving a denominator of 539 jurisdictions: 58 counties and 481 cities. Laws passed through January 31, 2019, were included. State law and regulation was verified through the state cannabis portal.<sup>28</sup> Random samples of cities (5%) and counties (10%) were iteratively coded by 2 independent coders (A.Z.N. and A.A.P.) and tested for interrater reliability, which reached 97% agreement. Remaining jurisdictions were coded

by a single public health lawyer (A.Z.N.). Laws were coded as affirmatively allowed, affirmatively prohibited, or silent, which meant state law would apply, except in the cases of onsite consumption and temporary events that require affirmative local allowance.

### Statistical Analysis

Independent-samples t tests were conducted to compare differences in legalization between cities and counties, and by population size, assuming unequal variances. All P values were from 2-sided tests and results were deemed statistically significant at  $P < .05$ . Analyses were performed using Stata, version 15.1 (Stata Corp).<sup>29</sup>

## Results

### Retail Sales

The marijuana laws of 534 (99%) of California's 539 cities and counties were successfully identified. Of these 534 jurisdictions, 263 (49%) allowed any retail sale of marijuana, either medical and/or adult use, covering 57% of the state's population. More than one-third of jurisdictions (203 of 534 [38%]) allowed adult-use sales of marijuana; of those, 122 allowed storefront dispensaries and 81 allowed sales by delivery only. Nearly half of jurisdictions (257 of 534 [48%]) allowed medical sales (Table 1). The state allows both medical and adult-use sales unless locally prohibited. Cities were significantly less likely than counties, whose laws apply only to their unincorporated areas in California, to have legalized any marijuana retail (227 of 476 [48%] vs 36 of 58 [62%];  $P = .04$ ) and were significantly less likely to have legalized any adult-use retail (172 of 476 [36%] vs 31 of 58 [53%];  $P = .01$ ). Jurisdictions that had legalized any marijuana retail activities were more populous (mean [SD], 85 740 [283 718]) compared with jurisdictions that had not legalized marijuana retail activities (mean [SD], 63 782 [91 798]), but this difference was not significant ( $P = .23$ ).

Table 1. Commercial Marijuana Activities Allowed in California Cities and Counties as of January 2019<sup>a</sup>

Activity type	No. (%)			
	Medical and adult use allowed	Adult use banned, medical use only allowed	Medical use banned, adult use only allowed	Neither medical nor adult use allowed
<b>Cities (n = 476)</b>				
<b>Retail</b>				
Storefront	97 (20)	22 (5)	7 (2)	350 (74)
Delivery	155 (33)	55 (12)	3 (1)	263 (55)
Any form	166 (35)	55 (12)	6 (1)	249 (52)
Cultivation	125 (26)	14 (3)	3 (1)	335 (70)
Manufacturing	135 (28)	17 (4)	1 (0.2)	324 (68)
<b>Counties (unincorporated area) (n = 58)</b>				
<b>Retail</b>				
Storefront	18 (31)	3 (5)	0	37 (64)
Delivery	30 (52)	5 (9)	0	23 (40)
Any form	31 (54)	5 (9)	0	22 (38)
Cultivation	22 (38)	3 (5)	2 (4)	31 (54)
Manufacturing	23 (40)	0	1 (2)	34 (59)
<b>All cities and counties (n = 534)</b>				
<b>Retail</b>				
Storefront	115 (22)	25 (5)	7 (1)	387 (73)
Delivery	185 (35)	60 (11)	3 (1)	286 (54)
Any form	197 (37)	60 (11)	6 (1)	271 (51)
Cultivation	146 (27)	17 (3)	5 (1)	366 (69)
Manufacturing	157 (29)	17 (3)	2 (0.4)	358 (67)

<sup>a</sup> Data include 58 counties and 476 cities; marijuana-related regulatory data could not be found for 5 of California's 481 cities. If a jurisdiction is silent then state law applies. The City and County of San Francisco were treated as a county. Although 51% of jurisdictions ban all retail activity, state regulation under judicial review allows delivery anywhere in the state.

### Location and Density of Retail Establishments

Of 147 jurisdictions allowing medical or adult use storefront commerce, 93 (63%) limited the number of dispensaries, with a mean of 1 store for every 19 058 residents (range, 154-355 143) (Table 2). The state imposed no limits on the number of dispensaries or delivery businesses that could be licensed. Forty-two jurisdictions imposed a buffer between retailers and schools greater than the state-required 600 feet, yet 6 jurisdictions allowed retailers to locate closer to schools than the state's requirement, at a mean of 258 feet. More than 100 jurisdictions added establishments to the state's list of "sensitive use" sites from which storefront dispensaries must be distanced, which consisted of kindergarten through grade 12 schools, day care centers, or youth centers. Locally adopted examples included colleges, public beaches, libraries, tutoring centers, and recreation centers. More than one-third of jurisdictions imposed buffers between retail locations, with a median of 600 feet.

### Equity in Licensing and Criminal Justice

Provisions to promote economic equity and diversity in marijuana licensing were limited to 5 of the largest cities. Oakland, Long Beach, and the city of Los Angeles gave a defined class of "equity" applicants priority in licensing and a reduction in certain costs, and required that certain percentages of employees be low-income, local, or transitional workers. Sacramento also had equity licensing priority and reduced costs, and San Francisco had equity licensing priority and employee requirements. The state did not establish an equity licensing system. Proposition 64 established the right to expunge certain past marijuana convictions, and state legislation subsequently approved a process for automatic expungement, reducing barriers for eligible individuals to benefit.<sup>30</sup>

### Restrictions on Allowable Marijuana Product Types for Sale

Among jurisdictions allowing retail sale, only 8 imposed restrictions on types of marijuana products for sale, beyond state regulations. One jurisdiction, Contra Costa County, pioneered the prohibition of sale of flavored products for combustion or inhalation, 3 jurisdictions (Pasadena, Mono County, and Chula Vista) prohibited the sale of marijuana-infused beverages resembling "alcopops"<sup>31</sup> (such as marijuana orange soda or iced tea), 5 jurisdictions restricted products appealing to youths, and 5

Table 2. Adoption of Potential Demand Reduction Best Practices in Marijuana Regulation in California Jurisdictions Allowing Any Retail Sale of Medical or Adult-Use Products as of January 2019

Regulatory practice <sup>a</sup>	No./total No. (%) <sup>b</sup>
Cap on dispensaries	93/147 (63)
Ratio of dispensaries to population, mean (range)	1:19 058 (1:154-1:355 143)
Buffers from schools >600 ft	42/147 (28)
Prohibited onsite consumption	
Banned	79/147 (54)
Silent <sup>c</sup>	41/147 (28)
Temporary events prohibited	17/263 (7)
Restrictions on products	8/263 (3)
Attractive to youth	5/263 (2)
Flavors	1/263 (0.4)
Beverages	3/263 (1)
Potency	0
Edible products	5/263 (2)
Price discounts prohibited	5/263 (2)
Minimum price required <sup>d</sup>	0
Any tax on retail	120/263 (46)
Size of retail tax gross receipts averaging adult use and medicinal, median (range), %	5 (0-15)
Any advertising restrictions	74/263 (29)
Any restrictions on health claims	4/263 (0.4)
Additional health warnings required	27/263 (10)

<sup>a</sup> These provisions refer to measures that go beyond state law.

<sup>b</sup> Denominator for cap on dispensaries, onsite consumption, and buffers consists of jurisdictions that allow any storefront retail sale (n = 147); denominator for all other variables consists of jurisdictions that allow any storefront and/or delivery retail sales (n = 263).

jurisdictions imposed restrictions on edible marijuana products beyond state regulations. No jurisdictions limited the potency of products sold, although 1 jurisdiction established a potency-linked tax. The state did not limit or tax potency, except for establishing a maximum 10-mg THC dose for edible marijuana products (100 mg total per package), nor did they limit manufacturing or sale of flavored products, such as flavored vaping liquids or prerolled cigarettes, although state regulations did create restrictions on products resembling existing foods or with characteristics that were particularly attractive to children.

### Health Warnings and Claims

Although the state required only a limited health warning in hard-to-read 6-point font on packages, whose text was defined in the ballot initiative, 23 jurisdictions required additional health warnings in stores and 4 jurisdictions required additional health warnings on packages. No jurisdiction required warnings on advertising. Although the state prohibited only misleading or unsubstantiated health claims, 1 county, Mono, prohibited all health-related claims on marijuana labels, any advertising or marketing, and in retailer names.

### Restrictions on Advertising

Seventy-four jurisdictions limited advertising in some way, primarily through limited business signage. Fourteen jurisdictions prohibited billboards and other outdoor advertising. Five jurisdictions limited advertising on television, on the radio, online, or in print, and 5 jurisdictions prohibited advertisements attractive to youths more explicitly than the state's prohibition. The state did not require warnings on advertisements and used regulation to weaken Proposition 64's prohibition on billboards on state and interstate highways that cross state borders, limiting its application to roads within 15 miles of the state border.<sup>32</sup> State law does require that advertisements be 1000 feet from schools, daycare centers, playgrounds, or youth centers, and that advertising and marketing not be designed to appeal to underage consumers.

### Smoke-Free Air and Onsite Consumption

Twenty-seven jurisdictions allowed on-site consumption of marijuana in some form at retail locations, all of which allowed either smoking (24), vaping (27), or both (24) on the premises, 3 of which allow use by staff only. Thirteen jurisdictions explicitly established a permit system for marijuana-related temporary events, while 21 jurisdictions banned them and most jurisdictions were silent. The state allows both on-site consumption and marijuana-related temporary events if locally permitted. Although California laws prohibit smoking marijuana in most workplaces or in any place where smoking cigarettes is prohibited by law, these local exceptions are now in effect.

### Price and Taxation Measures

Of 289 jurisdictions legalizing any commercial marijuana activity (including retail, cultivation, or manufacturing), 154 (53%) did not tax marijuana activity locally; 119 (41%) passed a "general" tax, which in California is a tax that the governing authority can use for any purpose; 7 (2%) passed a general tax with an advisory committee guiding revenue use; 3 (1%) passed a tax that earmarked revenue, dedicated in different cases to police and law enforcement, fire services, parks and recreation, repairing city streets, or enhancing community centers; and 6 (2%) passed "fees." Cathedral City taxed the highest-potency marijuana concentrates, such as "shatter" (a brittle, glass-like high-potency concentrate), at 8 times the price of lower-potency products. Little local revenue was captured for prevention or reinvestment in low-income communities. Only 5 jurisdictions prohibited discounting, such as redemption of coupons, discount days, or other promotions, and none implemented a minimum price law, all of which are price policies that have been used in tobacco control. The state levied a 15% excise tax on retail sales in addition to a cultivation tax, much of which is slated for investment in prevention of substance use by youths and in communities but

did not constrain discounting other than prohibiting distribution of free products, nor did it create a floor price.

### Conflicts of Interest

Fifty-three jurisdictions added some form of prescriber conflict of interest rule, such as no marijuana prescribers may work as staff or be owners or employees in retail outlets. The state prohibited those involved in marijuana regulation, enforcement, or appeals from holding marijuana licenses or financial interest, and persons licensed for testing laboratories may not hold other marijuana licenses. Neither state nor local government prohibited those with marijuana financial interests from participation in advisory bodies, and such participation is occurring.

## Discussion

Our review reveals important gaps in the regulatory scheme for marijuana in California cities and counties. Many fundamental lessons from tobacco control to reduce demand, limit harm, and prevent marijuana use by youths have gone largely ignored, leaving state law setting the standard. Nevertheless, in communities that have opted to legalize marijuana, examples are emerging of local policy innovation for reducing demand and protecting youths. Limits on retail outlets are the most common. The first prohibition on flavored products was passed in 2018, as was the first ban on vaped marijuana later in 2019. However, limitations of high-potency or flavored marijuana product types, industry practices associated with risk of addiction and psychosis, and risk of youth initiation have received little local attention. Most state residents are exposed to aggressive marketing practices such as prominent billboards promoting marijuana use. They are not informed by clear and salient health warnings such as those used on marijuana products in Canada or tobacco products in the United States. Local onsite consumption permits have been associated with smoke-filled lounges and outdoor marijuana events, such as legal sales at concerts, fairs, or park events, which may threaten decades of progress in smoke-free workplaces and outdoor air.

State laws and regulations neglected to limit retail outlets. State, like local, provisions on marketing and advertising are relatively weak, even when taking into account protections on commercial speech. The state does tax and invests some tax revenue in prevention of substance use and other community-based investments. State law and regulation does not restrict manufacturing or sale of flavored products—a well-recognized industry strategy to attract youths—despite promoting a large-scale “Flavors Hook Kids” campaign for tobacco products in the same time period.<sup>33</sup> It allowed products of any potency, even those with more than 90% THC, as well as marijuana-infused sodas mimicking “alcopops” and a wide range of edible marijuana products. The entire legal marijuana market is being permitted by state and local regulators to shift to high-potency flower and concentrates in California and elsewhere.<sup>34,35</sup> Similar manipulation of nicotine content to increase addiction was a tobacco industry strategy condemned in the landmark 2006 decision *US v Philip Morris*.<sup>36</sup> This strategy has permitted, for example, even products such as a grape-flavored vaping cartridge in a hot pink memory stick-like device, with the equivalent of 78 unmeted “standard” 5-mg THC doses<sup>37</sup> in 1/50th of 1 ounce (78% THC or 392 mg) to be sold legally. These, like flavored electronic cigarettes, may increase the risk of addiction in youths.

Many California communities reacted to legalization of marijuana by delaying or rejecting local commercial activity. The state then partially overrode voter-approved Proposition 64 guarantees of local control, promulgating regulation allowing any delivery licensee to deliver marijuana products anywhere in the state.<sup>38</sup> This measure was challenged by local government and continues in the courts. These conflicts may reflect disparate visions for legalization: one prioritizing industry growth, revenue, and elimination of illicit sales; a second rejecting legalization or wishing it to occur elsewhere; and a third allowing legal commerce but prioritizing public health and demand reduction.



## Strengths and Limitations

This study has certain strengths, including the near-complete coverage of California jurisdictions, as well as providing the first snapshot of California local law. Findings are also consistent with recent work on local policy in Washington state.<sup>39</sup>

Nevertheless, limitations should also be noted. This study describes local regulations 1 year after adult-use sales of marijuana began. Regulation continues to evolve, and we will assess change annually. Second, we examined only local marijuana laws. Other local laws addressing issues such as zoning, advertising, or smoke-free air may include relevant provisions such as global bans on billboards that were not captured. Frameworks for legalization and local control vary widely between states, and these findings cannot be generalized. However, the concerns identified and potential best practices may be broadly relevant for national, state, and local marijuana regulation, even where local authority for adoption is absent. Importantly, the fundamental questions of whether legalization leads to net public health benefit or harm and whether these "best practices" work remain unanswered. These early descriptive data provide a valuable basis for future research on health and social outcomes in association with variations in the rigor or laxity of local policy after state legalization.

## Conclusions

In California, the nation's largest state, policy lessons from tobacco control and other legal, but harmful, products went largely unheeded by cities and counties. Policy evaluation research is needed to understand the effects on health of regulatory paths taken. As the legal marijuana industry consolidates and its power expands, communities may wish to consider precautionary incorporation of these policy lessons into marijuana regulation from the start, potentially reducing risk of failing in our responsibility to protect youths and health for decades to come.<sup>13</sup>

## ARTICLE INFORMATION

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## HEALTH CARE

### **Pot is making people sick. Congress is playing catch-up.**

Now that a growing body of evidence says marijuana is bad for you, more regulation is in the offing.



Recently a steady flow of data has emerged on the health impacts of marijuana, including emphysema in smokers and learning delays in adolescents. | Bruce Bennett/Getty Images

By **BEN LEONARD**

02/06/2023 05:30 AM EST



When Gallup asked about legalizing weed last year, two-thirds of Americans supported it — up from 12 percent when the pollster first asked in 1969.

Recognition of marijuana's medical benefits, the harms of punitive drug policies, and the prospect of new tax revenue to fund popular services, have driven that change in attitudes and led 21 states to legalize recreational sales.

Even some of those most supportive of legalization, such as the co-chairs of the Congressional Cannabis Caucus, Reps. Earl Blumenauer (D-Ore.) and Dave Joyce (R-Ohio), are calling for more regulation and better oversight.

“One of the reasons I have fought so hard to be able to legalize, regulate and tax is because I want to keep this out of the hands of young people. It has proven negative consequences for the developing mind,” said Blumenauer, Capitol Hill’s unofficial cannabis czar.

Last year, he and Joyce teamed on legislation, since enacted, to ease federal restrictions on researching cannabis for medical purposes and on growing marijuana for research.

That could significantly improve understanding of the drug.

They’re now talking about standards on dosing, mandates for childproof containers for edibles, and advertising restrictions aimed at protecting children. They’re also concerned about high potency cannabis and its effects.

Federal agencies are also taking action. The FDA recently rejected applications from companies making products out of cannabis who were seeking regulation under the loose standards governing dietary supplements.

The agency said that the use of cannabidiol, or CBD, an active ingredient of cannabis, poses safety risks and that Congress needs to bolster safeguards to mitigate risk.

“We have not found adequate evidence to determine how much CBD can be consumed, and for how long, before causing harm,” said Principal Deputy Commissioner Janet Woodcock in a statement.

Despite its history, there hasn’t been much health research on pot until recently, said Giselle Revah, an assistant professor at the University of Ottawa whose research last year in the journal *Radiology* linked marijuana smoking to the lung condition emphysema.



Pediatric edible poisonings in the U.S. have grown from 207 in 2017 to 3,054 in 2021, according to federal data, and states legalizing cannabis like Colorado have seen a bigger increase in hospitalizations and poison control visits than other states. | David Zalubowski/AP Photo

Before her study, Revah said, “what was in the literature was extremely limited” because “it’s very hard to study something that’s illegal.”

But recently, in addition to Revah’s work, new scientific studies have uncovered evidence of a rise in children accidentally ingesting edibles, a slight uptick in teenagers getting asthma in states legalizing marijuana, and growing rates of simultaneous use of alcohol and marijuana among young adults.

## Sea change

With public opinion turning pro-legalization, 21 states have moved to permit its use for medical reasons or for recreation. A further 16 allow medical marijuana.

And marijuana use is becoming much more common.

On the current trajectory tracked by the Substance Abuse and Mental Health Services Administration, more Americans will use marijuana in 2030 than use

Researchers are only beginning to examine the data on how this massive increase in use is affecting public health.

As states have opened up cannabis laws, pediatric edible poisonings in the U.S. have grown from 207 in 2017 to 3,054 in 2021, according to federal data, and states legalizing cannabis like Colorado have seen a bigger increase in hospitalizations and poison control visits than other states.

Pre-proof research from late December found that legalization of cannabis for recreational use could be contributing to an increase in asthma among teens.

The researchers found that from 2011 to 2019, teenagers in states that legalized recreational cannabis saw a “slight” uptick in asthma rates in kids ages 12 to 17 compared with states in which cannabis remained illegal. The team, from the City University of New York, Columbia University, the University of California San Diego and others, also found an increase in asthma among children in some racial and ethnic groups.

Renee Goodwin, an adjunct associate professor at Columbia’s Mailman School of Public Health, said it could be a sign of the downstream effects of legalization. Parents could be smoking more in the home, exposing kids to second-hand smoke, she said.



“You’ve got these sweeping, very rapid changes in policy and there’s no science to inform them,” Goodwin said. “Ideally, there would be at least accompanying clinical guidelines for clinicians to advise parents.”

The mental health impacts of using cannabis aren’t yet clear, though some studies have linked it to increased risk of depression and suicide.

“We really have to slow down,” said Leana Wen, George Washington University public health professor and former Baltimore health commissioner. “We’re getting so far ahead of where the research is.”

In a Washington Post column last year, Wen detailed “abundant research” that she said demonstrated “how exposure to marijuana during childhood impacts later cognitive ability, including memory, attention, motivation and learning.”

Marijuana legalization also coincides with an increase in driving-while-high.

The percentage of driving deaths involving cannabis has more than doubled from 2000 to 2018, according to a 2021 study in the American Journal of Public Health.



"One of the reasons I have fought so hard to be able to legalize, regulate and tax is because I want to keep this out of the hands of young people," says Congressional Cannabis Caucus co-chair Earl Blumenauer. | Tasos Katopodis/Getty Images

The National Highway Traffic Safety Administration is running an ad campaign to combat that increase.

Research published last month found that pediatric poisonings were much higher in Canadian provinces where edible sales are legal compared with a

Advertisement

Canada's rise came in spite of child-resistant packaging and THC content restrictions, said Daniel Myran, lead author of the study and fellow at the Ottawa Hospital Research Institute.

"It suggests that if you put cannabis into candy or chocolate, you're going to see an increase in these poisonings," Myran said. "It's a question for regulators — do you need this product form? Can adult consumers get the choice and the option to purchase a legal cannabis product that doesn't have to appeal this strongly to young kids?"

## **The policy response**

Questions like that are raising the prospect of more regulation.

The FDA called on Congress last month to create a new regulatory pathway for CBD, including labeling, content limits and a minimum purchase age to help

avoid harm to the liver, interactions with medications and damage to men’s reproductive systems.

Blumenauer and Joyce both say they plan to push for childproof packaging and rules to standardize dosing.

“Consumers need to be able to know how much THC is in the products they are consuming, as opposed to the unregulated market we are currently facing which makes it nearly impossible to know,” Blumenauer said.

That’s something public health advocates support. But many in the public health world are frustrated that policymakers eager to get on with legalization missed the opportunity to mitigate the consequences in advance.

“We’re in a massive natural experiment,” said David Jernigan, professor of health law, policy and management at Boston University School of Public Health. “Are we learning the lessons from alcohol, tobacco and other drugs when we go to regulate cannabis?” Jernigan asked. “Absolutely not.”

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# Vaping & Marijuana Concentrates

## WHAT ARE MARIJUANA CONCENTRATES?

A marijuana concentrate is a highly potent concentrated form of THC (tetrahydrocannabinol) that is most similar in appearance to either honey or butter, and commonly referred to or known on the street as “honey oil” or “budder.”

## WHAT IS ITS ORIGIN?

Marijuana concentrates contain extraordinarily high THC levels that could range from 40 to 80 percent. This form of marijuana can be up to four times higher in THC content than high grade or top shelf marijuana, which normally measures around 20 percent THC levels.

Many methods are utilized to convert or “manufacture” marijuana into marijuana concentrates. One method is the butane extraction process. This process is particularly dangerous because it uses highly flammable butane to extract the THC from the cannabis plant. Given the flammable nature of butane, this

process has resulted in violent explosions. THC extraction labs are being reported nationwide, particularly in the western states and in states where local and state marijuana laws are more relaxed.

## What are common street names?

Common street names include:

- 710 (the word “OIL” flipped and spelled backwards), wax, ear wax, honey oil, budder, butane hash oil, butane honey oil (BHO), shatter, dabs (dabbing), black glass, and errl.

## What does it look like?

Marijuana concentrates are similar in appearance to honey or butter and are either brown or gold in color

## How is it used?

Marijuana concentrates can be mixed with various food or drink products to be consumed orally; however, smoking remains the most popular route of administration by use of water or oil pipes. A disturbing aspect of this emerging threat is the inhalation of concentrates via electronic cigarettes (also known as e-cigarettes) or vaporizers. Many marijuana concentrate users prefer the e-cigarette/vaporizer because it is smokeless, sometimes odorless, and easy to hide or conceal. The user takes a small amount of marijuana concentrate, referred to as a “dab,” then heats the substance using the e-cigarette/vaporizer producing vapors that ensures an instant “high” effect upon the user. Using an e-cigarette/vaporizer to inhale marijuana concentrates is commonly referred to as “dabbing” or “vaping.”



*Marijuana concentrate*  
Image by Erik Fenderson

## What are the Effects of Using Marijuana Concentrates?

Being a highly concentrated form of marijuana, the effects upon the user may be more psychologically and physically intense than plant marijuana use. To date, long term effects of marijuana concentrate use are not yet fully known; but, the effects of marijuana use are known.

These effects include:

- paranoia, anxiety, panic attacks, and hallucinations. Additionally, the use of plant marijuana increases one's heart rate and blood pressure, although prolonged use can produce hypotension. Plant marijuana users may also experience withdrawal and addiction problems.

## What is Vaping?

Vaping is the act of inhaling and exhaling an aerosol or vapor made from a liquid or dry material that is heated in an electronic powered device, called an electronic cigarette, or e-cigarette. The liquid can contain flavoring, nicotine, or marijuana concentrates. Dry herb vape devices can heat dry marijuana without combusting it and without using additional liquid. Generally, the vaping device consists of a battery, a cartridge for containing the e-liquid or dry marijuana, and a heating component.

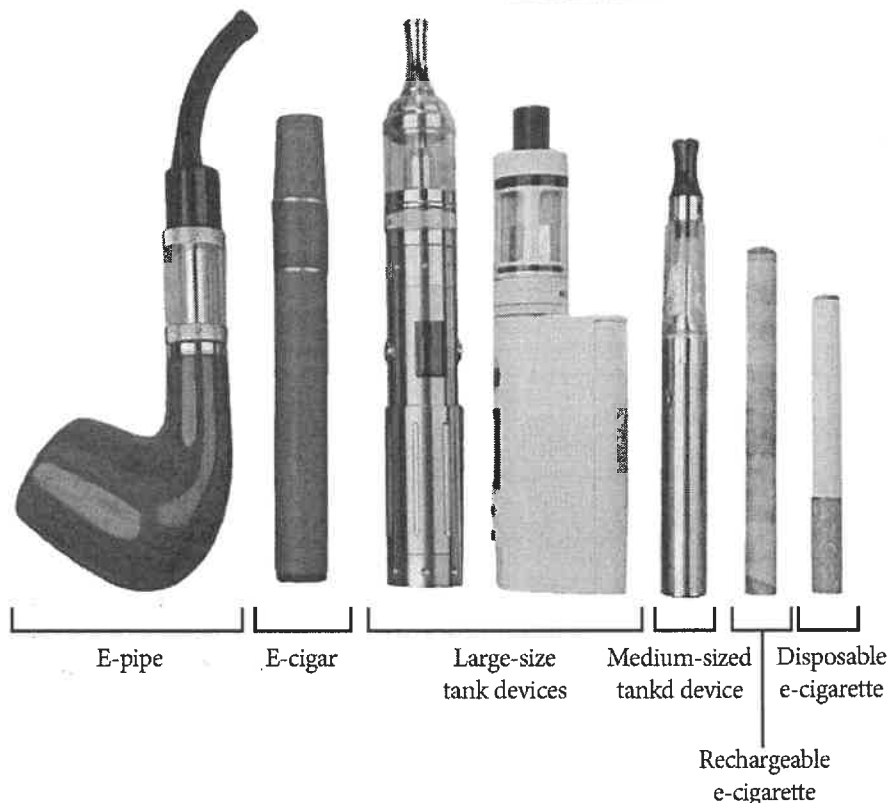
Vaping devices come in a variety of shapes and sizes, with some resembling USB flash drives, pens, or other everyday objects that are often difficult for parents and teachers to recognize.

## What are common street names?

- Common street names include: E-cigs, e-hookahs, mods, vape pens, vapes, tank systems, and Juuls or Juuling (after the Juul brand of vaping devices).

## What are the effects of vaping?

Vaping is not considered safe, especially for teens and young adults, since the adolescent brain is still developing and inhaling any substance through these devices may be harmful. Additionally, some devices might explode, resulting in burns and other injuries. Most vaping devices contain and release a number of potentially toxic substances including metals and volatile organic compounds from the devices and solvents used. Some of these have been linked to cell and DNA damage.



Source: National Academies of Sciences, Engineering, and Medicine, 2018. *Public Health Consequences of E-Cigarettes*.



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## Cannabis vaping: Understanding the health risks of a rapidly emerging trend

Nicholas Chadi, MD MPH,<sup>1</sup> [Claudia Minato](#),<sup>2</sup> and [Richard Stanwick](#), MD MSc<sup>3,4</sup>

### Abstract

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The rapid emergence of youth vaping has completely changed the landscape of adolescent substance use in Canada and has become a pressing public health issue of our time. While nicotine remains the most common substance encountered in vaping devices, cannabis vaping is now reported by one-third of youth who vape. Though cannabis vaping is thought to generate fewer toxic emissions than cannabis smoking, it has been associated with several cases of acute lung injury and often involves high-potency forms of cannabis, exposing youth to several acute and long-term health risks. The low perceived riskiness of cannabis as a substance and of vaping as a mode of consumption may bring a false sense of security and be particularly appealing for youth who may be looking for a ‘healthier way’ to use substances. While research is still lacking on how best to support youth who may have already initiated cannabis vaping, concerted efforts among paediatric providers, public health experts, schools, communities, and families are urgently needed to limit the spread of cannabis vaping among Canadian youth.

**Keywords:** *Adolescent, Cannabis, Health risk behavior, Injury, Substance related disorder, Vaping*

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The risks of vaping for children and youth were forecasted in a 2015 statement from the Canadian Paediatric Society but the rapidity of uptake of this method of consumption was clearly underestimated (1). While rates of tobacco use in North America have been decreasing steadily and rates of cannabis use among youth under age 18 have trended downwards since the turn of the century, nicotine and cannabis vaping have seen unprecedented increases in popularity among youth in the span of less than a decade (2–4). Nicotine vaping remains more common than cannabis vaping; yet, the overlap between those two substances is significant. In Canada, one-third of adolescents who report e-cigarette use also report using their vaping device to consume cannabis (5).

Youth-friendly designs, aggressive marketing by e-cigarette and cannabis companies, increased access due to legalization, and low perceived riskiness are only some of the factors that may have led to such a rapid increase in popularity of cannabis vaping among youth. Of concern, youth who vape cannabis are at risk of developing e-cigarette or vaping-associated lung injuries (EVALI) (6) and often use very high-potency products, which may lead to more severe health consequences than the use of other forms of cannabis (7).

Cannabis vaping has become one of the most popular modes of cannabis consumption among youth. In this article, we describe cannabis vaping trends and products, discuss some of the specific health risks and youth perceptions of cannabis vaping, and present key clinical considerations for paediatric providers.

## EPIDEMIOLOGY

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Steady increases in cannabis vaping, which mirror rapid increases in rates of e-cigarette use among youth, have been noted across North America. Although combustible cannabis (i.e., smoked as a joint or using a pipe) remains the most common mode of cannabis consumption among teens (6), cannabis vaping is becoming more and more common among youth. In Canada, the use of vape pens increased from 20% to 26% among adolescents and young adults with cannabis use between 2017 and 2018 (8). Data from Ontario also shows an increase in the proportion of high-school students (grades 9 to 12) who reported cannabis vaping in the past 12 months from 5.1% in 2015 to 6.9% in 2017 (4). Similar trends have been reported in the USA, where lifetime cannabis vaping increased from 4.9% to 7.5% among grade 12 students, 4.3% to 7.0% among grade 10 students, and 1.6% to 2.6% among grade 8 students between 2017 and 2018 alone (9). A recent online survey also found that 44% of American adolescents who had tried cannabis had tried cannabis vaping (10).

According to a recent meta-analysis, use of nicotine containing e-cigarettes increases the odds of cannabis use 3.5-fold among adolescents and young adults, suggesting a strong association between the two substances (11). While nicotine vaping remains more common than cannabis vaping, the boundaries between the two substances appear to be thinning. Importantly, cannabis vaping has been associated with increased amounts of cannabis consumed when compared with other modes of consumption (12).

## VAPING PRODUCTS

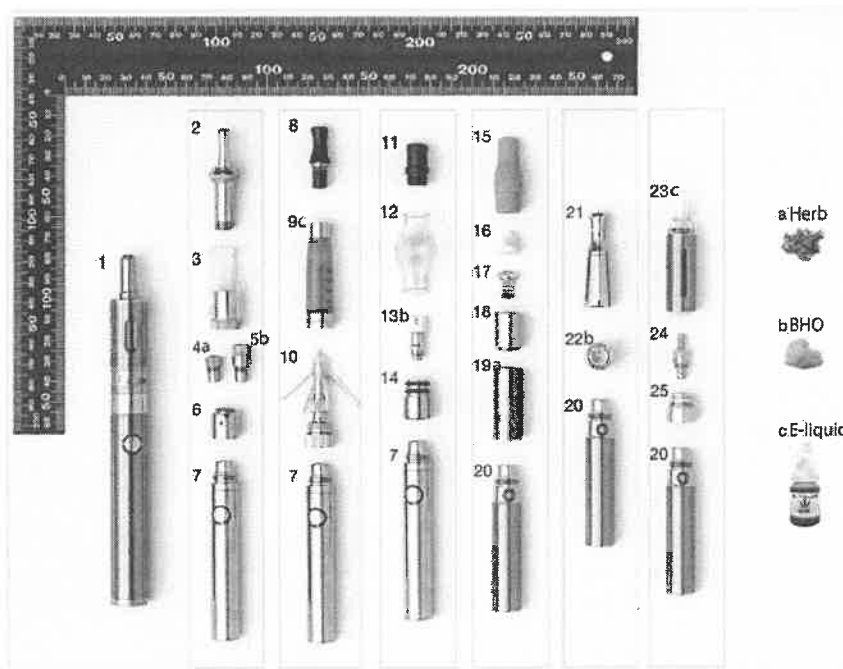
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Cannabis vaping devices come in a wide range of shapes, sizes and designs. They can generally be divided into two categories: dab pens and vaporizers. Dab pens are typically the size of a highlighter and are used exclusively with cannabis concentrates (called dabs) created through butane extraction. This concentrate, referred to as butane hash oil, or butane honey oil (BHO), can take several forms,



from a thick liquid to a firm, almost glassy solid. Dabs are referred to by several colloquial terms such as ‘budder’, ‘earwax’, ‘honeycomb’ or ‘shatter’ among others (13). Vaporizers, on the other hand, vary more in terms of size (ranging from small flash-drive-like devices to larger tank-like devices) and can be used with either cannabis concentrates or dried or liquid forms of cannabis (14). Mechanisms for both types of devices usually include a small battery, a heating element, a vaporization chamber, a cartridge or reservoir and a mouthpiece. The vaporization process involves heating the desired substance, producing an aerosol, which is then inhaled and absorbed systemically through the respiratory system (14).

Cannabis vaping devices share many similarities with e-cigarettes and other nicotine vaping devices. Specifically, e-cigarettes that come with prefilled liquid cartridges (referred to as ‘pod-mods’, which can contain nicotine and/or cannabis), make it very simple for adolescents to try vaping one substance or the other (15). Vaporizers and e-cigarettes can also be used to consume other psychoactive substances such as synthetic cannabis (i.e., K2/‘spice’), LSD, and bath salts (16). Examples of cannabis vaping devices and their different parts are shown in [Figure 1](#).



**Figure 1.**

Examples of cannabis vaping devices and their different parts. Some models of vaping devices for use with (a) ground marijuana head tops; (b) cannabis wax (butane honey oil [BHO] concentrate), or (c) cannabis e-liquid. The letters a, b, or c after the numbers indicate the parts of the vaping devices used for herb, BHO, or e-liquid vaping, respectively. 1. Mega electronic cigarette (e-cig) with dual-coil clearomizer, adjustable airflow control ring, changeable resistance coils and high capacity, variable voltage battery. 2–7. Dry herb and wax vaporizer: 2. Spring-loaded mouthpiece; 3. Vaporizer chamber; 4. Dry herb coil head; 5. Wax coil head; 6. Detachable base with air holes; 7. Medium capacity battery. 8–10. See-through clearomizer for e-liquids: 8. Clearomizer tip; 9. Clearomizer tube; 10. Clearomizer coil and four-wick head with base assembly. 11–14. Glass-globe atomizer wax tank: 11. Drip tip; 12. Glass globe; 13. Ceramic heating chamber and coil; 14. Metal core. 15–19. Dry herb atomizer: 15. Soft drip tip (mouthpiece); 16. Ceramic screen; 17. Metal screen and spring; 18. Screens connector; 19. Ceramic chamber and battery connector. 20. Medium size battery. 21–22. Wax coil head atomizer: 21. Metal mouthpiece and wax coil chamber connector; 22. Wax coil ceramic chamber and battery connector. 23–25. Clearomizer for e-liquids: 23. Shell (mouthpiece attached to metal tank with viewing window); 24. Bottom head changeable coil assembly; 25. Battery base connector. a. Marijuana head tops, b. Cannabis BHO concentrate, c. Cannabis e-liquid (mixture of cannabinoid concentrates (cannabis wax), propylene glycol and glycerol). Source: see ref. (40).

## HEALTH EFFECTS OF CANNABIS VAPING

Studies suggest that vaporized cannabis may generate fewer chemicals than smoked cannabis and could thus represent a less harmful, or ‘healthier’ mode of consumption (17). However, the use of high-potency concentrates, like those found in vape pens also correlates with a higher incidence of mental and physical health problems and may lead to a higher risk of developing acute adverse effects, such as paranoia, psychosis, and cannabis hyperemesis syndrome (18). In addition, there is a lack of evidence comparing long-term effects on lung health of smoked versus vaporized cannabis. In fact, while some vaporizers and vape pens can be used with relatively unprocessed cannabis leaves, buds, or flower, many vaping devices use highly processed products whose safety and chemical profile are much closer to that of e-liquids used in e-cigarettes. This is especially true of flavoured cannabis vaping products which may contain several harmful and carcinogenic aerosols (19). While there is still much to be discovered about the short- and long-term effects of these aerosols on the developing adolescent’s lungs, the significant presence of carbonyls, volatile organics, nitrosamines, and heavy metals, all considered toxic and carcinogenic, found in several vaping products, is a reason for concern (20,21).

In recent months, several hundreds of cases of EVALI have been reported in Canada and the USA (6). Most patients diagnosed with EVALI present with severe respiratory symptoms (cough, chest pain, shortness of breath), gastro-intestinal symptoms (abdominal pain, nausea, vomiting, diarrhea) and constitutional symptoms such as fever, chills, and weight loss. EVALI often affects adolescents and young adults with approximately 15% of cases diagnosed in youths under the age of 18 and 20% in youths ages 18 to 20 years (6). While a specific causal agent has not yet been identified, more than three-quarters of individuals diagnosed with EVALI reported vaping THC products, many of which were purchased from the black market (22).

Finally, vape pens and vaporizers present risks related to the device itself. Indeed, reports of injuries tied to the malfunction or explosion of vaping devices have been increasing (23,24). The risk of accidental poisoning in young children who may mistake cannabis vaping products for candies or toys is another important concern, knowing that several of these products come in colourful packages and youth-friendly flavours.

## PERCEIVED RISK

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The increase in popularity of cannabis vaping among youth likely stems from several factors. Low perceived risk is an important predictor of adolescent substance use and is perhaps one of the most important contributors (25). Vaping devices also tend to be considered more convenient and discreet in public and to have better taste, flavours, and smell than smoked cannabis (16).

Cannabis is considered by youth to be one of the least harmful psychoactive substances, in part because it is often perceived as more ‘natural’ than other substances (26). Young people also report higher levels of concentration, higher sense of clarity, and better communication skills when using cannabis, though when tested objectively, the opposite is most often found (27). The parallel emergence of legal

'medical' and 'recreational' cannabis markets raises new challenges in understanding adolescent perceptions of cannabis risks and potential benefits. Indeed, many youths interpret the long list of potential indications suggested by medical dispensaries and cannabis companies as a proof of safety and benefit, though evidence is lacking for most of these indications, even in adults (26). As such, the low perceived risk of vaping as a mode of consumption combined with a favourably perceived risk/benefit profile of cannabis as a substance present an appealing combination for youth who may be looking for a 'healthier' way to use substances.

Studies show a high correlation between vaping product advertising and uptake of youth vaping and cannabis use (28,29). Indeed, while youth-targeted advertising for cannabis products is prohibited in North America, adolescents are frequently exposed to cannabis vaping content from unverified sources online and through social media (30). It is well known that teens exposed to multiple forms of advertising are more likely to try vaping than those who aren't (31). Given the high overlap between e-cigarettes and cannabis vaping devices, the aggressive and often uncontrolled marketing strategies from vaping companies and uptake by high visibility public figures has been contributing to increases in both nicotine and cannabis vaping (12).

## CLINICAL CONSIDERATIONS

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Nicotine and cannabis co-use has been studied long before the recent increase in popularity of e-cigarettes and vaping devices but has now become a more pressing concern among teens given the frequent co-use of those two substances through vaping devices (32). It is well known that nicotine and cannabis addiction share common genetic risk factors, and that the concomitant or sequential use of these two substances can increase severity of withdrawal symptoms and hinder cessation efforts (33). In addition, nicotine consumed through e-cigarettes can enhance the addictive properties of cannabis and other substances, due to its rapid absorption and intense stimulation of the reward centre of the brain. This creates a 'perfect storm' for increased substance use behaviours among youth (11,34).

In order to address what has effectively become an epidemic among youth, health providers will need to seek proper education about nicotine and cannabis vaping products (35). An important first step is to use evidence-based tools to effectively screen for vaping among youth. Since many youth use vaping devices to consume both nicotine and cannabis, the use of a short evidence-based screening tool (36,37) with the inclusion of common vaping terms such as e-cigarettes, vapes, dabs, dab pens, vaporizers, and some of the most common commercial vaping brands will help increase screening effectiveness.

Though more research is needed in this area, therapeutic approaches that apply to smoked cannabis use such as motivational interviewing and individual counseling can be applied to cannabis vaping (38). One important consideration is that given the high potency of cannabis concentrates used in dab pens and vaporizers, youth should be informed about the higher risks of cannabis withdrawal when interrupting use (39).

## CONCLUSION

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While the risks and health effects of cannabis use during adolescence are well established, low perceptions of harm, especially with vaping devices, often considered ‘cleaner’ or less harmful than other modes of consumption, represent an important challenge for substance use prevention and reduction efforts. Improved regulation and oversight of the cannabis industry is a promising avenue to limit increases in underage cannabis vaping, but it is only a start. There is an important need for concerted efforts among paediatric providers, public health experts, schools, communities, and families to limit the spread of this rapidly growing trend. One point that will merit attention in upcoming years is the impact of the legalization of extracts of cannabis for vaping in late 2019. The Public Health Agency of Canada currently mentions in its *Lower-Risk Cannabis Use Guidelines* that cannabis vaping could represent a safer mode of consumption than smoking, due to lower toxic emissions. Caution will be needed to prevent young people with a still developing brain from considering this public health messaging and change in policy as an incentive to consume high-potency cannabis products with all their associated health risks.

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Los Angeles is already testing out a saliva swab drug test that can be used at the time of a traffic stop. Officials hope that having a quick and effective method to detect the presence of drugs will deter people from getting behind the wheel while under the influence of any substance.

## Looking for More Information?

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While the data is limited, researchers are still studying the issue! Take a look at the findings at the links below.

- A study by Columbia University released this past January found that the proportion of fatally injured drivers who tested positive for marijuana tripled from 1999 to 2010, from 4.2% to 12.2%. This may indicate that marijuana-impaired driving is playing an increased role in fatal crashes. The study is based on data from six states where toxicological testing is routinely performed on drivers involved in fatal car crashes.
- In Washington, 25% more drivers tested positive for marijuana in 2013, the first full year after the state legalized the drug, than in 2012. However, there was no overall rise in DUI arrests, and no significant increase in crashes.
- In Colorado, an increased proportion of drivers involved in fatal crashes tested positive for marijuana after 2009, when medical marijuana was legalized, than in the period before legalization. The study did not reveal whether the drivers were found to be impaired at the time of the crash, or whether they were at fault in the crash, so the results may only reflect an increase in use.

Curious about laws on marijuana and driving in your state? Check out NORML's state-by-state list of drugged driving laws.

## Overview

More states are passing legislation permitting medical and/or recreational marijuana use, which raises concerns about users driving under the influence of marijuana. This piece will discuss:

- Marijuana consumption and characteristics of marijuana impairment;
- Marijuana legalization's impact on auto accidents;
- Difficulties related to measuring user impairment; and
- Insurance impacts

## Historical perspective

Marijuana is a type of hemp plant of the species *Cannabis sativa L.*, part of the genus *Cannabis L.* Unlike industrial hemp, however, marijuana contains appreciable amounts of delta-9-tetrahydrocannabinol (THC), a psychoactive cannabinoid— it's the active chemical that induces user intoxication. The plant also contains several other, non-psychoactive cannabinoids such as "cannabidiol" (CBD).

There is evidence that cannabis has been consumed for thousands of years, often for medicinal purposes. The plant was used as a patent medicine in the U.S. since at least 1850, when the *United States Pharmacopoeia* described the plant for the first time. Cannabis was first regulated under federal law under the Marihuana Tax Act of 1937.

Marijuana was subsequently subjected to countrywide prohibition under the Controlled Substances Act of 1970 (CSA), which established a schedule for substances regulated under federal law. Marijuana is currently a Schedule I drug under the CSA, which defines Schedule I drugs as substances that have "no currently accepted medical use in the United States, a lack of accepted safety for use under medical supervision, and a high potential for abuse." Other substances under Schedule I include heroin, LSD, and peyote.

Despite the treatment of marijuana under federal law, in 1996 California became the first state in the U.S. to pass legislation permitting a medical marijuana program. By April 2021, 36 states and the District of Columbia have passed legislation permitting so-called "comprehensive" medical marijuana programs, which typically allow qualifying patients to access marijuana and marijuana-related products.

Since 2012, 18 states and the District of Columbia have passed legislation permitting anyone over the age of 21 to possess and use marijuana, subject to certain limitations. Most of those states also have or are developing regulations for a commercial market to support recreational marijuana sales.

## Marijuana impairment

The THC in marijuana plants causes intoxication in a user. (THC levels in other hemp plants are typically so low that they cannot induce intoxication.)

**Effects of marijuana consumption can vary.** Marijuana can affect users differently, depending on a variety of factors, including user tolerance. Common experiences while intoxicated include feelings of euphoria and relaxation; some may also experience heightened sensory perceptions and altered perceptions of time.

**Marijuana cannot cause overdose, but can potentially cause temporary psychosis.** There are no documented instances of an adult dying from an overdose of marijuana alone. However, in rare instances a user may experience a psychotic reaction to the drug or high levels of anxiety – in some cases, these side effects could lead a user to seek medical treatment. Such negative effects are often experienced after consuming edible marijuana products, which are often more potent and take longer to induce intoxication.

**Method of consumption alters impairment profile.** Several factors influence intoxication onset, intensity, and duration, including method of consumption, type of marijuana product consumed, product potency, and user characteristics.

Marijuana and related products can be consumed in several ways, including **inhalation** (either by smoking or vaporizing) of dried plant matter or concentrates (such as hashish or kief), **oral ingestion** (edibles, capsules, infusible oils), **sublingual ingestion** (lozenges), or **topical application** (lotions, salves, oils).

Smoking often causes almost immediate intoxication, with impairment typically lasting 2 to 4 hours. Intoxication onset is more delayed for other methods, sometimes up to two hours for edibles – and impairment may last much longer.

Product potency is dependent on THC levels. Potency varies considerably across marijuana products and can influence the degree of impairment. Smokable marijuana plant matter can range anywhere from 8 percent to 30 percent THC, whereas high-quality hash oil could reach up to 80 percent THC. There is evidence that marijuana products have become more potent over time.

User characteristics will also influence impairment. For example, chronic users may experience less acute impairment than non-chronic users.

## Marijuana and impaired driving

Marijuana intoxication can cause impaired driving, thereby increasing the risks of accidents. Marijuana legalization is associated with an increase in impaired driving.

**Marijuana impairment degrades cognition and motor skills.** Marijuana alters a user's perception. As such, most studies agree that marijuana use results in impaired coordination, memory, associative learning, attention, cognitive flexibility, and reaction time. Driving ability is thereby degraded to some degree – but by how much remains a matter of study and is subject to several factors, including the level of impairment and user characteristics.

For example, there is some evidence that user impairment may also result in limited “compensatory defensive” driving, in which a user drives more carefully to compensate for a degradation in motor functioning – but this may only mitigate degradation for some skills and may not apply to non-chronic users.

**Marijuana impairment increases the risk of accidents.** Nonetheless, the evidence suggests that acute impairment increases the risk of traffic accidents – though the magnitude of the increased risk is still a matter of study and can vary widely, depending on the study.

One literature review found evidence that 20 to 30 percent of crashes involving marijuana occurred because of the marijuana use. (This compares to roughly 85 percent of crashes involving alcohol that occurred because of alcohol use.) The review estimated that the crash risk increased 22 percent while under the influence of marijuana, controlling for concurrent alcohol use.

Another review found that someone driving under the influence of marijuana is 1.65 times more likely to be culpable in a fatal accident.

**The greater the impairment, the worse the driving abilities.** As noted above, level of impairment can influence the degree to which driving ability degrades. Indeed, there is strong evidence that the more impaired the driver, the worse their driving abilities.

**Mixing marijuana and alcohol produces additive effects.** There is evidence that mixing marijuana and alcohol increases impairment greater than the net effects of each individual substance. There also may exist the possibility for alcohol to increase THC levels. Potential compensatory defensive driving is nullified when a user mixes alcohol and marijuana.

**The number of crash rates could increase after legalization.** Researchers at the Insurance Institute for Highway Safety (IIHS) and the Highway Loss Data Institute (HLDI) since 2014 have been examining how legalization has affected crash rates and insurance claims, and evidence is emerging that crash rates go up when states legalize recreational use and retail sales of marijuana. The most recent of these studies, released in June 2021 by the IIHS, shows that injury and fatal crash rates in California, Colorado, Nevada, Oregon, and Washington jumped in the months following relaxation of marijuana laws in each state. The five states experienced a 6 percent increase in injury crash rates and a 4 percent increase in fatal crash rates, compared with other Western states where recreational marijuana use was illegal during the study period. However, only the increase in injury crash rates was statistically significant. These findings are consistent with a 2018 IIHS study of police-reported crashes, most of which did not involve injuries or fatalities. This study found that legalization of retail sales in Colorado, Oregon and Washington was associated with a 5 percent higher crash rate compared with the neighboring control states.

**Fatal crashes involving drivers who tested positive for THC have increased.** Some studies indicate that more people with "detectable" levels of THC in their bloodstreams were involved in fatal accidents after legalization. However, as discussed below, the mere presence of THC does not necessarily indicate marijuana impairment. Furthermore, regarding fatal crash rates overall, at least one study found no significant annual changes in crash fatality rates for Colorado and Washington when compared to 8 control states.

**A 2020 study by the AAA Foundation for Traffic Safety shows that the percentage of drivers in Washington involved in fatal crashes who tested positive for marijuana increased 100 percent after the state made the drug legal for recreational use.** The study considered the presence of detectable THC in the blood of fatal-crash-involved drivers. In general, the presence of detectable THC in blood suggests, but does not conclusively prove, that a person has recently used cannabis.

**Collision claim frequency appears to have increased.** Insurance records show an increase in claims under collision coverage, which pays for damage to an at-fault, insured driver's own vehicle, according to HLDI's latest analysis. The legalization of retail sales in Colorado, Nevada, Oregon, and

Washington was associated with a 4 percent increase in collision claim frequency compared with the other Western states from 2012 to 2019. The 4 percent decline is down slightly from the 6 percent increase HLDI identified in a previous study, which covered 2012 to 2018.

**Higher risk demographics also have higher rates of marijuana-impaired driving.** Younger drivers are at greater risk of traffic accidents than older drivers. Younger male drivers are at high risk of traffic accidents. Early evidence suggests that younger male drivers are most likely to drive under the influence of marijuana.

**Use of recreational marijuana impairs driving even when the driver is not**

**high.** A study published in the journal *Drug and Alcohol Dependence* suggests that chronic, heavy use of recreational marijuana impairs driving skills even when the driver is not high. The researchers used a driving simulator to evaluate the potential impact of cannabis use on driving performance. The study concluded that driving impairment was significantly worse among the study participants who began using marijuana regularly before age 16. The study, by researchers at Harvard Medical School's McLean Hospital, found that cannabis users hit more pedestrians, exceeded the speed limit more often, and drove through more red lights compared with non-users. At the time of the study, the marijuana users had not used for at least 12 hours and were not intoxicated.

## Determining intoxication: "THC persistence"

A key issue raised in many studies examining the effects of marijuana-impaired driving and its risks is "THC persistence." Unlike alcohol, THC levels in a user's body may not be an accurate indication of impairment.

Compared with marijuana, determining alcohol intoxication is relatively straightforward. The human body processes alcohol at a rate that allows blood alcohol concentration (BAC) to closely correlate with intoxication, making it an effective and accurate benchmark for measuring impairment.

**THC presence does not necessarily indicate impairment.** The human body processes THC differently than alcohol. As the AAA noted in a major 2016 study, THC can remain in a user's blood or urine for weeks after they consume marijuana, depending on various factors. Furthermore, THC levels spike immediately after consumption, but decline to low levels very quickly – long before impairment ends. It is therefore not currently possible to accurately determine when a user consumed marijuana based on the THC levels in their body.

Additionally, the length and intensity of intoxication depends not only on the strength of the marijuana product, but also on how the drug is consumed. Inhaling marijuana typically causes onset of intoxication within five minutes, with symptoms of intoxication lasting a couple of hours. On the other hand, ingesting marijuana (e.g. "special brownies") can delay onset of intoxication between one to four hours, and intoxication can last much longer than that.

These and other reasons led the AAA to conclude that "simply detecting any THC does not therefore indicate impairment."

A U.S. National Highway Traffic Safety Administration (NHTSA) report came to similar conclusions, noting that most studies have found that levels of THC do not closely correlate to the degree of impairment – and that often peak impairment occurs when THC levels have already begun to decline.

In sum, THC detection in a user post-accident does not necessarily mean that marijuana impairment contributed to a traffic accident.

**There is no agreed-upon impairment limit.** As noted above, greater impairment leads to worse driving skills. There is some evidence that higher blood THC concentrations are associated with a driver's culpability in an accident. However, there is no agreed-upon impairment limit above which an individual is indisputably impaired.

## State responses to marijuana-impaired driving

**Some states enforce *per se* limits on THC concentrations.** Nonetheless, several states currently enforce *per se* limits to determine marijuana impaired driving, typically 5 ng/ml of THC, though the limit in some states is as low as 1 ng/ml. Operating a vehicle with blood THC concentrations above the *per se* limit is illegal. Colorado enforces a "reasonable inference" standard, in which any THC concentration above 5 ng/ml can be inferred to indicate impairment. (Other states enforce a zero-tolerance policy for THC – any level of THC is prohibited.)

However, *per se* limits have been criticized for their potential to incriminate drivers who are not impaired, since THC can persist for long periods of time in a user. Unfortunately, the opposite may also be true: impaired drivers may not always be prosecuted, since high levels of THC quickly leave the bloodstream before impairment subsides. One study found that only 10 percent of its participants would have been prosecuted for impaired driving, even though many self-reported recent marijuana use.

Furthermore, the time between a roadside traffic stop and subsequent blood testing could take hours, making potential impairment difficult to measure since THC levels might have declined long before testing.

The AAA has therefore concluded that "a quantitative threshold for *per se* laws for THC following cannabis use cannot be scientifically supported."

**Other states use "behavioral evaluations" to help determine impairment.** Several states prohibit a driver from being under the influence of THC. In these states, determining whether a driver was marijuana-impaired depends on a variety of evidence, including behavioral evaluations of the driver by a law enforcement officer.

**There is currently no scientifically-sound roadside impairment test.** There is currently no "breathalyzer"-equivalent for marijuana impairment, in part due to the various difficulties of scientifically measuring impairment outlined above. Some have argued that saliva testing may help in determining THC-levels during a roadside stop, but others have argued that the mere presence of THC still cannot consistently and scientifically determine impairment.

## Impact on insurance

**Personal auto:** the standard personal auto policy does not address driving under the influence of any drug, including alcohol and marijuana. However, auto insurance rates may be impacted by the spread of marijuana legalization, particularly if such legalization is associated with an appreciable increase in

impaired driving and related accidents. An individual's auto insurance rates may rise if they are convicted of driving under the influence of marijuana. Risky driving behavior may also influence rates.

**Commercial auto:** the standard commercial auto policy also does not address driving under the influence of drugs. However, the U.S. Federal Motor Carrier Safety Administration (FMCSA) governs the drug and alcohol testing rules and regulations for employees driving vehicles that require a commercial driver's license (CDL).

The FMCSA requires employers to test a prospective employee for drugs, including marijuana, before permitting the individual to operate a commercial motor vehicle (CMV). The FMCSA may also require post-accident drug testing in the event of certain vehicle accidents, including those that result in a human fatality.

Random testing throughout the year is also required for CDL operators. Any CMV operator who is under the reasonable suspicion of being under the influence of drugs can be tested immediately. An operator who fails a drug test is prohibited from operating a CMV. The FMCSA prescribes a "return-to-duty" process for such an operator.

Of note, the U.S. Department of Transportation (DOT) has stated that a drug test cannot be verified as negative based on the fact that an employee has been certified to use medical marijuana: "It remains unacceptable for any safety-sensitive employee subject to drug testing under the Department of Transportation's drug testing regulations to use marijuana."

## Additional resources

American Automobile Association, "Overview of Major Issues Regarding the Impacts of Alcohol and Marijuana on Driving"

Governors Highway Safety Association, "Drug Impaired Driving"

National Association of Insurance Commissioners, "Cannabis and Insurance"

National Conference of State Legislatures, "Drugged Driving – Marijuana-Impaired Driving"

U.S. Department of Transportation, National Highway Traffic Safety Administration, "Marijuana-Impaired Driving"

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## **Supporting documents #5.pdf**

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# *Evaluation Report*



*Assessing the Impact of Proposition 64 on Cannabis Use, Maladaptive Cannabis Use, and Cannabis Use Disorder Treatment*  
Cannabis Use, Frequent Cannabis Use, Cannabis Use Disorders and Publicly Funded Cannabis Use Disorder Treatment in California, 2010-2020

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## Executive Summary

On November 8, 2016, California voters approved Proposition 64, which legalized non-medicinal adult use of cannabis. Cannabis has shown promise as an effective tool in the management of some health conditions, but it also brings health risks, including the development of cannabis use disorders (CUD). This report is the first in a series of reports on Proposition 64's health impacts that researchers from UCLA's Integrated Substance Abuse Programs are preparing for the California Department of Cannabis Control (DCC). The aims of these reports are to monitor the impacts that Proposition 64 has on: (1) population rates of cannabis use, maladaptive cannabis use, and CUD; (2) the treatment of CUD; and (3) public health, including health costs associated with cannabis use and the relationship between shifts in cannabis use and the use of alcohol and other drugs. The purpose of these reports is not to "judge" Proposition 64 or determine if it has "worked." Rather, it is to educate policymakers and the general public about the health impacts of Proposition 64, and to generate data-driven, evidence-based recommendations on how the DCC, policymakers, healthcare systems, and other stakeholders can safeguard and promote the health and wellness of Californians in the age of cannabis legalization.

Given the numerous significant developments in cannabis policy and substance use disorder treatment nationally and within the state, it is difficult to ascertain to what degree the observed changes in cannabis use, frequent cannabis use, CUD, and CUD treatment in California can be attributed to Proposition 64 or to other causes. Nonetheless, these data provide several key insights regarding cannabis use, cannabis use disorder treatment, and health in California over the past decade. In particular:

- Since 2010, cannabis use and frequent cannabis use have been increasing in California, and some data indicate that there have been substantive increases in frequent cannabis use in recent years. Rates of CUD have remained steady over the past decade.
- Cannabis use has become more prevalent across demographic groups since 2010. There are signs that use may be levelling off or even starting to decline among youth and Black Non-Hispanics, while it has continued to increase among adults and White Non-Hispanics. However, these increases have not led to documented increases in the prevalence of CUD.
- Some data indicate that frequent cannabis use has been increasing among adults since 2016.
- Though rates of CUD have remained steady since 2010, admissions to publicly funded CUD treatment have been declining since 2010. This decline has been accelerating since 2016.
- Criminal justice referrals to CUD treatment have been decreasing significantly, and at a faster rate than non-criminal justice referrals since 2016. Due to other developments related to cannabis policy and SUD treatment in California, it is unclear if the observed changes were caused by Proposition 64 or other factors.
- Proposition 64's passage in 2016 was associated with a significantly greater decline in CUD admissions for White Non-Hispanics and Hispanics than Black Non-Hispanics. Due to other developments related to cannabis policy and SUD treatment in California, it is unclear if the observed changes were caused by Proposition 64 or other factors.
- Both treatment retention and successful discharge rates declined in publicly funded CUD treatment in California over the past decade. Proposition 64's passage in 2016 was associated with a statistically significant 18.4 percent decrease in 90-day treatment retention and a statistically significant 15.7 percent decrease in successful discharges. Due to other developments related to cannabis policy and SUD treatment in California, it is unclear if the observed changes were caused by Proposition 64 or other factors.

Based on these findings, the Department of Cannabis Control, policymakers, and regulators could consider the following as they develop future policies and programs related to cannabis:

- It is encouraging that CUD rates have not been increasing dramatically in California. However, given that rates of use and frequent use are increasing, it is possible that many Californians are using cannabis in a manner that could lead to CUD in the future. California law stipulates that a significant portion of the funds generated from cannabis sales need to be deposited in a Youth Education, Prevention, Early Intervention, and Treatment Account that the California Department of Health Care Services can use to educate youth, prevent substance use disorders, and prevent harm from substance use. Given trends in cannabis use and frequent use, such programming will likely be essential to help California avoid increases in CUD like those detected in other states. Funds for education, prevention, and prevention of harm need to be preserved, and directed to the Department of Health Care Services to be utilized as intended by Proposition 64.
- There are indications that cannabis use and frequent use are becoming more prevalent, so state policymakers and local jurisdictions need to take evidence-based steps to prevent problem cannabis use. In particular, lessons from alcohol and tobacco regulation can be adapted into policies that protect public health in the age of cannabis legalization. Some of these measures may include requiring health warnings on cannabis products, informing vulnerable groups about the risks of cannabis use, limiting cannabis marketing and product diversification, and taking steps to avoid the emergence of profit-driven cannabis markets that are likely to promote use.
- While the youth education, prevention, early intervention, and treatment funding generated by Proposition 64 can help mitigate the negative impacts of legalization for youth, the more profound increases in frequent use have been among adults. Given the increases in use among adults, policymakers may want to consider developing strategies to generate dedicated funding to education, prevention, and treatment related to problematic cannabis use among adults that mirror those that have already been set aside for youth.
- Though rates of CUD have remained steady, utilization of publicly funded CUD treatment has been declining. This means that there could be a growing population that needs CUD treatment but is not receiving it. Programs designed to identify individuals with CUD and engage them in treatment services are needed to address this potential problem. In particular, screening and referral to treatment in settings where individuals with unidentified CUD may present for services (e.g. medical centers, mental health programs, criminal justice programs) can potentially identify individuals with unmet cannabis use disorder treatment needs to services. However, research is needed to develop strategies on how to best implement CUD screening and referral to treatment services in these settings. Funding to support research, technical assistance, and implementation support for screening and referral to treatment programs can help California ensure that it identifies individuals who need CUD treatment and effectively links them with care.
- Since 2016, criminal justice referrals to publicly funded CUD treatment have been declining significantly. The removal of legal sanctions for non-medicinal cannabis use, while positive in many respects, could be reducing opportunities to identify individuals who have CUD and engage them in treatment through criminal justice programs. From January 2010 through September 2016, 36.3 percent of referrals to publicly funded CUD treatment in California came from criminal justice sources. It is possible that a significant portion of these referrals are no longer happening because shifts in cannabis' legal status are preventing individuals who need treatment from interfacing with the criminal justice system. Consequently, California needs to develop strategies to identify and engage individuals who are not having their CUD treatment needs identified and addressed because of decreases in criminal justice referrals.
- Treatment retention and successful discharge rates in publicly funded CUD treatment have been decreasing for most of the past decade. To reverse this trend, California must continue taking steps to improve the accessibility and quality of CUD treatment. Providing resources and support for the Department of Health Care Services and county SUD treatment departments to enhance their treatment systems can help improve the effectiveness of publicly funded treatment for CUD.

We hope that this information will help the Department of Cannabis Control and policymakers across the state better understand impacts that cannabis is having on health in California, and take steps to promote and protect public health in the age of cannabis legalization.

# Background

On November 8, 2016, California voters approved Proposition 64, which legalized non-medicinal adult use of cannabis. Cannabis has shown promise as an effective tool in the management of some health conditions including chronic pain, chemotherapy-induced nausea and vomiting, multiple sclerosis spasticity, sleep problems, HIV/AIDS, Tourette syndrome, and anxiety and posttraumatic stress disorder symptoms.<sup>2</sup> However, cannabis can also have adverse impacts on health. According to a 2017 review by the National Academies of Sciences, Engineering, and Medicine, health problems associated with cannabis use include increased cardio-metabolic risk, respiratory problems, pregnancy complications, cognitive impairment, motor vehicle crashes, overdose-related injuries, mental health disorders, and the development of substance use disorders related to alcohol or other drugs. Heavy/frequent use and cannabis smoking can exacerbate some of these risks, including those related to respiratory and behavioral health.<sup>3</sup>

Cannabis use also can lead to cannabis use disorder (CUD), a potentially chronic health condition associated with the continued use of cannabis despite significant cannabis-related problems. CUD symptoms include a cluster of cognitive, behavioral, and physiological symptoms that can affect health and quality of life dramatically (see Table 1). Approximately 8.9% of people who use cannabis regularly develop CUD.<sup>4</sup> Though difficult to treat, a combination of psychotherapeutic interventions—motivational enhancement therapy, cognitive behavioral therapy, and contingency management—can be effective in the treatment of CUD. In addition, some pharmacological agents have shown promise in CUD treatment, though there is no well-established CUD medication at this time.<sup>5</sup>

Research from other states that allow adult use indicates that legalization is associated with increases in past-month cannabis use, frequent past-month cannabis use, and CUD among adults while also increasing CUD prevalence among adolescents.<sup>6</sup> Yet in spite of the increased need for CUD treatment in states that legalize adult use, research shows that legalization has actually been associated with decreases in CUD treatment.<sup>7</sup> This could be because legalization leads to declines in the number of individuals coerced into treatment by the legal system, or because legalization reduces social pressure from families and friends to seek treatment.<sup>8</sup> Furthermore, individuals who receive CUD treatment in

Cannabis is often taken in larger amounts or over a longer period than intended
Persistent desire or unsuccessful efforts to cut down or control cannabis use
A great deal of time is spent in activities necessary to obtain cannabis, use cannabis, or recover from its effects
Craving, or a strong desire or urge to use cannabis
Recurrent cannabis use resulting in a failure to fulfill major role obligations at work, school, or home
Continued cannabis use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of cannabis
Important social, occupational, or recreational activities are given up or reduced because of cannabis use
Recurrent cannabis use in situations in which it is physically hazardous
Continued cannabis use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by cannabis
Tolerance, as defined by either: (a) a need for markedly increased amounts of cannabis to achieve intoxication or desired effect; (b) markedly diminished effect with continued use of the same amount of cannabis
Withdrawal, as manifested by either: (a) three of the following signs/symptoms within approximately one week of cessation of heavy/prolonged use—irritability/anger/aggression; nervousness or anxiety; sleep difficulty; decreased appetite or weight loss; restlessness; depressed mood; significant discomfort from abdominal pain, shakiness/tremors, sweats, fever, chills, or headache; (b) taking cannabis or a closely related substance is to relieve or avoid withdrawal symptoms

<sup>1</sup> American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders: Fifth Edition, DSM-5*. Arlington, VA: American Psychiatric Association.

<sup>2</sup> National Academies of Sciences, Engineering, & Medicine. (2017). *The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research*. Washington, D.C. National Academies Press.

<sup>3</sup> National Academies of Sciences, Engineering, & Medicine, *op cit*.

<sup>4</sup> Lopez-Quintero, C., Perez de los Cobos, J., Hasin, D.S., Okuda, M., Wang, S., Grant, B.F., & Blanco, C. (2011). Probability and predictors of transition from first use to dependence on nicotine, alcohol, cannabis, and cocaine: results of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). *Drug and Alcohol Dependence*, 115:120-130.

<sup>5</sup> Sherman, B. J., & McRae-Clark, A. L. (2016). Treatment of cannabis use disorder: current science and future outlook. *Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy*, 36(5), 511-535.

<sup>6</sup> Cerdá, M., Mauro, C., Hamilton, A., Levý, N. S., Santaella-Tenorio, J., Hasin, D., ... & Martins, S. S. (2020). Association between recreational marijuana legalization in the United States and changes in marijuana use and cannabis use disorder from 2008 to 2016. *JAMA Psychiatry*, 77(2), 165-171

<sup>7</sup> Maxwell, J.C., Mendelson, B. (2016). What do we know about the impact of the laws related to marijuana? *Journal of Addiction Medicine* 10(1):3-12; Mennis J., Stahler, GJ. (2020). Adolescent treatment admissions for marijuana following recreational legalization in Colorado and Washington. *Drug and Alcohol Dependence*, 210: 107960.

<sup>8</sup> Hall, W., Lynskey, M. (2016). Evaluating the public health impacts of legalizing recreational cannabis use in the United States. *Addiction* 111(10):1764-1773.

adult-use states are less likely than their counterparts to stay in treatment for 90 days (as is recommended by the National Institute on Drug Abuse), but their treatment outcomes are comparable to those observed elsewhere.<sup>9</sup> There is also concern racial and ethnic groups who are at increased risk—particularly Blacks and Hispanics—could suffer disproportionately from the negative consequences of legalization, including increases in CUD.<sup>10</sup> Thus while legalization of adult-use cannabis has potential benefits (e.g. correcting injustices associated with the U.S. Drug War), increases in cannabis use, frequent use, and CUD in states that allow adult use is a public health concern.<sup>11</sup>

This report is the first in a series of reports on Proposition 64's health impacts that researchers from UCLA's Integrated Substance Abuse Programs are preparing for the California Department of Cannabis Control (DCC). The aims of these reports are to monitor the impacts that Proposition 64 has on: (1) population rates of cannabis use, maladaptive cannabis use, and CUD; (2) the treatment of CUD; and (3) public health, including health costs associated with cannabis use and the relationship between shifts in cannabis use and the use of alcohol and other drugs. The purpose of these reports is not to "judge" Proposition 64 or determine if it has "worked." Rather, it is to educate policymakers and the general public about the health impacts of Proposition 64, and to generate data-driven, evidence-based recommendations on how the DCC, policymakers, healthcare systems, and other stakeholders can safeguard and promote the health and wellness of Californians in the age of cannabis legalization.

This report is divided into sections on the following topics as they relate to cannabis and its health impacts in California: (1) changes in cannabis use and frequent cannabis use; (2) changes in CUD prevalence; and (3) changes in CUD treatment utilization and outcomes. The report concludes with a section discussing the implications of its findings, and recommendations on steps California can take to mitigate negative any trends revealed by the data.

It should be noted that the population surveys analyzed below (the National Survey on Drug Use and Health - NSDUH, the Behavioral Risk Factor Surveillance System - BRFSS, the California Health Interview Survey - CHIS) use different methods, leading to some discrepancies in the estimates they produce. However, each survey covers different time frames, (NSDUH 2002-2019, BRFSS 2017-2019, CHIS 2019-2020) and allows for different types of analyses (NSDUH collects data on CUD; the BRFSS and CHIS allow for more detailed breakdowns of age groups). The sources taken together paint a general picture of trends in cannabis use, frequent cannabis use, and CUD in California over the last decade. Readers should also be aware that limitations of several public use data sources—particularly the population surveys utilized—make it impossible to meaningfully analyze or interpret data regarding all age and racial/ethnic groups. In particular, the NSDUH data source utilized for this report only allows for state-level analyses of differences by age among two groups (individuals ages 12-25, individuals age 26+) and three racial/ethnic groups (White Non-Hispanics, Black Non-Hispanics, Hispanics). Since the data do not allow for analyses of data from other racial ethnic groups (e.g. Non-Hispanic Asian Americans, Native American/Alaska Natives, Native Hawaiians, Pacific Islanders), this report does not include data concerning these racial/ethnic groups. The authors acknowledge that this is a major shortcoming of the data sources used for this report and will work to find data on demographic groups not mentioned in this report in the future.

Finally, readers should keep in mind that Proposition 64 and its passage were part of a larger trend towards cannabis law liberalization in California and nationwide. See Table 2 for an overview of key policy developments that may have affected the availability of cannabis, the utilization of CUD treatment, public perceptions of cannabis' dangerousness and social acceptability, and legal sanctions faced by individuals who produce, sell, or consume cannabis. It is likely that these policies and developments, and not just Proposition 64, contributed to the trends reported below.

<sup>9</sup> Bourdon, J.L., Francis, M.W., Jia, L., Liang, C., Robinson, H.I., Grucza, R.A. (2021). The effect of cannabis policies on treatment outcomes for cannabis use among U.S. adults. *Journal of Substance Abuse Treatment* <https://doi.org/10.1016/j.jsat.2021.108535>

<sup>10</sup> Adinoff, B., & Reiman, A. (2019). Implementing social justice in the transition from illicit to legal cannabis. *The American Journal of Drug and Alcohol Abuse*, 45(6), 673-688.

<sup>11</sup> Cerdá, M, et al., 2020.

Table 2 Key Cannabis-Related Policy Developments in California, 1996-2020		
YEAR	POLICY DEVELOPMENT	IMPLICATIONS
1996	Proposition 215 (Compassionate Use Act of 1996) <sup>12</sup>	California law permitting use of cannabis for medical purposes if deemed appropriate and recommended by a physician
2003	Senate Bill 420 <sup>13</sup>	State Department of Health Services establishes and maintains a voluntary program for issuance of medical cannabis identification cards to qualified patients
2008	Mental Health Parity and Addiction Equity Act <sup>14</sup>	Required insurers and health plans to provide mental health and substance use disorder treatment benefits that are similar to all other health conditions, potentially increasing access to substance use disorder treatment.
2009	U.S. Department of Justice Memorandum concerning Investigations and Prosecutions in States Authorizing the Medical Use of Marijuana (Ogden Memo) <sup>15</sup>	U.S. Department of Justice guidance to U.S. Attorneys not to focus federal resources on actions of individuals who are in clear and unambiguous compliance with state medical cannabis laws.
2010	Senate Bill 1449 <sup>16</sup>	Reduces possession of less than an ounce of cannabis from a misdemeanor to an infraction, punishable only by fine
2011	U.S. Department of Justice Memorandum, Guidance Regarding the Ogden Memo in Jurisdictions Seeking to Authorize Marijuana for Medical Use (Cole Memo) <sup>17</sup>	U.S. Department of Justice guidance reiterating illegality of large-scale cannabis cultivation and sales
2011	Assembly Bill 1300 <sup>18</sup>	Explicitly allows governments in California to adopt ordinances regulating the location, operation, and establishment of medical cannabis dispensaries.
2011	Assembly Bill 109 <sup>19</sup>	Allows local supervision as alternative to state prison for non-violent offenders
2013	U.S. Department of Justice Memorandum, Guidance Regarding Marijuana Enforcement (Cole Memo II) <sup>20</sup>	U.S. Department of Justice guidance specifying that federal cannabis enforcement should focus on eight priority areas (including prevention of distribution to minors, preventing diversion to states that have not legalized cannabis, and preventing violence in cannabis cultivation and distribution); describes expectations that states that legalize cannabis will implement laws with an effective and robust regulatory framework.
2014	Medicaid Expansion under Affordable Care Act <sup>21</sup>	Extension of Medicaid coverage to low-income individuals, expanding potential access to cannabis use disorder treatment
2015	Medical Marijuana Regulation and Safety Act <sup>22</sup>	State laws governing the cultivation, processing, transportation, testing, and distribution of medical cannabis
2016	Proposition 64	Legalizes non-medical adult use of cannabis in California
2017	California Section 1115 Medicaid Waiver for Substance Use Disorder Treatment <sup>23</sup>	Expands access to different levels of substance use disorder treatment for California Medicaid beneficiaries
2018	Licensed sales of adult use cannabis begin in California <sup>24</sup>	Beginning of access to adult use (non-medical) cannabis
2018	U.S. Department of Justice Memorandum, Marijuana Enforcement (Sessions Memo) <sup>25</sup>	Rescinds all previous Department of Justice memoranda concerning cannabis enforcement, including 2009 Ogden Memo, 2011 Cole Memo, and 2013 Cole Memo II.
2020	COVID-19 pandemic <sup>26</sup>	Potential increase in problematic substance use, decrease in utilization of substance use disorder treatment

<sup>12</sup> Compassionate Use Act of 1996 Accessed from [https://leginfo.legislature.ca.gov/faces/codes\\_displaySection.xhtml?sectionNum=11362.5.&lawCode=HSC](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=11362.5.&lawCode=HSC)

<sup>13</sup> Senate Bill 420. Accessed from [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=200320040SB420](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200320040SB420)

<sup>14</sup> Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008. Accessed from <https://www.cms.gov/regulations-and-guidance/health-insurance-reform/healthinsreformforconsume/downloads/mhpaea.pdf>

<sup>15</sup> U.S. Department of Justice, Memorandum for Selected United States Attorneys, Investigations and Prosecutions in States Authorizing the Medical Use of Marijuana.

October 19, 2009. Accessed from <https://www.justice.gov/sites/default/files/opa/legacy/2009/10/19/medical-marijuana.pdf>

<sup>16</sup> Senate Bill 1449. Accessed from [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=200920100SB1449](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200920100SB1449)

<sup>17</sup> U.S. Department of Justice, Memorandum for United States Attorneys, Guidance Regarding the Ogden Memo in Jurisdictions Seeking to Authorize Marijuana for Medical Use. June 29, 2011. Accessed from <https://www.justice.gov/sites/default/files/opa/legacy/2014/07/23/dag-guidance-2011-for-medical-marijuana-use.pdf>

<sup>18</sup> Assembly Bill 1300. Accessed from [https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\\_id=201120120AB1300](https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201120120AB1300)

<sup>19</sup> Assembly Bill 109. Accessed from [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201120120AB109](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB109)

<sup>20</sup> U.S. Department of Justice, Memorandum for All United States Attorneys, Guidance Regarding Marijuana Enforcement. August 29, 2013. Accessed from <https://www.justice.gov/iso/opa/resources/3052013829132756857467.pdf>

<sup>21</sup> Buck, J. A. (2011). The looming expansion and transformation of public substance abuse treatment under the Affordable Care Act. *Health Affairs*, 30(8), 1402-1410.

<sup>22</sup> Senate Bill No. 643. Accessed from [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201520160SB643](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB643)

<sup>23</sup> Urada, D., et al., (2018). *California Drug Medi-Cal Organized Delivery System, 2018 Evaluation Report*. Los Angeles, CA: UCLA Integrated Substance Abuse Programs.

<sup>24</sup> Assembly Bill 64. Accessed from [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201720180AB64](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB64)

<sup>25</sup> U.S. Department of Justice, Memorandum for All United States Attorneys, Marijuana Enforcement. January 4, 2018. Accessed from <https://www.justice.gov/opa/press-release/file/1022196/download>

<sup>26</sup> Czeisler, M. E., Lane, R. I., Petrosky, E., Wiley, J. F., Christensen, A., Njai, R., ... & Rajaratnam, S. M. (2020). Mental health, substance use, and suicidal ideation during the COVID-19 pandemic—United States, June 24–30, 2020. *Morbidity and Mortality Weekly Report*, 69(32), 1049: Rogers, A. H., Shepherd, J. M., Garey, L., & Zvolensky, M. J.



## Data Sources and Definitions

Data for this report were drawn from the following sources:

- **Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health (NSDUH):** The NSDUH is an annual nationwide survey that provides up-to-date information on tobacco, alcohol, and drug use, as well as mental health and other health-related issues in the United States. Each year the NSDUH is conducted in all 50 states and the District of Columbia, with respondents sampled from households through scientific methods. The Substance Abuse and Mental Health Services Administration's Center for Behavioral Health Statistics and Quality oversees all aspects of the NSDUH, including data collection, analysis, and reporting. To improve statistical power for data analytics, public use files merging data from two years are reported at a regional basis. Though there are other statewide surveys that provide detailed information on substance use in California, the NSDUH is being used in this report since it provides annual estimates of CUD in all states from 2002/2003 through 2018/2019. More information on the NSDUH can be found at [https://nsduhweb.rti.org/respweb/about\\_nsduh.html](https://nsduhweb.rti.org/respweb/about_nsduh.html). NSDUH data presented in this report was collected from the Substance Abuse and Mental Health Data Archive's Restricted-use Data Analysis System, which is available at <https://rdas.samhsa.gov/#/> and its Interactive NSDUH Substate Estimates page, which is available at <https://pdas.samhsa.gov/saes/substate>. It should be noted that a limitation of the NSDUH is that it only collects information from the housed, non-institutionalized population, and the estimates it generates concerning substance use sometimes differ from those observed in other national surveys.<sup>27</sup>
- **U.S. Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System (BRFSS):** BRFSS collects annual data about health-related risk behaviors, chronic health conditions, and the use of preventive services from all 50 states as well as the District of Columbia and three U.S. territories. Since 2016, the California BRFSS has included information about cannabis use. In this report, BRFSS data is used mainly to examine trends in cannabis use (but not CUD) since the passage of Proposition 64.
- **The UCLA Fielding School of Public Health, Center for Health Policy Research California Health Interview Survey (CHIS):** CHIS is the largest state health survey in the United States, and is conducted continuously to allow for timely one-year estimates. CHIS interviews over 20,000 Californians from all 58 counties and provides a detailed picture of the state's health and health care needs. In 2019 and 2020, CHIS included questions about cannabis, but not CUD. In this report, CHIS data is used mainly to examine trends in cannabis use since the passage of Proposition 64.
- **California Department of Health Care Services (DHCS) Outcomes Measurement System, Treatment (CalOMS-Tx) Database.** CalOMS-Tx includes information on all treatment episodes for people who receive DHCS-funded outpatient, residential, and withdrawal management substance use disorder (SUD) services in California dating back to 2007. There are data on over 100,000 treatment episodes per year in CalOMS-Tx. For each of these episodes, CalOMS-Tx has information concerning client demographics, substance use, referral sources, treatment retention, and treatment outcomes. This report only includes information concerning treatment in outpatient (both methadone and non-methadone) and residential levels of care. Though California's publicly funded SUD system also offers other types of treatment such as withdrawal management ("detox"), these services are generally of short duration, and intended to be first steps towards treatment in a residential or outpatient program rather than treatments in and of themselves.<sup>28</sup> Consequently, this analysis excluded treatment in withdrawal management programs. Programs that report to CalOMS-Tx account for approximately 53 percent of the state's SUD treatment providers, and provide services to nearly 82 percent of all

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(2020): Mark, T. L., Gibbons, B., Barnosky, A., Padwa, H., & Joshi, V. (2021). Changes in Admissions to Specialty Addiction Treatment Facilities in California During the COVID-19 Pandemic. *JAMA Network Open*, 4(7), e2117029-e2117029.

<sup>27</sup> Grigsby, T. J., Howard, K., & Howard, J. T. (2021). Comparison of Past Year Substance Use Estimates by Age, Sex, and Race/Ethnicity Between Two Representative Samples of the US Adult Population. *Population research and policy review*, 1-16; Gruzca, R. A., Abbaocchi, A. M., Przybeck, T. R., & Gfroerer, J. C. (2007). Discrepancies in estimates of prevalence and correlates of substance use and disorders between two national surveys. *Addiction*, 102(4), 623-629.

<sup>28</sup> Center for Substance Abuse Treatment. (2015). *Detoxification and Substance Abuse Treatment. Treatment Improvement Protocol (TIP) Series, No. 45*. Rockville, MD: Center for Substance Abuse Treatment.



individuals who receive SUD treatment in California.<sup>29</sup> These programs serve a diverse, predominantly low-income population that is at high risk for CUD.<sup>30</sup> More information on CalOMS-Tx can be found at <http://www.dhcs.ca.gov/provgovpart/Pages/CalOMS-Treatment.aspx>

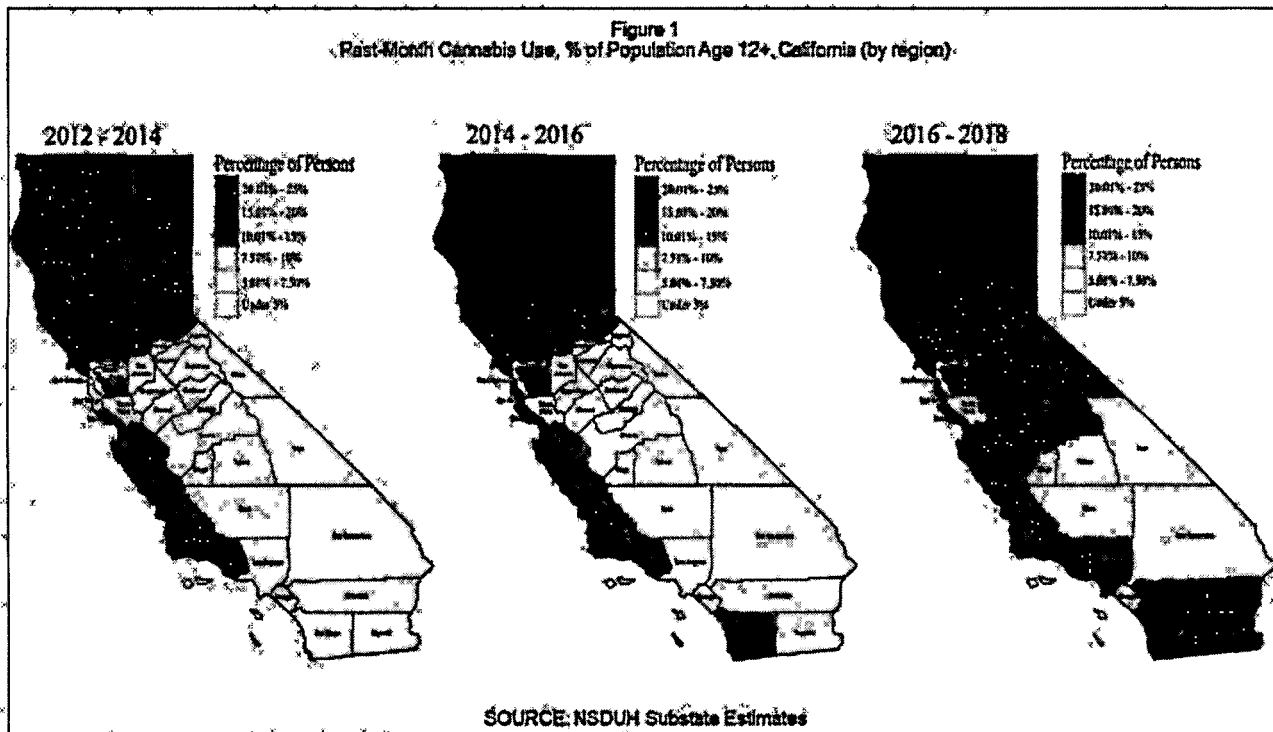
See the Appendix for the definitions used for key outcomes and measures in this report.

## Findings

### Changes in Cannabis Use and Frequent Cannabis Use

Rates of past-month cannabis use and frequent (20 of 30 days) past-month cannabis use have been growing since 2010. This trend has not changed dramatically since Proposition 64. However, past-month prevalence indicators show notable increases in use from 2014/2015-2018/2019.

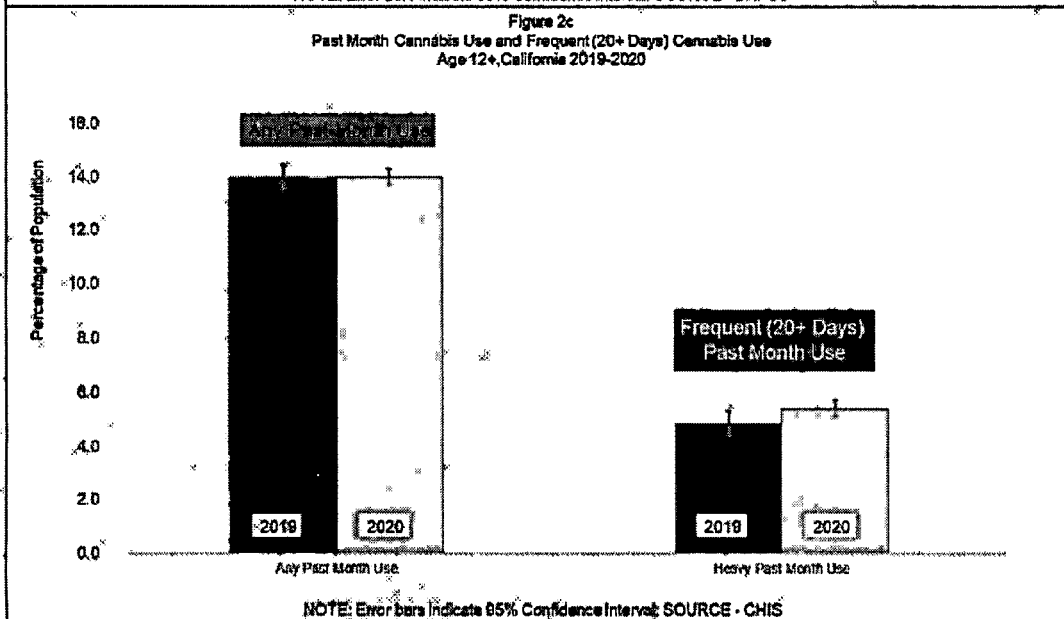
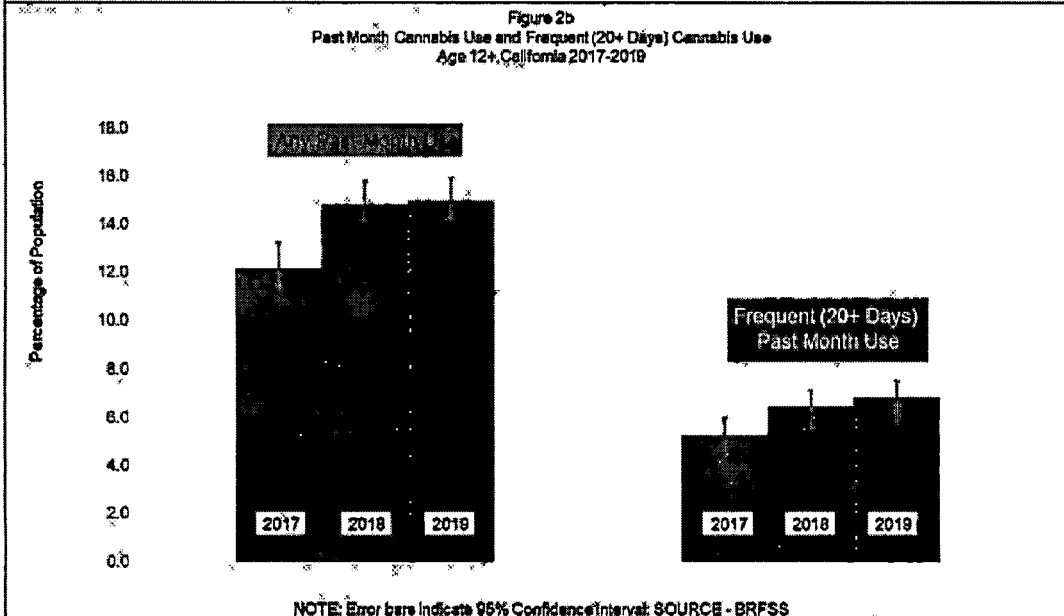
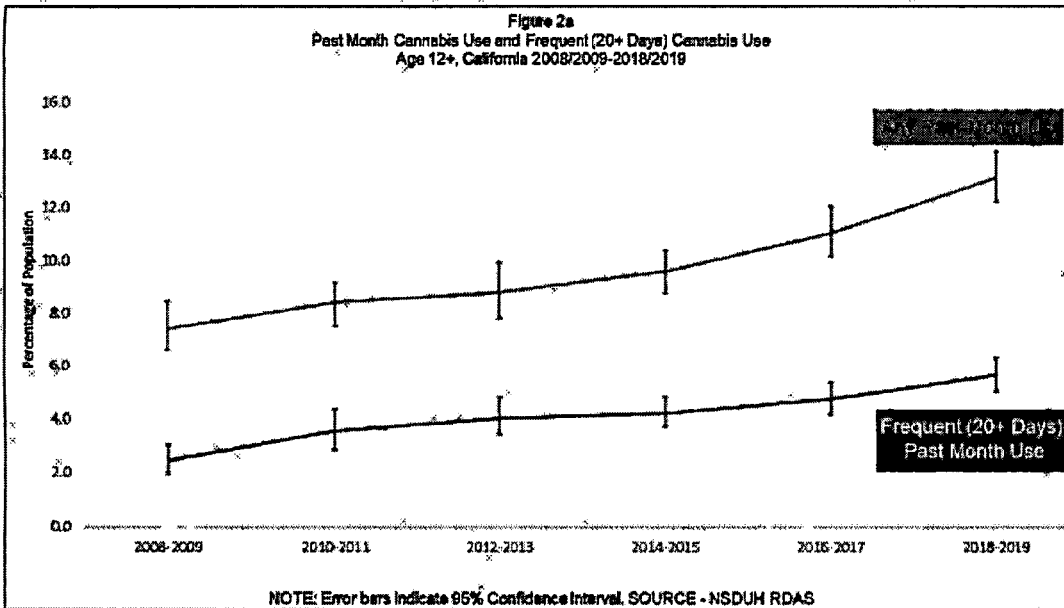
Figure 1 shows the estimated prevalence of past-month cannabis use across California, broken down by region,<sup>31</sup> based on NSDUH data from 2012-2014, 2014-2016, and 2016-2018. Rates of past-month use have been highest in Northern California, increasing over time in Northern and Central regions of the state, and growing in Los Angeles, San Diego, Riverside, and Imperial Counties.



<sup>29</sup> Bass B, Urada D, Joshi, V. (manuscript in preparation). The effect of the Drug Medi-Cal Organized Delivery System 1115 Demonstration Waiver on substance use disorder treatment access: evidence from California.

<sup>30</sup> Hasin, D. S., Shmulewitz, D., & Safvet, A. L. (2019). Time trends in US cannabis use and cannabis use disorders overall and by sociodemographic subgroups: a narrative review and new findings. *The American Journal of Drug and Alcohol Abuse*, 45(6), 623-643.

<sup>31</sup> The regions in this map are: Region 1R (Butte, Colusa, Del Norte, Glenn, Humboldt, Lassen, Mendocino, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama, and Trinity Counties), Region 2R (El Dorado, Nevada, Placer, Sutter, Yolo, Yuba Counties), Region 3R (Sacramento County), Region 4R (Marin, Napa, Solano, Sonoma Counties), Region 5R (San Francisco County), Region 6R (Santa Clara County), Region 7R (Contra Costa County), Region 8R (Alameda County), Region 9R (San Mateo County), Region 10R (Santa Barbara and Ventura Counties), Region 11R (Los Angeles County), Region 12R (Alpine, Amador, Calaveras, Mono, San Joaquin, and Tuolumne Counties), Region 13R/19R (Imperial and Riverside Counties), Region 14R (Orange County), Region 15R (Fresno County), Region 16R (San Diego County), Region 17R (Inyo, Kern, Kings, and Tulare Counties), Region 18R (San Bernardino County), Region 20R (Madera, Mariposa, Merced, and Stanislaus Counties), Region 21R (Monterey, San Benito, San Luis Obispo, and Santa Cruz Counties)



Figures 2a-2c illustrate trends in the prevalence of past-month cannabis use and frequent (20+ days) past-month cannabis use in California from 2019-2020 according to the NSDUH, BRFSS and CHIS. NSDUH (Figure 2a) shows that California's share of the population age 12+ reporting any past-month cannabis use increased steadily from 2008/2009 to 2014/2015, and then grew dramatically (increasing by 37.2 percent) from 2014/2015 through 2018/2019. BRFSS (Figure 2b) shows rates of past-month use increasing from 2017-2018 (by 22.6 percent) and remaining steady in 2019, while CHIS (Figure 2c) shows past-month use did not change appreciably from 2019-2020.

As with past-month use, the share of California's population reporting frequent (20+ days) past-month use increased steadily from 2008/2009 to 2014/2015, and it continued to increase at a similar rate after Proposition 64 (NSDUH – Figure 2a). BRFSS data (Figure 2b) show frequent past-month use increasing from 2017-2018 (by 23.8 percent) and remaining steady from 2018-2019, while CHIS data (Figure 2c) indicate that from 2019-2020, rates of frequent past-month use remained unchanged.

**Across age and racial/ethnic groups, past-month cannabis use became more prevalent from 2010-2017, particularly for adults under 60.** Tables 3a-3c show rates of past-month cannabis use in California from 2008-2020 by age group and race/ethnicity analyzed. NSDUH (Table 3a) shows past-month cannabis use rates trending upward for youth under 26, adults over 26, and Hispanics almost every year from 2008/2009 to 2018/2019. For White Non-Hispanics, past-month use increased each year, with a particularly dramatic increase (34.6 percent) from 2014/2015-2018/2019. BRFSS (Table 3b) shows a rising trend in past-month use rates all demographic groups analyzed from 2017-2018, although only results for Hispanics show a statistically significant (39.4 percent) increase. From 2018-2019, past-month use rates levelled off for all demographics. White Non-Hispanics and adults over 60 saw statistically significant increases in their rates of past-month use from 2017-2019. CHIS (Table 3c) shows that past-month use rates dropped for 18-25 year olds (by 22.0 percent) from 2019-2020, though it increased among adults age 26-59 over the same period.

<b>Table 3a</b> <b>Percentage of California Population Reporting Past-Month Cannabis Use</b> <b>(95% Confidence Intervals in Parentheses)</b> <b>SOURCE - NSDUH</b>						
Year	Age 12-25	Age 26+	White Non-Hispanic	Black Non-Hispanic	Hispanic	
2008/2009	13.4 (12.0-14.8)	5.5 (4.1-6.9)	9.6 (8.1-11.4)	10.8 (7.0-15.1)	5.1 (4.2-6.2)	
2010/2011	15.8 (14.4-17.2)	6.1 (4.7-7.5)	11.0 (9.3-13.0)	12.9 (8.7-18.7)	6.5 (5.5-7.7)	
2012/2013	15.7 (14.3-17.3)	6.6 (5.5-8.0)	12.1 (10.3-14.1)	12.3 (8.9-16.9)	5.9 (4.9-7.1)	
2014/2015	15.3 (13.9-16.7)	7.8 (7.0-9.6)	12.7 (11.2-14.4)	16.8 (13.4-20.8)	7.4 (6.5-8.4)	
2016/2017	16.2 (14.9-17.7)	9.6 (8.5-10.7)	14.0 (12.3-15.9)	18.3 (14.2-23.2)	8.6 (7.6-9.7)	
2018/2019	18.5 (16.9-20.2)	11.7 (10.5-12.9)	17.1 (15.3-18.9)	16.9 (13.3-21.2)	10.6 (9.4-11.9)	

<b>Table 3b</b> <b>Percentage of California Population Reporting Past-Month Cannabis Use</b> <b>(95% Confidence Intervals in Parentheses)</b> <b>SOURCE - BRFSS</b>						
Year	Age 18-24	Age 25-59	Age 60+	White Non-Hispanic	Black Non-Hispanic	Hispanic
2017	21.7 (17.2-25.6)	13.1 (11.6-14.6)	6.4 (5.2-7.6)	15.6 (13.8-17.4)	15.4 (10.1-20.7)	9.4 (7.7-11.1)
2018	26.7 (23.0-30.4)	15.4 (14.2-16.6)	8.8 (7.6-10.2)	17.5 (16.0-18.9)	20.9 (18.0-25.9)	13.1 (11.6-14.8)
2019	26.3 (22.5-30.2)	15.3 (14.0-16.6)	9.7 (8.4-11.0)	19.1 (17.5-20.7)	21.8 (18.7-26.9)	12.1 (10.6-13.6)

<b>Table 3c</b> <b>Percentage of California Population Reporting Past-Month Cannabis Use</b> <b>(95% Confidence Intervals in Parentheses)</b> <b>SOURCE - CHIS</b>						
Year	Age 18-25	Age 26-59	Age 60+	White Non-Hispanic	Black Non-Hispanic	Hispanic
2019	23.6 (20.9-26.3)	14.3 (13.6-15.0)	8.6 (8.1-9.2)	17.9 (17.2-18.5)	18.9 (16.2-21.6)	12.2 (11.2-13.2)
2020	18.4 (16.2-20.6)	15.8 (15.1-16.5)	8.4 (7.9-9.0)	18.6 (17.6-19.2)	16.2 (13.6-18.9)	11.8 (10.8-12.8)

Frequent past-month cannabis use trended upward for nearly all demographic groups analyzed from 2008-2015, prior to Proposition 64. This upward trend continued for adults under 60 after Proposition 64. Hispanics remain significantly less likely to report frequent use than other racial/ethnic groups analyzed.

Tables 4a-4c show trends in frequent past-month cannabis use (20+ days) by age group and race/ethnicity. NSDUH (Table 4a) shows frequent use rates have fluctuated but grown among 12-25 year olds over the entire period while they increased steadily for adults age 26+, more than tripling from 2008/2009 to 2018/2019. Frequent use rates have fluctuated among Black Non-Hispanics, and they have grown relatively steadily among Hispanics. However, Hispanics remain significantly less likely other racial/ethnic groups to report frequent use. The most pronounced growth in frequent use rates since Proposition 64 have been among adults age 26+ (increasing by 48.6 percent from 2014/2015-2018/2019) and White Non-Hispanics (increasing by 39.3 percent from 2014/2015-2018/2019).

Table 4a Percentage of California Population Reporting Frequent (20+ Days) Past-Month Cannabis Use (95% Confidence Intervals in Parentheses) SOURCE - NSDUH						
Year	Age 12-25	Age 26+	White Non-Hispanic	Black Non-Hispanic	Hispanic	
2008/2009	4.5 (4.1-5.0)	1.8 (1.4-2.3)	3.4 (2.6-4.5)	5.2 (2.3-11.2)	1.2 (0.9-1.6)	
2010/2011	6.2 (5.6-6.9)	2.7 (2.2-3.4)	4.7 (3.5-6.2)	7.6 (4.7-12.0)	2.7 (1.9-3.7)	
2012/2013	6.6 (6.0-7.3)	3.2 (2.6-4.0)	6.0 (4.8-7.4)	4.2 (2.7-6.4)	2.4 (1.7-3.3)	
2014/2015	5.8 (5.4-6.5)	3.7 (3.3-4.4)	5.6 (4.7-6.8)	11.1 (8.0-15.2)	2.8 (2.2-3.5)	
2016/2017	6.5 (6.0-7.2)	4.2 (3.7-5.0)	6.1 (5.1-7.3)	9.7 (6.8-13.6)	3.5 (2.8-4.3)	
2018/2019	6.3 (5.7-7.0)	5.5 (5.0-6.1)	7.8 (6.8-9.0)	9.3 (6.9-12.4)	4.1 (3.4-4.9)	

Table 4b Percentage of California Population Reporting Frequent (20+ Days) Past-Month Cannabis Use (95% Confidence Intervals in Parentheses) SOURCE - BRFSS						
Year	Age 18-24	Age 25-59	Age 60+	White Non-Hispanic	Black Non-Hispanic	Hispanic
2017	7.7 (4.7-10.6)	6.2 (5.1-7.2)	2.4 (1.7-3.2)	7.3 (6.1-8.5)	8.2 (3.8-12.5)	3.5 (2.4-4.7)
2018	9.5 (7.2-11.8)	7.2 (6.3-8.1)	3.9 (3.0-4.8)	8.1 (7.0-9.1)	9.4 (5.9-13.0)	5.8 (4.6-6.6)
2019	11.0 (8.2-13.7)	7.2 (6.3-8.2)	4.4 (3.5-5.3)	8.7 (7.5-9.8)	12.4 (8.1-18.7)	5.3 (4.3-6.2)

Table 4c Percentage of California Population Reporting Frequent (20+ Days) Past-Month Cannabis Use (95% Confidence Intervals in Parentheses) SOURCE - CHIS						
Year	Age 18-25	Age 26-59	Age 60+	White Non-Hispanic	Black Non-Hispanic	Hispanic
2019	7.8 (5.9-9.3)	5.0 (4.5-5.4)	3.3 (3.0-3.6)	8.6 (6.2-7.0)	6.8 (5.1-8.5)	4.1 (3.5-4.7)
2020	7.0 (5.6-8.5)	5.9 (5.5-6.4)	3.7 (3.4-4.1)	7.0 (6.6-7.5)	8.0 (6.1-10.0)	4.7 (4.0-5.3)

BRFSS (Table 4b) shows that frequent use had an upward trend for almost all demographic groups analyzed from 2017-2019, though there is such large sampling variability in this measure that only increases among adults over 60 are statistically meaningful. CHIS (Table 4c) shows statistically significant increases in frequent use in just a single year, from 2019-2020, among adults age 25-59 and adults over 60. While each racial/ethnic group also continues to show upward trends in use in CHIS, these changes are not statistically significant. Hispanics show lower rates of frequent use than other groups in both BRFSS and CHIS.

## Changes in Cannabis Use Disorder Prevalence

The prevalence of CUD in California has remained steady in California since 2008/2009. There have not been any notable shifts in CUD prevalence among age or racial/ethnic groups analyzed.

Figure 3 shows the prevalence of CUD in California from 2008/2009 through 2018/2019. In spite of the aforementioned changes in use and frequent use, the prevalence of CUD in California has remained relatively steady over the 10-year period.

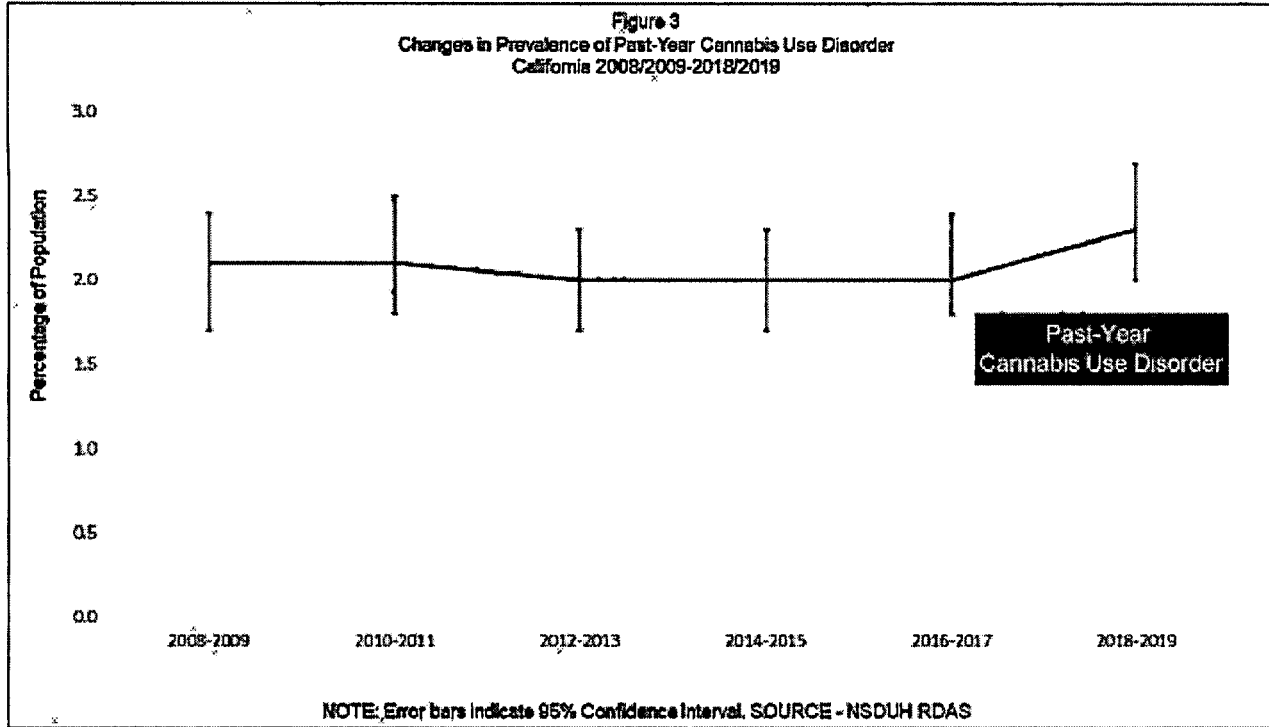


Table 5 shows the prevalence of CUD among different age and racial/ethnic groups from 2008/2009-2018/2019. CUD rates have been higher for youth age 12-25 than for adults over age 26 and for Black/Non-Hispanics than other racial/ethnic groups analyzed in most years.

**Table 5**  
Percentage of California Population Reporting Past-Year Cannabis Use Disorder  
(95% Confidence Intervals in Parentheses)  
SOURCE - NSDUH

Year	Age 12-25	Age 26+	White Non-Hispanic	Black Non-Hispanic	Hispanic
2008/2009	5.1 (4.4-6.0)	1.1 (0.7-1.5)	2.2 (1.7-2.8)	2.4 (1.3-2.8)	2.2 (1.7-2.9)
2010/2011	6.3 (5.5-7.2)	0.8 (0.5-1.3)	1.6 (1.2-2.2)	2.8 (1.7-4.7)	2.8 (2.2-3.6)
2012/2013	5.5 (4.7-6.4)	0.9 (0.6-1.3)	2.2 (1.7-2.9)	5.2 (3.1-8.7)	1.7 (1.4-2.2)
2014/2015	4.6 (4.0-5.2)	1.1 (0.8-1.5)	2.2 (1.8-2.9)	3.4 (2.2-5.2)	1.7 (1.3-2.3)
2016/2017	5.1 (4.3-5.9)	1.2 (0.9-1.5)	2.3 (1.8-2.8)	3.9 (2.4-6.3)	1.8 (1.4-2.3)
2018/2019	5.3 (4.5-6.2)	1.5 (1.1-1.9)	2.5 (2.0-3.1)	2.9 (1.8-4.6)	2.3 (1.7-2.9)

# Changes in Cannabis Use Disorder Treatment, Referrals, and Outcomes

**CUD treatment admissions, treatment retention, and successful discharge rates trended downward from 2010-2020.**

Figure 4 provides an overview of CUD admissions and other SUD admissions in California from 2010-2020. CUD admissions declined steadily over the course of the decade, whereas admissions for disorders related to other substances remained relatively steady for most of the 10-year period.

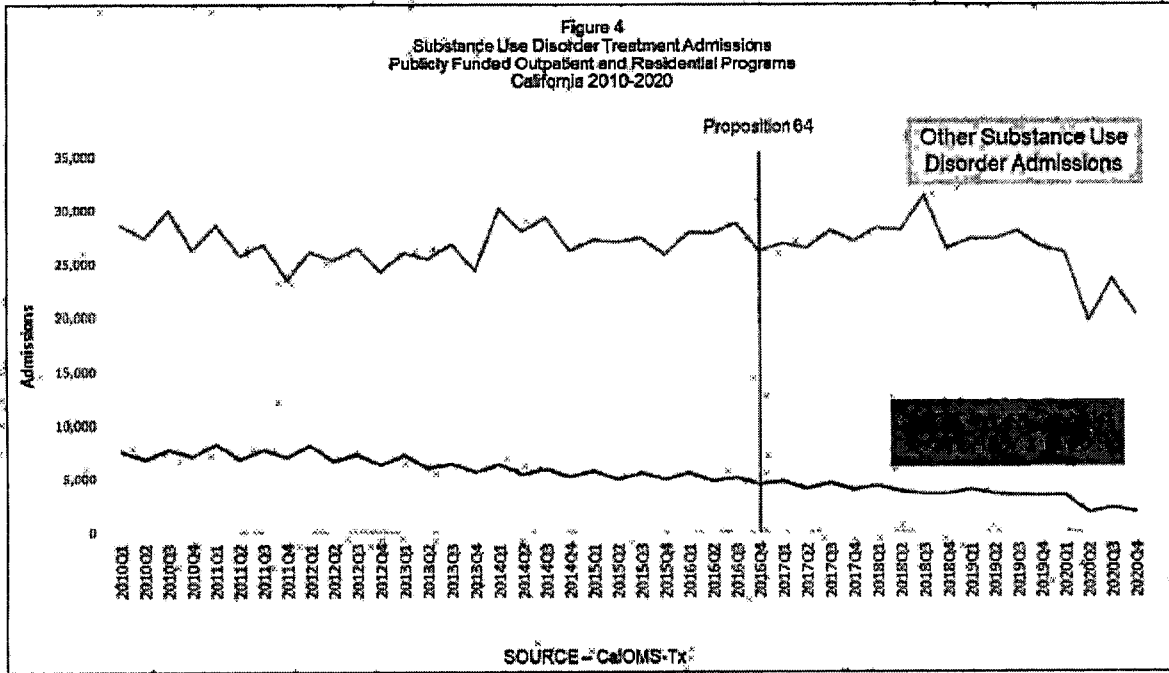
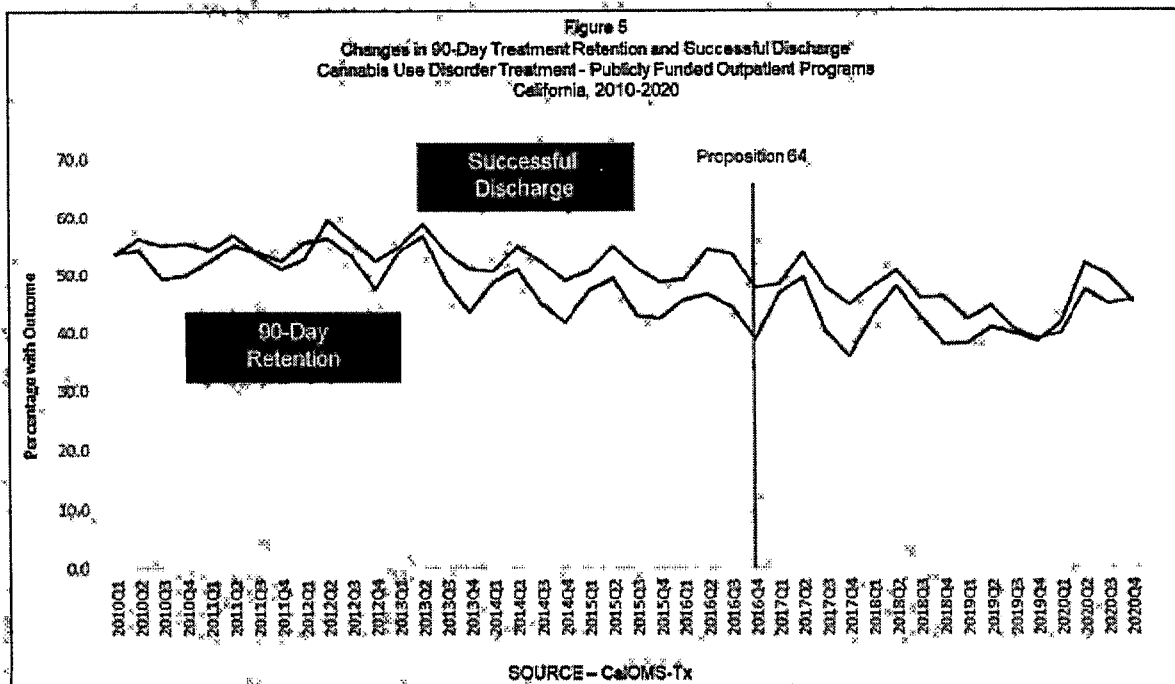


Figure 5 shows trends in 90-day treatment retention and successful discharge among clients treated for CUD. Both treatment retention and successful discharge rates declined significantly over the period from 2010-2019 ( $p < 0.001$  for both retention and successful discharge).



**Proposition 64's implementation was associated with statistically significant decreases in CUD treatment admissions, particularly for White Non-Hispanics and adults over 26. It was also associated with statistically significant decreases in criminal justice referrals to CUD treatment, but not with statistically significant decreases in non-criminal justice referrals. However, due to other developments related to cannabis policy and SUD treatment in California, it is unclear if the observed changes were caused by Proposition 64 or other factors.**

Figures 4-5 illustrate that CUD admissions, CUD treatment retention rates, and successful discharge rates generally decreased in California's publicly funded SUD system from 2010-2020. Below, we use a more rigorous approach to determine the degree to which Proposition 64 impacted these outcomes. We estimate a linear regression model via ordinary least squares (OLS):

$$Y_{ct} = \alpha + \beta Prop64_t + \delta' X_{ct} + \lambda_c + \gamma_z + \varepsilon_{ct}$$

In this equation, "c" indexes each county, and "t" indexes each month/year.  $Y_{ct}$  is the logged outcome of interest (given the discrete nature of admissions and discharges), including admissions, treatment retention, or successful discharge.  $\alpha$  is the intercept term, which gives us the average value of the outcome when all other explanatory variables are equal to zero.  $Prop64_t$  is an indicator set equal to 1 after Proposition 64 passed (November 8, 2016), and 0 otherwise.  $X_{ct}$  is a vector of county-specific time-varying controls, including DMC-ODS Waiver status (e.g. an indicator set equal to 1 when the county implements the DMC-ODS Waiver and 0 otherwise) and the COVID-19 death rate per 100,000.  $\lambda_c$  is a county fixed effect to control for time-invariant county effects,  $\gamma_z$  is a year fixed effect to control for county-invariant year effects (e.g. controls for factors changing each year that are common to all counties within a given year), and  $\varepsilon_{ct}$  is the error term. Observations are aggregated to the county-month-year level, and standard errors are clustered at the county level. The same model above is also used to estimate the impact of Proposition 64 on admissions by subgroups, including age, race/ethnicity, and criminal justice status. The regressions are estimated using admission and discharge data from CalOMS-Tx from January 2010 to December 2020. The main coefficient of interest in this analysis is  $\beta$ , which measures the impact of Proposition 64 on the outcomes of interest. We can interpret  $\beta$  as the expected change in the outcomes of interest after the passage of Proposition 64, compared to before the passage of Proposition 64. Analyses were conducted using Stata version 16.1.

Table 6 presents the OLS regression results estimating the associations between Proposition 64, admissions for CUD treatment among patients overall, by age group, racial/ethnic group, and referral sources.

	All	Age 12-25	Age 26+	White, Non-Hisp.	Black, Non-Hisp.	Hispanic	Criminal Justice	Non-Criminal Justice
Proposition 64	-0.1769** (0.0553)	-0.1279* (0.0504)	-0.1560** (0.0492)	-0.1786** (0.0442)	-0.0011 (0.0388)	-0.1267** (0.0483)	-0.1845** (0.0495)	-0.1076 (0.0560)
N	7355	7355	7355	7355	7355	7355	7355	7355

NOTES: OLS estimates from equation in the text are presented. Data on outcomes presented come from CalOMS-Tx for the years 2010-2020. Observations are at the county-month-year level. Each column is a separate regression, and the natural log of each outcome is taken. Regressions include controls for DMC-ODS Waiver status and COVID-19 death rate as described in the methods section and Appendix. Standard errors clustered at the county level are reported in parentheses. \* p<0.05; \*\* p<0.01

Table 6 shows that when controlling for county-level time-varying and time-persistent factors, Proposition 64 had the following statistically significant effects (unless otherwise noted):

- Proposition 64 was associated with a 17.7% decrease in CUD admissions.
- Proposition 64 was associated with a 12.8% decrease in CUD admissions for 12-25 year olds, and a 15.6% decrease in admissions for adults age 26+. We conducted a chi-square test to determine if

Proposition 64's impact on admissions for youth was statistically significantly different from the effect for adults. We found that Proposition 64's impacts on youth admissions was not statistically significantly different from its impacts on adults (p=0.6497).

- Proposition 64 was associated with a 17.9% decrease in admissions for White Non-Hispanics, a 0.1% decrease (not statistically significant) for Black non-Hispanics, and a 12.7% decrease for Hispanics. We conducted chi-square tests to evaluate if Proposition 64's impact on admissions was statistically significantly different by racial/ethnic group. We found that Proposition 64's impact on Black Non-Hispanic admissions was significantly different from its impact on White Non-Hispanic admissions (p<0.01) and Hispanic admissions (p<0.05). Its impact on White Non-Hispanic admissions was not significantly different from its impact on Hispanic (p=0.3253) admissions.
- Proposition 64 was associated with an 18.5% decrease in Criminal Justice CUD referrals and a 10.8% decrease in non-Criminal Justice CUD referrals (not statistically significant). We conducted a chi-square test to determine if Proposition 64's impact on Criminal Justice and non-Criminal Justice admissions was statistically significantly different. We found that Proposition 64's impact on Criminal Justice referrals was not statistically significantly different from its impact on non-Criminal Justice referrals (p=0.2592).

**Proposition 64's implementation was associated with statistically significant decreases in 90-day treatment retention and successful discharge rates in CUD treatment. However, due to other developments related to cannabis policy and SUD treatment in California, it is unclear if the observed changes were caused by Proposition 64 or other factors.**

Table 7 presents the OLS regression results estimating the association between Proposition 64, 90-day treatment retention, and successful discharge status (all results statistically significant).

Table 7 Association Between Proposition 64, 90-Day Retention, and Successful Discharge		
	90-Day Retention	Successful Discharge
Proposition 64	-0.1843** (0.0572)	-0.1568** (0.0587)
N	7329	7329
NOTES: OLS estimates from equation in the text are presented. Data on outcomes presented come from CalOMS-Tx for the years 201-02020. Observations are at the county-month-year level. Each column is a separate regression, and the natural log of each outcome is taken. Regressions include controls for DMC-PDS Waiver status and COVI-19 death rate as described in the methods section and Appendix. Standard errors clustered at the county level are reported in parentheses. * p<0.05; ** p<0.01		

Table 7 shows that when controlling for county-level time-varying and time-persistent factors:

- Proposition 64 was associated with an 18.4% decrease in 90-day retention rates among patients receiving CUD treatment.
- Proposition 64 was associated with a 15.7% decrease in successful discharges among patients receiving CUD treatment.

## Key Findings and Recommendations

Given the numerous significant developments in cannabis policy and substance use disorder treatment nationally and within the state, it is difficult to ascertain to what degree the observed changes in cannabis use, frequent cannabis use, CUD, and CUD treatment in California can be attributed to Proposition 64 or to other causes. Nonetheless, these data provide several key insights regarding cannabis use, cannabis use disorder treatment, and health in California over the past decade. In particular:

- Since 2010, cannabis use and frequent cannabis use have been increasing in California, and some data indicate that there have been substantive increases in frequent cannabis use in recent years. Rates of CUD have remained steady over the past decade.
- Cannabis use has become more prevalent across demographic groups since 2010. There are signs that use may be levelling off or even starting to decline among youth and Black Non-Hispanics, while it



has continued to increase among adults and White Non-Hispanics. However, these increases have not led to documented increases in the prevalence of CUD.

- Some data indicate that frequent cannabis use has been increasing among adults since 2016.
- Though rates of CUD have remained steady since 2010, admissions to publicly funded CUD treatment have been declining since 2010. This decline has been accelerating since 2016.
- Criminal justice referrals to CUD treatment have been decreasing significantly, and at a faster rate than non-criminal justice referrals since 2016. Due to other developments related to cannabis policy and SUD treatment in California, it is unclear if the observed changes were caused by Proposition 64 or other factors.
- Proposition 64's passage in 2016 was associated with a significantly greater decline in CUD admissions for White Non-Hispanics and Hispanics than Black Non-Hispanics. Due to other developments related to cannabis policy and SUD treatment in California, it is unclear if the observed changes were caused by Proposition 64 or other factors.
- Both treatment retention and successful discharge rates declined in publicly funded CUD treatment in California over the past decade. Proposition 64's passage in 2016 was associated with a statistically significant 18.4 percent decrease in 90-day treatment retention and a statistically significant 15.7 percent decrease in successful discharges. Due to other developments related to cannabis policy and SUD treatment in California, it is unclear if the observed changes were caused by Proposition 64 or other factors.

Based on these findings, the Department of Cannabis Control, policymakers, and regulators could consider the following as they develop future policies and programs related to cannabis:

- It is encouraging that CUD rates have not been increasing dramatically in California. However, given that rates of use and frequent use are increasing, it is possible that many Californians are using cannabis in a manner that could lead to CUD in the future. California law stipulates that a significant portion of the funds generated from cannabis sales be deposited in a Youth Education, Prevention, Early Intervention, and Treatment Account that the California Department of Health Care Services can use to educate youth, prevent SUD, and prevent harm from substance use.<sup>32</sup> Given trends in cannabis use and frequent use, such programming will likely be essential to help California avoid increases in CUD like those detected in other states.<sup>33</sup> Funds for education, prevention, and prevention of harm need to be preserved, and directed to the Department of Health Care Services to be utilized as intended by Proposition 64.
- There are indications that cannabis use and frequent use are becoming more prevalent, so state policymakers and local jurisdictions need to take evidence-based steps to prevent problem cannabis use. In particular, lessons from alcohol and tobacco regulation can be adapted into policies that protect public health in the age of cannabis legalization. Some of these measures may include requiring health warnings on cannabis products, informing vulnerable groups about the risks of cannabis use, limiting cannabis marketing and product diversification, and taking steps to avoid the emergence of profit-driven cannabis markets that are likely to promote use.<sup>34</sup>
- While the youth education, prevention, early intervention, and treatment funding generated by Proposition 64 can help mitigate the negative impacts of legalization for youth, the more profound increases in frequent use have been among adults. Given the increases in use among adults, policymakers may want to consider developing strategies to generate dedicated funding to education, prevention, and treatment related to problematic cannabis use among adults that mirror those that have already been set aside for youth.

<sup>32</sup> Assembly Bill 64, accessed from [https://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=201720180AB64](https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB64)

<sup>33</sup> Cerda et al., 2020.

<sup>34</sup> Getting It Right from the Start. *Principles for Protecting Youth, Public Health, & Equity in Cannabis Regulation*. [https://gettingitrightfromthestart.org/wp-content/uploads/2021/03/Principles-for-Protecting-Youth-Public-Health-and-Equity-in-Cannabis-Regulation\\_2021.pdf](https://gettingitrightfromthestart.org/wp-content/uploads/2021/03/Principles-for-Protecting-Youth-Public-Health-and-Equity-in-Cannabis-Regulation_2021.pdf)



# Appendix

- Cannabis Use Disorder (CUD) is defined as marijuana abuse or marijuana dependence, as defined by the NSDUH, based on the criteria in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*, 4<sup>th</sup> edition (DSM-IV) (1994). Though more recent definitions of cannabis use disorder were included in the DSM-V (2013), the NSDUH uses DSM-IV definitions since those are consistent across time (both before and since 2013). The DSM-IV classified an individual as being dependence on marijuana if they meet three or more of the following six dependence criteria: (1) spent a great deal of time over a period of a month getting, using, or getting over the effects of the substance; (2) used the substance more often than intended or was unable to keep set limits on the substance use; (3) needed to use the substances more than before to get desired effects or noticed that the same amount of substance use had less effect than before; (4) inability to cut down or stop using the substance every time the individual tried or wanted to; (5) continued to use the substance even though it was causing problems with emotions, nerves, mental health, or physical problems; (6) the substance reduced or eliminated involvement or participation in important activities. It defines marijuana abuse as meeting one or more of the following criteria but not having met the above criteria for dependence: (1) serious problems at home, work, or school caused by the substance, such as neglecting children, missing work or school, doing a poor job at work or school, or losing a job or dropping out of school; (2) used the substance regularly and then did something that might have put one in physical danger; (3) use of the substance caused one to do things that repeatedly get one in trouble with the law; (4) had problems with family or friends that were probably caused by using the substance and continued to use the substance even though one thought the substance use caused the problem.<sup>36</sup>
- CUD treatment is defined in CalOMS-Tx as individuals who indicate that marijuana/hashish is their primary alcohol or drug problem at admission to a publicly funded SUD treatment program.<sup>37</sup>
- Client age is derived from CalOMS-Tx using the date that each treatment episode begins and each client's date of birth.<sup>38</sup>
- Client race/ethnicity is defined from the CalOMS-Tx race and ethnicity variables. Clients are defined as White/Non-Hispanic if they are classified as "White/Caucasian" in the CalOMS-Tx race variable and "Not Hispanic" in the ethnicity variable. They are classified as Black/Non-Hispanic if they are classified as "Black/African American" in the CalOMS-Tx race variable and "Not Hispanic" in the ethnicity variable. Clients are classified as "Hispanic" if they indicate that they are Mexican/Mexican American, Cuban, Puerto Rican, or Other Hispanic/Latino in the CalOMS-Tx ethnicity variable. Clients are classified as "Other Race/Ethnicity" if they do not meet any of the three criteria listed above. These clients are classified together in one category because their numbers are very small compared to the other groups if listed individually.<sup>39</sup>
- Criminal justice referrals are defined as referrals in CalOMS-Tx that come from Probation/Parole, Post-Release Community Supervision (AB 109), DUI/DWI, Adult Felon Drug Court, Dependency Drug Court, and Court/Criminal Justice.<sup>40</sup>
- Treatment retention is defined in CalOMS-Tx as SUD treatment episodes that occur in outpatient or intensive outpatient treatment (non-residential outpatient treatment/recovery/outpatient drug free or non-residential outpatient day program intensive/day care rehabilitative use for intensive outpatient/ day care rehabilitative) levels of care and have at least 90 days between their admission and discharge date.<sup>41</sup> Treatment retention is only measured for non-methadone outpatient levels of care, since

<sup>36</sup> Center for Behavioral Health Statistics and Quality. (2020). *2019 National Survey on Drug Use and Health: Methodological summary and definitions*. Rockville, MD: Substance Abuse and Mental Health Services Administration.

<sup>37</sup> California Department of Health Care Services. (2014). *The California Outcomes Measurement System Treatment (CalOMS Tx) CalOMS Tx Data Dictionary, File Version 2.0, File Version 2.1 (LGBT)*. Sacramento, CA: California Department of Health Care Services.

<sup>38</sup> California Department of Health Care Services. 2014.

<sup>39</sup> California Department of Health Care Services. 2014.

<sup>40</sup> California Department of Health Care Services. 2014.

<sup>41</sup> California Department of Health Care Services. 2014.

residential treatment episodes are often longer because treatment participation provides housing, and methadone treatment is often an ongoing service rather than a short-term treatment episode.

- Treatment success is defined in CalOMS-Tx as treatment episodes with a discharge status of “completed treatment/recovery plan, goals/referred/standard”, “completed treatment/recovery plan, goals/not referred/standard”, “left before completion with satisfactory progress/standard” or “left before completion with satisfactory progress/administrative.”<sup>42</sup>

**testimony and supp. doc. 1-2.pdf**

Uploaded by: Debra Roy

Position: UNF

## Recreational Marijuana Testimony to Md Senate Economics Committee- SB0516 - Winter 2023

Honorable committee members, thank you for this opportunity to testify. I am Debra Roy, the Vice President of the Chemical Sensitivity Disorders Association, a charter member of GASP (Group Against Smokers Pollution), a retired Civil Servant belonging to NARFE (the National Active and Retired Federal Employee Association) and a new member of Who Is Who in America. I am here to request that the state prohibit the smoking and vaping of marijuana, limit recreational edibles to 2 mg of THC per package and set the legal age to use recreational marijuana at 25. Nobody should have to breathe secondhand marijuana smoke or vapor at work, in public or where they live. Secondhand marijuana smoke contains all the toxins of tobacco smoke plus 3.5 times more particulate matter, 20 times more ammonia, 3 -5 times more hydrogen cyanide and THC, an intoxicant (Sup. Doc. #7). Ammonia and hydrogen cyanide are irritants. People with chemical sensitivities are extraordinarily sensitive to irritants. Here is the chart of the cannabinoid pathway of a person with chemical sensitivities (Sup. Doc. #1). Twenty-one of the thirty-four genes in this pathway are impaired. This chart represents a person who is a slow metabolizer of cannabinoids. As a result upon exposure, this person will experience a back up of cannabinoids. Consequently this person will be adversely affected with conditions like chronically recurring sinus infections and severe asthma attacks at much lower levels of exposure than people with normal genes and will take a longer period of time to clear the toxins from his body. One thing that the anti-smoking movement has established is that smokers do not have the right to make others sick. Ethically and legally society has an obligation to protect sensitive people from harm. Exposure to tobacco smoke is a nightmare for people with chemical sensitivities. Soon marijuana smoke will be an even bigger nightmare for them. Presently people with chemical sensitivities are having problems finding affordable smoke-free housing. The introduction of marijuana smoke into this environment will worsen the situation, causing some sensitive people to become homeless. Last year a state senator and delegate representing P.G. County received complaints from various constituents about being sickened by neighbors' marijuana smoke drifting onto their property. And no wonder they complain, the marijuana smoke smells like skunk!(Sup. Doc #2).

The secondhand smoke exposure from marijuana is more hazardous than tobacco smoke. People, even non-sensitive people, who are exposed to secondhand marijuana smoke can have detectable levels of THC in their blood and urine (Sup. Doc. #7). They can even become intoxicated by the exposure. Particulate concentrations created by dabbing and vaping can create levels of indoor air pollution similar to those seen in extreme pollution events like wildfires and extreme industrial pollution (Sup. Doc. #8). Exposures at these concentrations cause cardiovascular and respiratory diseases. ALLOWING MARIJUANA SMOKING AND VAPING LOUNGES WILL VIOLATE OCCUPATIONAL AND HEALTH REGULATIONS THAT REQUIRE EMPLOYERS TO PROVIDE THEIR EMPLOYEES WITH A SAFE WORKPLACE (Sup. Doc. #7). A Nov 2022 Radiology study entitled "Chest CT Findings in Marijuana Smokers" reported higher rates of emphysema and airway inflammation in marijuana smokers than tobacco-only smokers (Sup. Doc. #3).

In the July 2022 edition of the medical Journal Lancet (Sup. Doc # 4), British mental health experts warned that cannabis is not a harmless drug, but is linked to psychosis and addiction. Therefore IT SHOULD NOT BE TREATED AS AN ORDINARY COMMODITY IN THE MARKETPLACE. PEOPLE WHO DAILY USE MARIJUANA WITH OVER TEN PERCENT THC WERE FIVE TIMES MORE LIKELY TO BE DIAGNOSED WITH PSYCHOSIS COMPARED TO THOSE WHO NEVER USED THE DRUG. Most tragic are the young people who commit suicide as well as those who develop schizophrenia as a result of using marijuana. There is no way, at present, to identify those people who are at risk of developing schizophrenia or becoming suicidal. Had they not used marijuana in the first place, they could have gone through life without developing schizophrenia or becoming suicidal. Marijuana can be highly addictive resulting in cannabis use disorder (CUD). Those with CUD are at higher risk of problems with memory, attention and learning. As a result, in 2014, California

extended Medicaid coverage to low-income individuals so they could have access to CUD treatment (Sup. Doc #6). Here is an example of how addictive cannabis use can be. My friend's 20 something son-in-law was a marijuana vaper. Then he caught viral pneumonia. That landed him in the ICU and he almost died. When he recovered and was released from the hospital, he was warned that if he resumed vaping, it would kill him. He stopped vaping for about a year and now he has resumed vaping marijuana.

One of the things that sets marijuana smoking apart from tobacco smoke is the fact that marijuana is intoxicating. Tobacco smoking has been identified as a cause of many home and forest fires. (see Laurel library sign- Sup. Doc, #1). The Laurel library put out this sign because tobacco smokers were throwing their lit butts in the mulch, causing fires and necessitating calls to the fire department. When a marijuana smoker finishes a joint, he is high and not aware of what he does with the lit butt. This will cause even more house, multifamily dwelling, and forest fires. Vaping devices are also a fire hazard because they sometimes explode, causing fires and bodily harm (Sup. Doc #9). There will be even more loss of life resulting from these all fires. Additionally the fires will contribute to global warming. Since environmentalists are concerned about how much cows contribute to global warming, I cannot help but wonder how much just lighting up marijuana joints will add to global warming.

Another problem posed by discarded marijuana butts is animal poisonings. According to a December 31, 2022 New York Times article (Sup. Doc.#7), DOGS ARE BEING POISONED AS A RESULT OF INGESTING DISCARDED MARIJUANA BUTTS. Symptoms include uncoordinated gait, dribbling urine and an exaggerated reaction to normal stimuli. Severe cases progress to respiratory depression, seizures and occasionally death. From 2020 to 2021 there was a 60 percent increase in marijuana toxicity in pets. Pet owners would not have supported the legalization of recreational marijuana had they known the harm marijuana poses to their pets and the costs associated with treatment.

Marijuana smoking is a problem at both colleges and high schools (see Bowie State University Sup. Doc.#1 ). At college the problem is not only in the classroom, but also in polluted dormitories. Just think of trying to study in an environment that is irritating, hallucinogenic and interferes with attention, memory and learning. "Getting it right from the Start"(Sup. Doc.#4) gives us this caution : "We have a collective responsibility to protect children and youth from harm to the developing brain. OF PARTICULAR CONCERN IS THE IMPACT OF LEGALIZATION ON YOUTH BELOW THE AGE OF 25, BECAUSE RESEARCH SUGGESTS THAT USE AMONG YOUTH CARRIES SPECIAL RISKS TO THE DEVELOPING BRAIN that are not present for older adults...DAILY USE OF CANNABIS BY HIGH SCHOOL STUDENTS HALVES THE HIGH SCHOOL GRADUATION RATE; and DAILY USE OF CONSUMPTION OF CANNABIS WITH OVER 10% THC ...IS ASSOCIATED WITH A FIVE FOLD INCREASE IN THE ODDS OF DEVELOPING PSYCHOSIS, A HEARTRENDING BURDEN FOR FAMILIES AND AN EXPENSIVE AND COMPLEX BURDEN FOR COMMUNITIES... YOUNG ADULT MARIJUANA USE IS AT A 35 YEAR HIGH, AND DAILY MARIJUANA USE AMONG ST 8TH,10TH AND 12TH GRADERS HAS ALSO RISEN PRECIPITOUSLY." According to the CDC: "IN A SINGLE YEAR, THE VAPING EPIDEMIC... HOSPITALIZED OVER 2,700 AND KILLED 68". Because of their experience with vaping, CONTRA COSTA COUNTY, CALIFORNIA HAS BANNED ALL CANNABIS AND TOBACCO VAPING KPRODUCTS (Sup. Doc. #4). States legalizing cannabis have seen a bigger increase in hospitalizations and poison control visits than other states. States that have legalized cannabis have seen an increase in teenagers getting asthma. There is also concern about parents exposing their children to secondhand marijuana smoke. According to Leana Wen the former Baltimore Health Commissioner, there is abundant research showing that EXPOSURE TO MARIJUANA DURING CHILDHOOD IMPACTS LATER ABILITY, INCLUDING MEMORY, ATTENTION, MOTIVATION AND LEARNING (Sup. Doc#6). These facts make it very clear that any profits derived from the sale

of cannabis are literally going to go up in smoke. TAX REVENUES WILL BE OFFSET BY HARM TO MENTAL HEALTH, YOUTH DEVELOPMENT AND EDUCATION THAT COME AT GREAT COST TO FAMILIES, EMPLOYERS AND GOVERNMENT. THOSE COMMUNITIES MOST NEGATIVELY AFFECTED BY THE WAR ON DRUGS WILL ALSO BE THE ONES MOST NEGATIVELY AFFECTED BY RECREATIONAL MARIJUANA USE (Sup. Doc#5 –Evaluation Report p.6).

Vaping and dabbing can be the source of harmful chemical exposures. Vaping is not odorless. One study described dabbing as smelling acrid and more like smoke. Vaping was described as smelling like unheated cannabis. THE DEGRADATION PRODUCTS that result from heating marijuana mixtures include acrolein and methacrolein, which ARE HIGHLY IRRITATING TO THE EYES AND RESPIRATORY SYSTEM. Dabbing and vaping cannabis can create levels of indoor air pollution that are hazardous to human health, in the absence of actual combustion. AEROSOLS FROM VAPING CONTAIN HEAVY METALS AND ULTRA FINE PARTICLES. IF SOMEONE ELSE IS VAPING IN THE SAME AREA , YOU ARE BREATHING IT – THOSE PARTICLES ARE ENTERING YOUR LUNGS WHERE THEY CAN DO DAMAGE (Sup. Doc. #8).

A February 19,2023, Washington Post article reports that AMSTERDAM PLANS TO BAN MARIJUANA SMOKING ON THE STREET STARTING THIS MAY (Sup. Doc. #7). According to the article, the “drug-fueled atmosphere at night makes the neighborhood unsafe”. This is echoed in what a girlfriend, who has a master degree in the public health, wrote me recently about her experience with marijuana smokers in her neighborhood. After the referendum to legalize recreational marijuana in Maryland passed, she states:”It took no time at all for some folks to become more emboldened to smoke in public. For the first time, really, I’m afraid in my parking lot at home as we have several who just smoke in their cars for hours. Believe it or not even in the morning when no one is around, the smell just exudes out of the car. I have experienced contentious interactions with those who smoke pot which seem to indicate much less controlled and more volatile emotional reactions on their part, such as overly anxious and strongly negative interactions with others. That, in turn, can cause other problems (emotional and physical) for friends and family, as they deal with a user in their life.” Maryland would be very wise to follow Amsterdam’s example and ban marijuana smoking. According to the Post article, MOST CLUBS AND BARS IN AMSTERDAM ALREADY DO NOT ALLOW PEOPLE TO SMOKE ON-SITE.

Then there is the problem of people driving under the influence of marijuana (Sup. Doc.#9). Not only is first hand exposure a problem, but so is second and third hand smoke exposures. A passenger smoking in a car could intoxicate the driver. Additionally the marijuana smoke that accumulates on the surfaces of the car’s interior and is released back into the car long after the original smoking event (aka third hand smoke) can also intoxicate a driver. Proving that a driver is intoxicated by marijuana is also a problem because experts cannot agree on how much marijuana intoxicates a driver. Banning all smoking in vehicles would make a police officer’s job simpler because just swabbing a car’s interior and showing that marijuana is present would be enough to take action. The Cannabis Control Authority of Virginia did a survey of cannabis users. Fourteen percent reported driving under the influence. Even more disturbing, many of them reported they thought using cannabis made them a safer driver. However, it is reported that marijuana causes difficulties in concentration, reduced hand-eye coordination, distortion of time and space, and increased reaction times. Moreover vehicle insurance rates will go up as an increase in impaired driving under the influence of marijuana and related accidents are noted (Sup. Doc. #8). A 2020 AAA STUDY SHOWED THAT THE PERCENTAGE OF DRIVERS IN WASHINGTON STATE INVOLVED IN FATAL CRASHES WHO TESTED POSITIVE FOR MARIJUANA INCREASED 100 PERCENT AFTER THE STATE LEGALIZED RECREATIONAL MARIJUANA USE. Some counties in Maryland already have very high vehicle insurance rates. NON-USERS OF MARIJUANA WILL LOSE THEIR ENTHUSIASM



FOR RECREATIONAL MARIJUANA WHEN THEIR CAR INSURANCE RATES GO UP OR EVEN WORSE THEY ARE HIT BY A MARIJUANA IMPAIRED DRIVER.

EFFECTIVE JULY 1 OF THIS YEAR, VIRGINIA IS GOING TO LIMIT THC TO 2 MG PER PACKAGE FOR MARIJUANA EDIBLES because of a spike in accidental THC overdoses in children over the past year. A 4 YEAR OLD BOY RECENTLY DIED IN VIRGINIA AS A RESULT OF EATING HIGH POTENCY MARIJUANA GUMMIES AND CONSEQUENTLY HIS MOTHER IS ON TRIAL (Sup. Doc.#10). If Maryland were to adopt the same standard for recreational edibles from the start, not only would more children be protected, but it would also protect the medical marijuana sector from competition from the recreational marijuana sector. Maryland would do well to learn from the success and failures of other places in this new venture.

Another bill being considered in this legislative session, SENATE BILL 652 – Criminal Law-Felony Murder – Limitation for Youth (Youth Accountability and Safety Act), prohibits a person from being convicted of murder in the first degree if they are under the age of 25 because their brains are not fully developed (Sup. Doc. #10). By the same token, people under the age of 25 should be prohibited from using marijuana for recreational purposes. IF YOU EXCUSE PEOPLE FROM MURDER BECAUSE THEY ARE UNDER 25 THEN YOU SHOULD NOT ALLOW PEOPLE UNDER THE AGE OF 25 TO SMOKE MARIJUANA BECAUSE OF THE PROFOUND DAMAGE MARIJUANA DOES TO THE IMMATURE BRAIN.

According to the JAMA article “Assessment of Incorporation of Lessons learned from Tobacco Control in City and County Laws Regulating Legal Marijuana in California” (Sup. Doc.#6) policy lessons from tobacco control and other legal but harmful products went largely unheeded by cities and counties. COMMUNITIES MAY WISH TO CONSIDER PRECAUTIONARY INCORPORATION OF THESE POLICY LESSONS INTO MARIJUANA REGULATION FROM THE START, POTENTIALLY REDUCING THE RISK OF FAILING OUR RESPONSIBILITY TO PROTECT YOUTHS AND HEALTH CONSEQUENCES FOR DECADES TO COME.” According to a Politico article (Sup. Doc.#6) “many in the public health world are frustrated that policymakers, eager to get on with legalization, missed the opportunity to mitigate the consequences in advance.” Those of us from GASP are here to ask you to heed the lessons learned from tobacco control and from other localities that have already legalized recreational marijuana and prohibit marijuana smoking and vaping in Maryland, limit THC in edibles to 2 mg. and set the legal age to start using these products at 25. You are a financial committee making health decisions. Before you unleash the serious and long lasting health consequences of this Pandora’s box of recreational marijuana on the general public, it would be wise to form a committee of doctors and public health experts to study this problem and advise you on how to proceed.

If you wish to contact me for further discussion please email me at [Debbieroy44@gmail.com](mailto:Debbieroy44@gmail.com) or call me at (301) 725-5482.

Cannabinoid Pathway				
SNP ID	SNP Name	Risk Allele	Your Alleles	Your Results
rs35070995	ABP1 A678H	C	AA	-/-
rs2494732	AKT1 A27890G	C	TT	-/-
rs806381	CNR1 A88865901G	A	AA	+/+
rs12528858	CNR1 A88867488G	G	AA	-/-
rs806378	CNR1 C88859551T	T	CC	-/-
rs1049353	CNR1 T453T	T	CT	+/-
rs806368	CNR1 T88850100C	C	CT	+/-
rs806374	CNR1 T88857320C	T	CT	+/-
rs806376	CNR1 T88858648C	C	CT	+/-
rs806377	CNR1 T88858723C	T	CT	+/-
rs6454674	CNR1 T88872930G	T	TT	+/+
rs492602	FUT2 A12190G	G	AG	+/-
rs601338	FUT2 G12447A	A	AG	+/-
rs602662	FUT2 G12758A	A	AG	+/-
rs6672995	NLRP3 247621033G>A	A	GG	-/-
rs17221417	NOD2 13533C>G	G	CG	+/-
rs5743289	NOD2 30725C>T	T	CT	+/-
rs2066844	NOD2 Arg675Trp	T	CC	-/-
rs3782905	VDR C37648G	C	CG	+/-
rs2189480	VDR C39987A	T	GT	+/-
rs2238136	VDR C48277713T	T	CC	-/-
rs12717991	VDR G44689A	T	CC	-/-
rs1540339	VDR G46489A	T	CC	-/-
rs2239185	VDR G48244559A	A	AG	+/-
rs886441	VDR G48262964A	G	AG	+/-
rs10783218	VDR G48272743A	A	GG	-/-
rs2853564	VDR G48278487A	G	AA	-/-
rs4237855	VDR G48287203A	A	AG	+/-
rs7975232	VDR G64978T	A	AC	+/-
rs7136534	VDR G9189A	G	CT	-/-
rs2239179	VDR T48257766C	C	CT	+/-
rs11574129	VDR T66512C	G	AA	-/-
rs731236	VDR TAQ	A	AG	+/-
rs1544410	VDR VDR:BsmI	T	CT	+/-





**NOTICE**



**Marijuana  
smoking  
prohibited.**

I STILL WEAR IT, BUT MAINLY TO BLOCK THE WEED SMELL.



P. BYRNES.

BY PAT BYRNES

[caglecartoons.com](http://caglecartoons.com)

WASHINGTON POST 3/4/23

# **SB0516 Testimony.pdf**

Uploaded by: Ian Swain

Position: UNF



# The inevitable consequence of Bill SB 516 Cannabis Reform on Life, Liberty and the Pursuit of Health and Happiness. - Copia

Good day US Rep KWEISI MFUME and accompanying representatives and delegates.

After 27 years of my brothers and sisters in Baltimore being criminalized and persecuted for wanting pain and anxiety relief in a cold, harsh city, I, Ian Alexander Swain of Sound Mind, did not expect to be writing in protest about a progressive cannabis reform. I definitely didn't expect to be forced back into the status of an illegal medical cannabis user. As a individual dealing with a frustrating form of epilepsy that has at times left me without voluntary motor function, the ability to fully express my bladder, involuntary essential tremors, palsy, and left me lame in my legs for more than a year. Cannabis is a significant part of my wellness plan and the medical cannabis pay for wellness scheme was already a disgusting hurdle for patients in my honest opinion. As a resident of Baltimore and life long native, you, my representatives, have failed me. You have failed my fellow residents and you have failed yourselves, defeating the chance of ever being able to say, "I did right by my constituents, I helped Baltimore inch towards a more peaceful, healthy space."

"I can be proud of myself. "

Signed,

Ian Alexander Swain

21214 Resident

CBD, CBG, CBN, CBC, and a number of other crucial cannabinoids and NECESSARY for my health and wellness that would be made illegal for me to have simple, adult restricted access too.

Attached are lab reports for products that are crucial to my right to the pursuit of happiness and within that the right to pursue my best wellness plan.

I expect a tax in some way, I expect strict regulations, I didn't expect a health risk being reintroduced.

 MCT-for-Posting-OFTKL2250-221... 706 kB

 MCT-GUMBB5-Various-Lots-Exp-... 814 kB



# **Joint Letter Opposition ALA Heart Cannabis Reform**

Uploaded by: Laura Hale

Position: UNF



Joint Letter American Lung Association and American Heart Association House Bill 556  
Economic Matters  
February 17, 2023  
Opposition

Chair Wilson and Members of the Committee:

Thank you for the opportunity to provide comments on House Bill 556, Cannabis Reform. The American Lung Association and American Heart Association currently do not have a position on the legalization of recreational marijuana however, we are **opposed** to the section beginning on page 50 which would allow for the on-site consumption of marijuana indoors and the creation of food establishments that can allow onsite consumption by way of permitting. By allowing for the consumption of marijuana indoors it would significantly undermine the strong protections outlined in Maryland's Clean Indoor Air Act.

The American Lung Association is the leading organization working to save lives by improving lung health and preventing lung disease, through research, education and advocacy. The work of the American Lung Association is focused on four strategic imperatives: to defeat lung cancer; to improve the air we breathe; to reduce the burden of lung disease on individuals and their families; and to eliminate tobacco use and tobacco-related diseases.

The American Heart Association is a relentless force for a world of longer, healthier lives. We are dedicated to ensuring equitable health in all communities. Through collaboration with numerous organizations, and powered by millions of volunteers, we fund innovative research, advocate for the public's health and share lifesaving resources.

The American Lung Association and American Heart Association strongly believe that the use of marijuana should be prohibited in all places where the smoking of other tobacco products are prohibited. We have continued to fight for laws and policies to make our communities in Maryland and across the country smokefree. All Americans deserve to live, work, study and play in smokefree environments. By implementing smokefree environments, all workers and patrons can be protected from the dangers of all types of secondhand smoke, including marijuana smoke.

The current Clean Indoor Air statute in Maryland, has a significant loophole by not currently including the use of electronic smoking devices. Under House Bill 566 as drafted it could potentially exacerbate this loophole and allow for the vaping and smoking of marijuana

indoors. The American Lung Association and American Heart Association are extremely concerned by this and the potential exposure to harmful secondhand smoke and aerosol to Marylanders. Since marijuana smoke harms lung health, the American Lung Association opposes the inhalation of smoke or aerosol of marijuana. The American Lung Association and American Heart Association supports measures to require totally smokefree environments, including prohibiting the smoking or vaping of marijuana.

Secondhand marijuana smoke contains many of the same toxins and carcinogens found in directly inhaled tobacco smoke. The toxins can cause lung irritation, asthma attacks, and make respiratory infections more likely. Exposure to secondhand marijuana smoke can exacerbate health problems especially for people with respiratory conditions like asthma, bronchitis, or COPD.

House Bill 556 could also be outside the scope of what Marylanders thought they voted for on the 2022 ballot. [The ballot measure description stated](#), *“Do you favor the legalization of the use of cannabis by an individual who is at least 21 years of age on or after July 1, 2023, in the State of Maryland?”*. At the time voters most likely didn’t know that this legalization would include allowing onsite indoor consumption and exposure to secondhand smoke or the possibility of drifting smoke into their neighboring businesses or residences.

The U.S. Surgeon General has concluded that there is no safe level of exposure to toxic secondhand smoke.<sup>1</sup> The U.S. Surgeon General has also concluded that separating smokers from nonsmokers, cleaning the air, and ventilating buildings cannot eliminate exposure of nonsmokers to secondhand smoke. In addition, in a 2016 report, the Surgeon General concluded that secondhand e-cigarette emissions contain, “nicotine; ultrafine particles; volatile organic compounds such as benzene, which is found in car exhaust; and heavy metals, such as nickel, tin, and lead.”<sup>2</sup> The only effective way to fully protect nonsmokers from exposure to secondhand smoke and aerosol is to completely eliminate smoking and vaping in indoor public spaces.<sup>3</sup> We would request the bill be amended to ensure that marijuana cannot be consumed on site in food establishments that seek an exemption.

The American Lung Association and American Heart Association thanks the Maryland General Assembly for their continued commitment to the health and wellbeing of the residents of Maryland and urges the committee to amend the section that would allow for indoor consumption of marijuana in any venue in the bill as it moves forward.

Sincerely,

Aleks Casper

L. Hale

Aleks Casper  
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Laura Hale  
Director of Government Relations  
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<sup>1</sup>U.S. Department of Health and Human Services (HHS). *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006.

<sup>2</sup> U.S. Department of Health and Human Services. *E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General—Executive Summary*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

<sup>3</sup>HHS, 2006.

**SB 516\_MDCC\_Cannabis Reform\_INF.pdf**

Uploaded by: Andrew Griffin

Position: INFO



**LEGISLATIVE POSITION:**  
**Letter of Information**  
**Seante Bill 516**  
**Cannabis Reform**  
**Senate Finance Committee**

**Thursday, March 9, 2023**

Dear Chairwoman Griffith and Members of the Committee:

Founded in 1968, the Maryland Chamber of Commerce is the leading voice for business in Maryland. We are a statewide coalition of more than 6,400 members and federated partners working to develop and promote strong public policy that ensures sustained economic health and growth for Maryland businesses, employees, and families.

As the policy debate surrounding the legal adult-use of cannabis has evolved, Maryland employers have anxiously watched the regulatory rollout in other states and the successes and challenges they have experienced. The primary concern to Maryland businesses has been ensuring that safeguards will be put in place, should Maryland voters choose legalization, to give employers access to every available tool to maintain a safe environment for their employees and customers.

As introduced, SB 516 establishes the regulatory, licensing and taxation system for the adult-use cannabis industry in Maryland. The Maryland Chamber of Commerce submits this letter not having a policy position on the entirety of SB 516 and its licensing and regulation of a specific but new industry, however, **Maryland businesses are very supportive of the language in Subtitle 13, Section 36-1301(F) contained in the bill as introduced** enshrining an employer's right to maintain drug testing policies and utilize the most current methods of testing to make decisions about workplace safety. Although, the Chamber is greatly concerned over the recent decision by the House to remove the important employer protection and workplace safety language from House Bill 556.

If these protections are removed, the use of drug free workplace policies, drug screening during a hiring process and drug testing during workplace accidents will all be called into question creating enormous confusion and liability for Maryland's job creators. This would jeopardize even the most basic safety protocols used by employers like maintaining a drug-free workplace. Maryland businesses simply want access to the tools and protocols they're already using to keep themselves, their employees, and their customers safe. A study done by the National Institute on Drug Abuse showed that workers that tested positive for cannabis had 55% more industrial

accidents, 75% more absenteeism, and 85% more injuries than employees who tested negative. Cannabis impacts depth perception, motor skills, and reaction time, causing adverse and sometimes fatal outcomes, especially for those in safety-sensitive industries like health care and construction.<sup>1</sup> Those accidents and injuries can be avoided by protecting an employer's ability to promote safety and screen for dangerous situations.

The Maryland Chamber of commerce values the hard work that has gone into SB 516, and we acknowledge the importance of maintaining safe workspaces for employees, employers and customers. We appreciate your consideration of these comments on **SB 516**.



**SB 516 cannabis LOI MDDCSAM joint testimony.pdf**

Uploaded by: Anita Reddy

Position: INFO



*MDDCSAM is the Maryland state chapter of the American Society of Addiction Medicine whose members are physicians and other health providers who treat people with substance use disorders.*

**SB 516 Cannabis Reform** Senate Finance Committee, Senate Budget & Tax Committee  
March 9 2023.

## **LETTER OF INFORMATION**

This testimony is on behalf of the Maryland-DC Society of Addiction Medicine (MDDCSAM), the Maryland Public Health Association (MdPHA), and the National Council on Alcoholism and Drug Dependence, Maryland chapter (NCADD). Some of these groups are submitting identical testimony under their own letterhead. We commend Maryland lawmakers' efforts to thoughtfully balance the considerable benefits of cannabis legalization against the foreseeable public health harms. We recognize and appreciate that cannabis legalization will result in a profound reduction in serious harms related to over-criminalization. We are writing to ensure that the foreseeable public health harms are understood and to suggest ways to minimize them.

Experience in other states suggests that legalization will increase cannabis use,<sup>1,2,3</sup> daily cannabis use,<sup>4</sup> and the use of high-potency (i.e., high THC content) cannabis products,<sup>5,6</sup> and will increase the prevalence of cannabis-related harms among some individuals.

Most people who use cannabis do not experience problems. However, cannabis-related harms are not rare and will become more common after legalization. The most significant potential harms are an increased prevalence of cannabis use disorder (CUD, sometimes called cannabis addiction) and of cannabis-related mental health conditions. At the end, we suggest several amendments that are informed by the information below.

## **CANNABIS USE DISORDER (CUD)**

Approximately 22% of those who use cannabis develop CUD.<sup>7</sup> The risk is quite low (on the order of 2-4%) for those using less than monthly, but is much higher (on the order of 30-50%) for those using daily.<sup>8</sup> The risk is greater the younger the age at starting cannabis use.<sup>7</sup> About one-in-ten of all people seeking treatment for any substance use disorder are seeking treatment for CUD.<sup>9</sup> About 20% of adolescents develop CUD within four years of beginning cannabis use.<sup>10</sup>

CUD can be broadly defined as the loss of control over cannabis use even when it causes significant and sustained impairment in functioning. Specific criteria for diagnosis are found in the American Psychiatric Association's Diagnostic and Statistical Manual, 5<sup>th</sup> Edition (DSM-5). Like other substance use disorders, CUD significantly impairs a person's ability to function in psychological, behavioral, social, educational, and/or vocational domains.

Cannabis legalization laws are associated with a 20% increase in the rate of cannabis use by adults<sup>3</sup> and with a 25% increase in the prevalence of CUD in adults.<sup>11</sup> This is consistent with the association of legalization laws with an increase in potential CUD "risk factors," such as electronic drug delivery methods ("vaping," "e-cigarettes"), marketing & promotion, and increased THC content.<sup>12</sup> Legal dispensary products often contain up to 85% THC.

Higher THC concentrations are associated with increased risk of CUD, psychosis, and other negative outcomes.<sup>13,14,15,16,17,18</sup>

Even without CUD, regular cannabis use can potentially result in a host of ongoing impairments that are not always recognized as cannabis-related. Withdrawal symptoms, which can cause significant distress or impairment, can make it difficult to stop using cannabis even in those without CUD. There is reason to believe that practices that make cannabis more easily accessible (e. g., delivery services) will increase cannabis use and the attendant risk of unhealthy use.<sup>19</sup>

## **MENTAL HEALTH EFFECTS**

Acute cannabis use is associated with impaired learning, memory, and motor coordination, as well as decreased ability to plan, organize, solve problems, and make decisions (which are called executive functions). These impairments can lead users of cannabis to make risky decisions.<sup>20</sup> Cannabis intoxication is associated with anxiety, panic attacks, and paranoia, as well as psychosis (delusions, hallucinations), especially in those with a history of psychosis from any cause or who are vulnerable to psychosis.<sup>21</sup> Legalization of cannabis for adult use is associated with increased prevalence of hospitalization for cannabis-associated psychosis.<sup>22</sup>

Long-term regular cannabis use is associated with a number of mental health effects, primarily in those who use at least weekly. A common adverse effect is impaired cognitive performance, including impairments in attention and working memory, information processing speed, and executive functioning,<sup>23</sup> especially in adolescents.<sup>24</sup> Cognitive performance may take months to normalize after cannabis cessation. Regular cannabis use is associated with worsening of anxiety, depression, and bipolar disorder symptoms and increases the likelihood of developing a depressive disorder.<sup>25,26,27</sup> It is also associated with a greatly increased risk of developing first-episode psychosis. The risk is even higher with use of high-potency cannabis (i.e., high THC content).<sup>17</sup> Cannabis use is also associated with a significantly increased risk of suicidal ideation, suicide planning, and suicide attempts.<sup>28</sup>

Long-term regular cannabis use beginning in adolescence is associated with educational, occupational, and social & interpersonal impairments.<sup>24</sup>

## **EFFECTS ON PREGNANCY**

Cannabis legalization is associated with increased cannabis use by women before getting pregnant, during pregnancy, and after giving birth.<sup>29</sup> Prenatal (*in utero*) exposure of the fetus to cannabis is associated with short-term and long-term adverse effects, including low birth weight and neonates small for gestational age.<sup>30</sup> Prospective longitudinal studies suggest that prenatal cannabis exposure is associated with subtle neurobehavioral effects in childhood. The American College of Obstetricians and Gynecologists recommends against cannabis use during pregnancy or breastfeeding.<sup>31</sup> Cannabis legalization is associated with increased rates of hospitalization with cannabis-involved pregnancy.<sup>32</sup>

## **CANNABIS USE WILL LIKELY INCREASE OVER YEARS OR DECADES:**

It is too early to fully assess health effects of legalization laws. Most experts predict that legalization and commercialization will continue to reduce the cost of cannabis products substantially over time.<sup>12,33,34</sup> Since it will take many years for commercial markets to mature, it may not be possible to fully assess their health effects until the 2030s.<sup>35</sup> The removal of cannabis prohibition has already led to a price collapse in multiple states (e.g., at least a 70% drop in wholesale prices in Colorado, Oregon, and Washington).<sup>36</sup> Rates of cannabis use are expected to be price-sensitive, as rates of alcohol and tobacco use are known to be.

## **GUARDRAILS NEEDED AGAINST INDUSTRY’S POTENTIAL INFLUENCE ON PUBLIC HEALTH**

Over time, one can expect the burgeoning cannabis industry to engage in practices designed to maximize profits by enlarging the user base and promoting regular and heavy use. Most sales and profits come from those who use heavily or have CUD.<sup>12,35</sup> Heavy, daily, or near daily consumers of cannabis (10-20% of all consumers) are responsible for approximately 60-80% of total cannabis consumption; this incentivizes the cannabis industry to encourage heavy, daily cannabis consumption.<sup>19</sup> Sound public health policies are likely more effective when enacted early, “before a large and profitable cannabis industry has developed with the financial and political resources to resist public health regulation, as the alcohol industry has effectively done in most developed countries.”<sup>33</sup> A public health framework for legalized cannabis should be based on best public health practices established for tobacco control.<sup>37</sup> The World Health Organization’s Framework Convention on Tobacco Control states that “[Governments] should not allow any person employed by the tobacco industry or any entity working to further its interests to be a member of any government body, committee or advisory group that sets or implements tobacco control or public health policy.”<sup>37</sup>

## **AMENDMENTS FOR CONSIDERATION**

### **Article—Alcoholic Beverages**

#### **1-101: Makeup of the new Alcohol, Tobacco and Cannabis Commission**

- Only one new position with knowledge and expertise in the cannabis industry
- Amend the public health position to require expertise in alcohol, tobacco, or cannabis

#### **1-309.2: Makeup of Advisory Board on Medical and Adult-Use Cannabis**

- To avoid swaying this Board to industry (see section above on Guardrails Against Industry Influence), have no industry positions, include a member from all five topics under 4b, and include a conflict of interest clause, as with the ATC and Medical Cannabis Commission Commissioners

### **Division III. Cannabis**

#### **Subtitle 1. Definitions**

- Authorization to certify for medical cannabis should not be expanded to providers who are not entitled to prescribe controlled substances (i.e., registered nurses)

#### **Subtitle 2. Cannabis Regulation and Enforcement Division**

##### **36-203**

- Include basic labeling requirements besides child-proof packaging—THC potency, all ingredients, serving size, servings per container, calories (if applicable)

#### **Subtitle 4. Cannabis Licensing**

- Eliminate the delivery license
- Remove exemption to the MD Clean Indoor Air Act for on-site consumption establishments
- Eliminate the ability for a food service facility to apply for an on-site consumption license
- Remove preemption of local control for all license types

## **Subtitle 9. Advertising**

### **36-902**

- All advertisements for products containing cannabis, regardless of whether or not they make medical or therapeutic claims, should be labeled with information on the most significant side effects or risks
- Permissible medical or therapeutic claims should be determined by the Public Health Advisory Council. Therapeutic claims should be based on evidence interpreted by unbiased experts without the potential for influence by persons associated with the cannabis industry.

## **Subtitle 10. Responsible Vendor Training Program**

- Training should include risks of cannabis use including CUD, risks of consumption by women considering pregnancy or who are pregnant or breastfeeding, risks of evoking psychosis (especially in those with a history of psychosis), etc.
- Training should include how to identify intoxicated individuals and strategies to prevent overservice

## **Subtitle 11. Prohibited Acts**

### **36-1103**

- Create a reasonable potency cap that is valid across all non-medical license types without exception.

## **Article Tax—General**

### **2-1302.2**

- The proportion of funds allocated to the Cannabis Public Health Advisory Council should be increased to 5%. The Council needs adequate funding and staff to carry out its important mission of developing and enforcing appropriate public health safeguards and monitoring their effectiveness. Minimizing, if not eliminating the exposure of vulnerable groups (adolescents, pregnant and breastfeeding women, individuals with a history of psychosis) to recreational cannabis cannot be successful without strict monitoring and enforcement of public health regulations that carry penalties sufficient to deter violations. This mission requires an adequately funded and staffed CPHAC.
- A portion (5%) of funds should be allocated to fund programs for the prevention and treatment of CUD and other cannabis-related harm

### **11-104**

- Adult use cannabis should be labeled with THC potency, and taxation should be based, at least in part, on THC potency, as in Connecticut, Illinois, and New York

### **Respectfully submitted by:**

The Maryland-DC Society of Addiction Medicine (MDDCSAM)

The Maryland Public Health Association (MdPHA)

The National Council on Alcoholism and Drug Dependence, Maryland Chapter (NCADD)

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## **SB516\_AnitaReddy\_INFO**

Uploaded by: Anita Reddy

Position: INFO

LETTER OF INFORMATION

My name is Anita Reddy. On March 27, 2019 our lives were forever changed. We were devastated by the reckless and untimely death of our second child, Aaron Reddy at the young age of 18. Considering that marijuana is the drug that killed my child directly, the drug that was in his blood when he died.

Aaron was an intelligent, handsome young man. He had a beautiful, compassionate, forgiving, self-sacrificing, quiet nature. He was accepting and loving everyone. He had a quick wit and was always joking around with family and friends. As he said a few weeks prior to his death, "Mom, we must always forgive everyone and spend time with those we love." That was my Aaron, my precious kind boy.

**How this nightmare began**

When Aaron was 16 years old his friend from school helped him obtain a job as a busboy at a restaurant in Fallston, MD. Aaron was so excited about his interview, he dressed up in a suit, with his dad's help, typed up a resume and obtained his first job. Little did I know that this was the beginning of the end of Aaron's life. The woman who recommended to the manager that Aaron be hired had a long criminal history and had a plan to start a Medical Marijuana business. She worked there as a waitress along with her son, daughter and step son.

The mother knew that Aaron was a bright student at in the business program at Eastern Tech H.S. He had dreams of becoming a Certified Management Accountant. From all the information we learned after Aaron's death, we believe this family befriended and groomed Aaron to assist them with their criminal enterprise. They were making marijuana edibles and selling it through the restaurant. In addition, the restaurant workers who had medical marijuana cards sold high-potency honey, shatter, wax, budder to the other (younger) kids working there.

We started seeing changes in Aaron's behavior a year or more of his death. He had a new group of work friends, became secretive, was always eager to go to work, avoided family activities and became more aggressive, despondent. However, I did not wake up to the real changes until it was too late! One day when I attempted to kiss his forehead while he was asleep on the family room couch, he jumped up and almost punched me in the face! Why was he suddenly so paranoid and prone to anger.

As I was running late to work, I thought about his behavior that whole day at work. While discussing this with someone at work, they informed me that Aaron was exhibiting all the signs of marijuana dependency as their own son had struggled with this addiction in the past. The friend also informed me that driving under the influence of marijuana was worse then drunk driving. When I got home that night around 9:00 pm, Aaron was already at work.



## **The night Aaron died**

He never came home the night of March 27, 2019. His impairment and addiction to marijuana -- and paranoid delusions -- caused him to veer off the road on his way home, crash into the woods off of I-95, where he got out of his car and walked onto I-95. While he was waiting for his friend to pick him up, he was run over and killed by a 27-year-old with a previous history of marijuana possession and DUI while impaired by a controlled substance. A witness who saw my son at the scene said he was totally lost and confused, not in his right mind and not knowing what he was doing. I know Aaron wouldn't have killed himself if he hadn't been astronomically high. He had no intention to suicide.

The police that responded to the accident scene never tested the 27-year-old for impairment of any kind, in spite of his history, based on the investigative reports that we obtained. In addition, despite numerous statements in the police report of the strong odor of marijuana emitting from Aaron's car, they called his manner of death a suicide, never testing his blood for THC.

One week after Aaron's death we were able to pick up his belongings from the towing companies lot, where his totaled car was held. The overpowering smell of marijuana was so strong that we had to take turns retrieving Aaron's possessions from his car. We called the Medical Examiner's office to find out the results of the toxicology report. Surprisingly, the toxicology report did not include the results for marijuana testing. Marijuana testing should be automatic. We described the strong smell of marijuana emitting from Aaron's car and pressed for the physician to retest Aaron's blood for THC. Not surprising, the results were quite high for THC. From sharing his results with cannabis experts, they determined that he was "acutely intoxicated + long term use."

## **My daughter knew about his use before we did**

While talking with my daughter, I found out that she had known of Aaron's marijuana use but did not inform us because of what she had been taught at school. She attends Perry Hall H.S., where the school without informed consent of us parents had a general assembly for the science students with a guest speaker. The guest speaker was a Bone Marrow Transplant patient who was using Medical Marijuana and was there to inform the teens of the benefits of this federally-illicit Schedule I drug. The patient apparently informed the teens that it was just "a herb from an ancient plant that helped ease her pain, anxiety and depression." I was astonished at this, since my cancer patients who use marijuana have much worse outcomes than those who are drug free.

I was shocked that the school would allow the marijuana industry into our schools. The ramifications of this misinformation led to the death of my son. I believe that if my daughter and son had been provided the truth about this biphasic drug and not been fed blatant lies about marijuana, my son would be alive now!

Anita Reddy rreddy10@verizon.net or areddy12@jhmi.edu  
Perry Hall, MD.

**2023- SB 516- PHI- INF-FINAL.pdf**

Uploaded by: Anne Klase

Position: INFO



March 9, 2023

112 West Street  
Annapolis, MD 21401

**Letter of Information – Senate Bill 516- Cannabis Reform**

Potomac Electric Power Company (Pepco) and Delmarva Power & Light Company (Delmarva Power) respectfully submit this letter of information on *Senate Bill 516- Cannabis Reform*. Senate Bill 516 establishes a regulatory and licensing system for adult-use cannabis in Maryland.

Pepco and Delmarva Power recognize that the Senate version of this legislation currently includes provisions that do not prohibit an employer from hiring or disciplining an employee for testing positive for cannabis if the testing was conducted in accordance with the employer's established drug testing policy. However, the cross file of this legislation, House Bill 556, was amended to remove these employer protections. Given the dangerous conditions under which many employees of Pepco and Delmarva Power work, Pepco and Delmarva Power must be able to keep our employees and even the general public safe. Establishing and enforcing a zero-tolerance drug policy is imperative for industries such as ours.

Accordingly, Pepco and Delmarva Power respectfully request that the Senate keep the employer provisions outlined in section 36-1301 of Senate Bill 516 for the reasons outlined above.

Contact:

Anne Klase  
Senior Manager, State Affairs  
240-472-6641  
[Anne.klase@exeloncorp.com](mailto:Anne.klase@exeloncorp.com)

Katie Lanzarotto  
Manager, State Affairs  
202-428-1309  
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**SB0516\_LOI\_MedChi\_Cannabis Reform.pdf**

Uploaded by: Ashton DeLong

Position: INFO

# MedChi

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*The Maryland State Medical Society*

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1.800.492.1056

www.medchi.org

TO: The Honorable Melony Griffith, Chair  
The Honorable Guy Guzzone, Chair  
Members, Senate Finance Committee  
Members, Senate Budget and Taxation Committee  
The Honorable Brian J. Feldman

FROM: Ashton DeLong, Esq., General Counsel

DATE: March 9, 2023

RE: **LETTER OF INFORMATION** – Senate Bill 516 – *Cannabis Reform*

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The Maryland State Medical Society (MedChi), the largest physician organization in Maryland, submits this **letter of information** for Senate Bill 516.

Senate Bill 516 implements the regulatory framework for the adult use of cannabis. MedChi applauds the work of the General Assembly that has culminated in this legislation, in particular, the decision not to impose a sales tax on medical cannabis. As the Committee works on this legislation, we would request that this provision be left intact so that existing medical cannabis patients do not suddenly have to pay the sales tax in an adult use market.

Secondly, we want to call to the Committee's attention a change being made from existing law as to who may act as a certifying provider. Current law allows a nurse practitioner or nurse midwife, which are both advanced practice nurses with prescribing authority for other types of drugs, to act as certifying providers for medical cannabis. Under Senate Bill 516, however, *registered* nurses—who do not have prescribing authority for other drugs—are subtly added to the list of certifying providers allowed to recommend cannabis on p. 21 at line 11 by using the word “or”.

MedChi does not believe that the General Assembly has thoroughly considered this change or that it should be made in the context of this bill. There is no evidence of a lack of existing certifying providers, with physicians, dentists, podiatrists, nurse practitioners, and physician assistants already filling this role. Furthermore, it is anticipated that far fewer people will seek qualification as medical cannabis patients once the adult use market takes hold, so the need for certifying providers will actually decrease, thereby lowering the need for certifying providers. And finally, this would be the first time that a health occupation that does not have prescribing authority would be permitted to recommend cannabis, a change that will likely lead to many other health occupations without prescribing authority seeking the same change in the future.

We thank the Committee for considering these points as it moves forward with this legislation.

# **SB516 info Crystal Thomas.pdf**

Uploaded by: Crystal Thomas

Position: INFO

Senate Bill 516 Cannabis Reform Senate Finance Committee, Senate Budget & Tax Committee  
March 9, 2023

Information:

My name is Crystal Thomas and I am writing this testimony to tell you how cannabis has affected my life and my son's life.

I will start with myself. I started smoking cannabis at 15 years old. I smoked every day for from 15 years to 32 years old. I always smoked flower marijuana and never had any issues. It wasn't until my last few years of smoking, that I started to smoke the concentrated THC cartridges, which are a lot more stronger. Whether it be from the flower or the cartridges, it has affected my breathing severely and has put me into the early stages of COPD.

Cannabis has also stunted my emotional maturity and numbed my emotions as well. Marijuana was also a gateway drug for me. Over time the marijuana stops working and you go to others things to seek a high. Cannabis has affected my emotional and physical health. My breathing got worse and I was constantly getting bronchitis. Also, no other form of cannabis would get me high after smoking cartridges, because of the difference in strength.

Marijuana has affected my 16 year old son as well. He started smoking at 12 years old unbeknownst to me. He started out smoking the cartridges off the bat. His smoking has greatly increased and it shows through his behavior and mood. He wants to stay high all day long, he has no motivation, always irritable, and very quick to anger. He has missed so much school in the past two and a half years, I have lost count of the number. When he does go to school, he barely goes to his classes, he's usually skipping in the bathroom getting high. He is failing every class but one and he doesn't even seem to care. He also smokes the concentrated dabs. I am terrified of what it is doing to his lungs, body and especially his brain.

From my personal experience, I feel we are not doing enough to protect people and to bring more awareness. My biggest concern is the public health impact cannabis has on our youth in the present and the future. There have been many studies done that have linked marijuana and bad mental health outcomes and I am living proof of that.

So I've come to you all today to not only share my personal experience, but to also ask for more public health measures for cannabis. I propose to have very clear health warnings on packaging, and as well as labeling for THC content. I also propose not having people from the industry on the cannabis advisory board, and better training for people who work in the industry.

Thank you for taking the time to read my story, I greatly appreciate it.

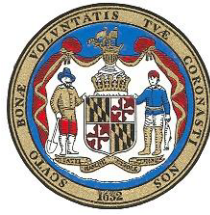
Crystal Thomas  
Glen Burnie, MD  
crystal22107@yahoo.com

# **SB 516 - STO Testimony.pdf**

Uploaded by: Dereck Davis

Position: INFO





MARYLAND STATE TREASURER  
Dereck E. Davis

**Informational Testimony of the Maryland State Treasurer's Office**

**Senate Bill 516: Cannabis Reform**

**Senate Finance Committee and Senate Budget and Taxation Committee**

**March 9, 2023**

Following the successful legalization referendum on adult-use cannabis, the State Treasurer's Office (STO) began taking steps to prepare for the revenue that the State will receive in the near future. As part of this effort, Treasurer Davis requested that staff reach out to other states to better understand how their treasuries manage the revenue given federal constraints. To date, STO has spoken with a number of states about their operational programs. The Treasurer also requested outreach to State and federally chartered banks to learn more about their interest and capacity to participate in the implementation of Maryland's new program.

Based on these conversations, STO notes for the committees' consideration an amendment to the State Finance and Procurement Article. Under current law, the State is limited to using entities that meet the definition of "financial institution" as depositories for State money. On advice of counsel from the Office of the Attorney General, the definition in § 6-201(e) of the State Finance and Procurement Article would preclude the State from using State-chartered banks or credit unions as depositories.

There are several reasons why the committees may wish to consider amending the law to allow State-chartered banks and credit unions to serve as depositories. First, diversification across multiple financial institutions would provide additional security with more sources to deposit revenue in a marketplace that is ever-changing. Second, working with State-chartered banks and credit unions would afford the State more avenues for supporting small and minority-owned businesses. For these reasons, STO believes that the law should be changed.

If the committees are amenable, § 6-201 of the State Finance and Procurement Article would need to be amended as illustrated on page two of this testimony.

We hope that this information is useful to you. At Treasurer Davis' direction, STO continues to communicate with financial institutions across the State and with representatives from other states to anticipate some of the known challenges that arise in this area of fiscal policy. Please do not hesitate to reach out to Laura Atas, Deputy Treasurer for Public Policy ([latas@treasurer.state.md.us](mailto:latas@treasurer.state.md.us)), with any questions.

## **Proposed Amendment**

### **State Finance and Procurement Article**

§ 6–201.

(a) In this subtitle the following words have the meanings indicated.

(b) “Banking institution” means an institution that is incorporated under the laws of the State as a State bank, trust company, or savings bank.

(c) “Collateral” means collateral that is listed under § 6–202 of this subtitle.

(d) **“CREDIT UNION” MEANS A CREDIT UNION THAT IS INCORPORATED UNDER THE LAWS OF THE STATE AS A STATE CREDIT UNION.**

**(E)** “Deposit insurance” means insurance by:

(1) the Federal Deposit Insurance Corporation; or

(2) the Resolution Trust Corporation created under § 21A of the Federal Home Loan Bank Act (12 U.S.C. § 1441a.).

**[(e)](F)** “Financial institution” means:

(1) any banking institution;

(2) any national banking association;

(3) an institution that is incorporated under the laws of any other state as a bank; **[and]**

(4) an institution that is incorporated under the laws of this State or of the United States as a savings and loan association; **OR**

**(5)** **A CREDIT UNION.**

**[(f)](G)** “National banking association” means an institution that is incorporated under federal law as a bank.

**[(g)](H)** “State money” for purposes of §§ 6–209 and 6–210 of this subtitle includes money in a bank account maintained under the control of an employee or official of the clerk of the court or register of wills.

**MOST\_HB556\_SB516\_LOI.pdf**

Uploaded by: Ellie Mitchell

Position: INFO



February 16, 2023

**HB556/SB516 – Cannabis Reform  
Letter Of Information  
Economic Matters Committee 2/17  
Finance Committee 3/9**

The Maryland Out of School Time Network (MOST) is a statewide organization dedicated to closing opportunity gaps by expanding both the quantity and quality of afterschool and summer learning opportunities for school-aged young people. MOST is one of the fifty statewide networks supported by the Charles Stewart Mott Foundation and serves as Maryland's affiliate to the National Afterschool Association.

MENTOR Maryland | DC is the statewide affiliate of MENTOR: The National Mentoring Partnership in Maryland. Our shared mission is to increase both the quality and quantity of mentoring relationships. This is accomplished through support to on-the-ground mentoring programs to improve their quality, effectiveness, and scale while coalescing stakeholders to expand engagement and investment locally.

**With the legalization of recreational marijuana in Maryland, we have an even greater urgency to expand access to positive youth development opportunities.** The same communities that have been deeply impacted by the war on drugs also frequently have an insufficient investment in programs for young people of all ages. In addition, these communities are home to smaller nonprofits that provide essential youth services but have been historically excluded from funding both government and private philanthropic funding sources. The Cannabis Reinvestment & Repair Fund could offer a meaningful boost to targeted communities.

Research indicates that afterschool, summer, and mentoring programs support healthy decision-making. Young people who have opportunities to attend high-quality youth development programs are more likely to graduate from high school, pursue secondary education, and are less likely to be both victims and perpetrators of crimes. Young people who experience programs that open windows and doors to new experiences are more likely to plan for the future and have a sense of agency. These protective factors mitigate risk-taking and make it less likely for young people to engage in underage alcohol or drug use.

**As the legislature begins to design the Community Reinvestment & Repair Fund, we encourage you to review successful examples from other states.** Included with this Letter of Information is an overview from the Afterschool Alliance, providing brief overviews from across the country. One particular highlight is from Illinois:



**MOST NETWORK**  
Leaders in Youth Development



**MENTOR**  
MARYLAND | DC

*Illinois Governor JB Pritzker signed the Cannabis Regulation and Tax Act (HB1438) into law on June 25, 2019. This law not only legalized adult-use cannabis, but it also created the Restore, Reinvest, and Renew (R3) program. Under this program, Illinois directs funding to areas with high rates of economic disinvestment, gun violence, unemployment, child poverty, and incarceration. The program requires that grantees use the funding to support civil legal aid, economic development, reentry, violence prevention, and/or youth development. Through 2020, the R3 board met to designate areas of need in Illinois and design a grant program to serve these target areas.*

*In January 2021, Illinois announced its first round of R3 grants. Roughly 400 programs applied for funding. Only 80 programs received grants, and more than half of these fund youth development programs. The overwhelming number of applications for this funding underscores the need in these communities.*

We also encourage the legislature to consider adding a representative with youth development expertise to the Advisory Board on Medical and Adult Use Cannabis to provide additional perspectives on strategies and programs to mitigate juvenile cannabis usage post-legalization.

MOST and MENTOR Maryland | DC can serve as a connection point for additional information about the approaches taken in other states. **Maryland continues to fall in the bottom ten states in our access to afterschool programs. We can do better for young people, support healthy decision-making, and bolster positive outcomes using the revenue from legalized Cannabis.**

Ellie Mitchell  
Executive Director, Maryland Out of School Time Network  
Acting Executive Director, MENTOR Maryland | DC  
[emitchell@mostnetwork.org](mailto:emitchell@mostnetwork.org)  
410-370-7498

**testimony\_SB516.pdf**

Uploaded by: Heather Franz

Position: INFO

March 8, 2023

Dear Mr. or Madame Chair and members of the committee,

I am writing to you regarding provisions of bill SB0516 (“Cannabis Reform”). Although cannabis legalization has already been enacted in Maryland by referendum last November, legislation is needed to protect Maryland residents from potential negative consequences on public health and safety. The current bill falls short in efforts to accomplish this.

This issue strikes a personal chord with me for multiple reasons. First, my sister, who lived in California for many years, was prescribed medical marijuana for pain relief from a back injury. However, I am certain that her exposure to excessive amounts of THC from smoking marijuana was instrumental in her untimely death at age 53 from congestive heart failure. More research is clearly needed, but numerous articles in medical journals indicate an association between cannabis use and increased risk of negative cardiovascular events, such as stroke, epilepsy, acute myocardial infarction, congestive heart failure, and arrhythmia.

As the mother of young children, I am also gravely concerned about potential impacts on them. Although marijuana use by minors is still illegal, there can be no doubt that its more widespread availability will vastly increase the number of children and adolescents consuming it, despite restrictions. Medical research has demonstrated that cannabis use by young people up to the age of 25 is associated with stunted brain development. In addition, research by the Institute for Behavior and Health indicates that the earlier a child or adolescent begins consuming either alcohol or drugs, the greater the chance that he or she will develop a life-long substance abuse problem.

Statistics collected in western states where cannabis was first legalized show that cannabis is a powerful gateway drug and that many teenagers who use marijuana will inevitably move on to stronger drugs. Moreover, the alarming trend in society’s stance on drug use from cautionary to permissive suggests to young people that safeguards restricting drug use are suspicious and may be unnecessary. This is the absolute wrong message to send our youth, given the current explosion in drug addiction and deaths from fentanyl poisoning in the U.S.

States that have legalized recreational marijuana have seen an associated increase in traffic-related incidents and fatalities. I also witnessed countless incidents of people smoking marijuana in their cars while driving or sitting in their cars in public parking lots. I have also been personally impacted by exposure to second-hand marijuana smoke in public places and hotels, which has cause me to feel ill.

Research shows that marijuana available today is much more potent than that of past decades, making it highly addictive and more likely to produce negative health effects. The current bill does not include sufficient controls for protection of consumers. It should establish a potency cap, such as that enacted by some other states like Vermont and Connecticut. It should also require strong warning labels on cannabis products, including visual graphics of the dangers of use on its packaging, in advertisements, and on websites established for its promotion or sale.

Thank you for your consideration of these concerns.

Sincerely,

Heather Franz, Clarksville, MD

**ABC Maryland\_SB0516\_Xavier.pdf**

Uploaded by: Joe Xavier

Position: INFO



Good afternoon, Chair Griffith and committee members.  
I am Joe Xavier, Senior Director of Health & Safety for ABC National.

All Maryland businesses will need to do three things once recreational cannabis is fully legalized in July:

1. Comply with the law regarding consumers who use cannabis in a responsible manner.
2. Protect the rights of the workforce to a safe and healthful workplace.
3. Ensure the workforce is predictable and sustainable in order to provide a valuable product or service to the market.

Construction is labor intensive and the workplace is in a constant state of change.

Even with sophisticated safety systems there are still too many injuries in the construction industry. One miscommunication, one misjudgment, one inch, one second can be the difference between a normal day and a tragic fatality.

Construction companies need flexibility and the ability to utilize policies, practices, and tools that keep our workforce safe and free of impairment at work.

While current testing for cannabis has some limitations, technology is in use and being further developed.

In closing, this request is a pro-worker position, the workforce needs to feel safe at work knowing that their coworkers are ready for work and not impaired.

Thank you for your time and consideration of the testimony from this panel.

**BGE - SB 516 - LOI - Senate Bill 516- Cannabis Ref**

Uploaded by: John Quinn

Position: INFO

Information  
Finance  
3/9/2023

### **Senate Bill 516- Cannabis Reform**

Baltimore Gas and Electric Company (BGE) offers this letter of information on *Senate Bill 516- Cannabis Reform*. Senate Bill 516 establishes a regulatory and licensing system for adult-use cannabis in Maryland.

BGE is supportive of the language in the Senate version of this legislation that does not prohibit an employer from hiring or disciplining an employee for testing positive for cannabis if the testing is conducted in accordance with the employer's established drug testing policy. However, the cross file of this legislation, House Bill 556, was amended to remove these employer protections. Given the public exposure and the dangerous conditions under which many employees of BGE work, we must be able to keep our employees and the public safe. Establishing and enforcing a zero-tolerance drug policy is imperative for industries such as ours.

BGE respectfully requests that the Senate keep the employer provisions outlined in section 36-1301 of Senate Bill 516 for the reasons outlined above.

# **SB 516\_Cannabis Reform M-NCPPC Letter of Informati**

Uploaded by: Jordan BaucumColbert

Position: INFO



## LETTER OF INFORMATION

**Bill:** SB516/HB556

**Contact:** Debra Borden, General Counsel  
Jordan Baucum Colbert, Government Affairs Liaison

**Date:** March 9, 2023

**Re:** Letter of Information

Dear Chairman Melony Griffith and Vice Chair Katherine Klausmeier,

The Maryland-National Capital Park and Planning Commission (the “Commission”) takes no position on this bill. However, the Commission respectfully requests the Finance Committee to consider this information and include it in the record.

The Commission was established in 1927 to provide regional long-range planning and park acquisition and development. Since its formation, the Commission has become one of the most recognized leaders in land use planning, parks and recreation, achieving countless awards for innovation and stewardship. As Maryland moves towards legalizing recreational cannabis, we hope the legislature will consider how legal adult-use cannabis will specifically impact employers and workplace policies.

### I.

#### Section 36-405 (B)(2): A local jurisdiction may not establish zoning or other requirements that unduly burden a cannabis licensee.

The “unduly burden” language is problematic. It could be argued that the provisions in § 36-407(B)(1) and (2), which provide that a county or municipality may “prohibit the operation of on-site consumption establishments,” and “prohibit or restrict the smoking or vaping of cannabis at on-site consumption establishments,” unduly burden a licensee and contradict § 36-405(B)(2). The term “unduly burden” is overly broad and vague and should be defined or clarified. Furthermore, § 36-407(B)(1) and (2) should be reconciled with § 36-405(B)(2) to address the apparent and contradiction. Additionally, clarifying language should be considered if the intent of the bill is to prohibit a local jurisdiction from requiring a special exception or conditional use or imposing other zoning conditions related to the operation of the use.

#### Section 36-405(B)(4): A local jurisdiction may not prevent an entity whose license may be converted under § 36-401(B)(1)(II) of this subtitle and that is in compliance with all relevant medical cannabis regulations from being granted the license conversion.

Is the intent to prevent local jurisdictions from requiring a new or amended Use and Occupancy Permit for existing medical cannabis dispensaries? Would requiring amendments to existing development approvals to remove conditions associated with the medical cannabis use be considered an attempt to “prevent” the license conversion?

**Section 36-405(c): The use of a facility by a cannabis licensee is not required to be submitted to, or approved by, a county or municipal zoning board, authority or unit if it was properly zoned and operating on or before January 1, 2023.**

Our comment is similar to the one above. It appears that the intent is to facilitate conversion of medical dispensaries to adult-use dispensaries, but the term “zoning” is confusing. If the medical dispensary is currently licensed and operating as of January 1, 2023, then any zoning process required **for the premises** has necessarily concluded. If the focus is on the use, then the permit process should be referenced, not zoning.

II.

**Section 36-1301 (E)(1): This section does not prevent a government employer from disciplining an employer or a contractor for ingesting cannabis in the workplace or working while impaired by cannabis.**

The proposed section (E)(1) as drafted may be read to limit the Commission’s ability to discipline employees for positive drug tests. When construed in comparison with section (F), which allows “any employer” to deny employment or discipline employee simply for testing positive for cannabis use if you have an established drug testing policy, an employee may argue that section (F)’s use of the term “any employer” doesn’t include a “government employer” because “government employer[s]” have their own Section (E). The Commission recommends changing (F) to (E)(4) and adding the following language after “any employer” in (F): any employer, public or private.

It is also important to acknowledge that drug tests do not measure impairment in real time, which makes it very difficult for employers to create a safe work environment. It also forces employers to use reasonable suspicion standards to gauge whether an employee violated workplace policies, which can be subjective and prone to interpretation. Thus, the legislature should consider protections for employers using a “reasonable suspicion” standard conducted in good faith.

**Section 36-1301 (A): Except as provided in this section, neither the state nor any of its political subdivisions may deny a benefit, an entitlement, a driver's license, professional license, housing assistance, social services, or other benefits based on lawful cannabis use or for the presence of cannabinoids or cannabinoid metabolites in the urine, blood, saliva, breath, hair, or other tissue or fluid of an individual who is at least 21 years old or qualifying patient who is under the age of 21 years of age.**

A “benefit” could include the provision of medical treatment through workers’ compensation, which could include a doctor’s recommendation for cannabis for treatment of a work-related injury and/or an Order from the Workers’ Compensation Commission requiring an employer to pay for cannabis, which may pose a potential conflict. Under federal law, this provision may not be enforceable within the workplace because cannabis remains a scheduled drug (not to mention the logistics of what is still a cash-only business), and this law would be directly contrary if employers are not permitted to deny a “benefit” under section (A).

**AODAAC SB516.pdf**

Uploaded by: Leslie Frey

Position: INFO



## ALCOHOL AND OTHER DRUG ABUSE ADVISORY COUNCIL

Marc Elrich  
County Executive

James Bridgers, Ph.D.  
Acting Director

### TESTIMONY ON CANNABIS REFORM (SB 516)

Submitted by the Montgomery County Alcohol and Other Drug Abuse Advisory Council  
to the Maryland Senate Finance Committee

March 9, 2023

Dear Chairperson Griffith and Respected Committee Members:

We commend Maryland lawmakers' efforts to thoughtfully balance the considerable benefits of cannabis legalization against the foreseeable public health risks. We recognize and appreciate that cannabis legalization will result in a profound reduction in serious harms related to over-criminalization. We are writing to ensure that the foreseeable public health risks are understood.

Experience in other states suggests that legalization will increase cannabis use,<sup>1,2,3</sup> daily cannabis use,<sup>4</sup> and the use of high-potency (i.e., high THC content) cannabis products,<sup>5,6</sup> and will increase the prevalence of cannabis-related harms among some individuals.

Most people who use cannabis do not experience problems. However, cannabis-related harms are not rare and will become more common after legalization. The most significant potential harms are an increased prevalence of cannabis use disorder (CUD, sometimes called cannabis addiction) and of cannabis-related mental health conditions.

#### **CANNABIS USE DISORDER (CUD)**

Approximately 22% of those who use cannabis develop CUD.<sup>7</sup> The risk is quite low with infrequent use, but may be as high as 50% for those using daily.<sup>8</sup> About one-in-ten of all people seeking treatment for any substance use disorder are seeking treatment for CUD.<sup>9</sup> About 20% of adolescents develop CUD within four years of beginning cannabis use.<sup>10</sup>

CUD can be broadly defined as the loss of control over cannabis use even when it causes significant and sustained impairment in functioning. Specific criteria for diagnosis are found in the American Psychiatric Association's Diagnostic and Statistical Manual, 5<sup>th</sup> Edition (DSM-5). Like other substance use disorders, CUD significantly impairs a person's ability to function in psychological, behavioral, social, educational, and/or vocational domains.

Cannabis legalization laws are associated with a 20% increase in the rate of cannabis use by adults<sup>3</sup> and with a 25% increase in the prevalence of CUD in adults.<sup>11</sup> This is consistent with the association of legalization laws with an increase in potential CUD "risk factors," such as electronic drug delivery methods ("vaping," "e-cigarettes"), marketing & promotion, and increased THC content.<sup>12</sup> Legal dispensary products often contain up to 85% THC. Higher THC concentrations are associated with increased risk of CUD, psychosis, and other negative outcomes.<sup>13,14,15,16,17,18</sup>



Even without CUD, regular cannabis use can potentially result in a host of ongoing impairments that are not always recognized as cannabis-related. Withdrawal symptoms, which can cause significant distress or impairment, can make it difficult to stop using cannabis even in those without CUD. There is reason to believe that practices that make cannabis more easily accessible (e. g., delivery services) will increase cannabis use and the attendant risk of unhealthy use.<sup>19</sup>

## **MENTAL HEALTH EFFECTS**

Acute cannabis use is associated with impaired learning, memory, and motor coordination, as well as decreased ability to plan, organize, solve problems, and make decisions (which are called executive functions). These impairments can lead users of cannabis to make risky decisions.<sup>20</sup> Cannabis intoxication is associated with anxiety, panic attacks, and paranoia, as well as psychosis (delusions, hallucinations), especially in those with a history of psychosis from any cause or who are vulnerable to psychosis.<sup>21</sup> Legalization of cannabis for adult use is associated with increased prevalence of hospitalization for cannabis-associated psychosis.<sup>22</sup>

Long-term regular cannabis use is associated with a number of mental health effects, primarily in those who use at least weekly. A common adverse effect is impaired cognitive performance, including impairments in attention and working memory, information processing speed, and executive functioning,<sup>23</sup> especially in adolescents.<sup>24</sup> Cognitive performance may take months to normalize after cannabis cessation. Regular cannabis use is associated with worsening of anxiety, depression, and bipolar disorder symptoms and increases the likelihood of developing a depressive disorder.<sup>25,26,27</sup> It is also associated with a greatly increased risk of developing first-episode psychosis. The risk is even higher with use of high-potency cannabis (i.e., high THC content).<sup>17</sup> Cannabis use is also associated with a significantly increased risk of suicidal ideation, suicide planning, and suicide attempts.<sup>28</sup>

Long-term regular cannabis use beginning in adolescence is associated with educational, occupational, and social & interpersonal impairments.

## **EFFECTS ON PREGNANCY**

Cannabis legalization is associated with increased cannabis use by women before getting pregnant, during pregnancy, and after giving birth.<sup>29</sup> Prenatal (*in utero*) exposure of the fetus to cannabis is associated with short-term and long-term adverse effects, including low birth weight and neonates small for gestational age.<sup>30</sup> Prospective longitudinal studies suggest that prenatal cannabis exposure is associated with subtle neurobehavioral effects in childhood. The American College of Obstetricians and Gynecologists recommends against cannabis use during pregnancy or breastfeeding.<sup>31</sup> Cannabis legalization is associated with increased rates of hospitalization with cannabis-involved pregnancy.<sup>32</sup>

## **CANNABIS USE WILL LIKELY INCREASE OVER YEARS OR DECADES:**

It is too early to fully assess health effects of legalization laws. Most experts predict that legalization and commercialization will continue to reduce the cost of cannabis products substantially over time.<sup>12,33,34</sup> Since it will take many years for commercial markets to mature, it may not be possible to fully assess their health effects until the 2030s.<sup>35</sup> The removal of cannabis prohibition has already led to a price collapse in multiple states (e.g., at least a 70% drop in wholesale prices in Colorado, Oregon and Washington).<sup>36</sup> Rates of cannabis use are expected to be price-sensitive, as rates of alcohol and tobacco use are known to be.

## **GUARDRAILS NEEDED AGAINST INDUSTRY’S POTENTIAL INFLUENCE ON PUBLIC HEALTH**

Over time, one can expect the burgeoning cannabis industry to engage in practices designed to maximize profits by enlarging the user base and promoting regular and heavy use. Most sales and profits come from those who use heavily or have CUD.<sup>12,35</sup> Heavy, daily, or near daily consumers of cannabis (10-20% of all consumers) are responsible for approximately 60-80% of total cannabis consumption; this incentivizes the cannabis industry to encourage heavy, daily cannabis consumption.<sup>19</sup> Sound public health policies are likely more effective when enacted early, “before a large and profitable cannabis industry has developed with the financial and political resources to resist public health regulation, as the alcohol industry has effectively done in most developed countries.”<sup>33</sup> A public health framework for legalized cannabis should be based on best public health practices established for tobacco control.<sup>37</sup> The World Health Organization’s Framework Convention on Tobacco Control states that “[Governments] should not allow any person employed by the tobacco industry or any entity working to further its interests to be a member of any government body, committee or advisory group that sets or implements tobacco control or public health policy.”<sup>37</sup>

Respectfully submitted by:



Laura Mitchell, Chair  
Montgomery County’s Alcohol and Other Drug Abuse Advisory Council

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# **SB516 - Maryland Motor Truck Association - Informa**

Uploaded by: Louis Campion

Position: INFO



# Maryland Motor Truck Association

9256 Bendix Road, Suite 203, Columbia, MD 21045

Phone: 410-644-4600 Fax: 410-644-2537



**HEARING DATE:** March 9, 2023

**BILL NO/TITLE:** Senate Bill 516: Cannabis Reform

**COMMITTEE:** Senate Finance Committee

**POSITION:** Letter of Information

Maryland Motor Truck Association offers this letter of information urging the Senate Finance Committee to retain important employer protection and workplace safety language on page 72, lines 16-22, in SB516 as these provisions have been removed from cross-filed legislation (HB556) in the House of Delegates.

Federal regulations require motor carriers to test all commercial drivers for alcohol and drug use before employment, on a random basis, after crashes, and whenever a supervisor has reasonable suspicion that a driver may be impaired. These regulations have been adopted by reference in the Maryland Transportation Article, §25-111 and in the Code of Maryland Regulations, 11.21.01.02.

Under the Federal Motor Carrier Safety Regulations (§391.41(12)), drivers are disqualified from using any Schedule I drug or any non-Schedule I drug that would adversely affect the driver's ability to safely operate a commercial motor vehicle. If a driver tests positive for marijuana use, even if he is not driving at the time, he is disqualified from operating a commercial motor vehicle. No level of impairment needs to be established.

If a commercial driver fails a drug test, the Federal regulations require him/her to be immediately suspended and complete a substance abuse program. Companies may choose to terminate the driver if it is company policy. The driver may not be reinstated to drive until he completes a Return to Duty process, and then must be randomly drug tested at least six times in the next 12 months. Positive test results must be reported to the Federal Motor Carrier Safety Administration's Drug & Alcohol Clearinghouse. Prospective employers are required to query the clearinghouse when they screen new applicant drivers, and annually thereafter for those drivers they hire.

For the reasons noted above, MMTA believes that retaining the employer protection and workplace safety language on page 72, lines 16-22, in SB516 are vital to avoid confusion among employees and employers who are subject to the Department of Transportation's drug testing rules. As such, we urge the Committee to include this language in any legislation that moves forward.

**About Maryland Motor Truck Association:** Maryland Motor Truck Association is a non-profit trade association representing the trucking industry since 1935. In service to its 1,000 members, MMTA is committed to support, advocate and educate for a safe, efficient and profitable trucking industry in Maryland.

**For further information, contact:** Louis Campion, (c) 443-623-4223

# **sb516test - Cannabis Reform.pdf**

Uploaded by: Marcus Jackson

Position: INFO



**Maryland Joint  
Legislative Committee**

March 9, 2023

*The Voice of Merit Construction*

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**TO: FINANCE COMMITTEE**  
**FROM: ASSOCIATED BUILDERS AND CONTRACTORS**  
**RE: S.B. 516 – CANNABIS REFORM**  
**POSITION: INFORMATION**

On behalf of the Associated Builders and Contractors of Maryland, we appreciate the opportunity to opine on S.B. 516, the Cannabis Reform bill.

While ABC is agnostic on the issue of legalizing cannabis for recreational use in the Maryland, we are adamant that companies in safety-sensitive industries, such as construction, be permitted to enforce zero-tolerance policies for drug and alcohol use, including for cannabis. ABC Maryland is a member of the Construction Coalition for a Drug and Alcohol-free Workplace, which includes a pledge to prevent substance abuse. Contractors that participate in this program though the STEP Safety Management System have an OSHA total recordable incident rate 84% lower than the national industry average. The ability of construction companies to maintain commonsense drug policies is a very serious matter for the protection of workers, businesses, and residents in the Maryland. Accordingly, we respectfully ask the General Assembly to take our concerns and recommendations seriously.

**Worker Safety is more than OSHA compliance it's a Core Value**

Worker safety permeates every aspect of the construction industry. It is not hyperbole to say that safety is Priority #1 for every ABC Maryland member. When our employees come to work each day, they deserve to know that the person working next to them is not under the influence of drugs or alcohol. Permitting construction employers to enforce a drug and alcohol-free jobsite is essential to protecting workers. At its very core, it's a pro-worker position.

With this in mind, we have reviewed S.B. 516 and respectfully recommend the following construction focused language:

**36-101(O) (1) (pg 21 of bill, new language)**

Understands the dose, potency, and effects of being under the influence of cannabis being consumed; and

**36-101 (O)(2) (pg21 of bill, new language)**



Consumes in a responsible manner so as not to be under the influence of cannabis while traveling to and reporting ready for work.

**36-101(KK) (pg 25 of bill, new language)**

“Safety Sensitive” means any position in the construction industry or with regular duties that in the reasonable judgement of the employer would pose a risk of injury to the employee, other employees, or the public if performed under the influence of cannabis.

**36-1102(A) (pg 69 of bill, new language)**

(6) Use cannabis in violation of a drug-free workplace or employment policy that:

- (I) Requires pre-placement, fit for duty, post-accident, reasonable suspicion, and/or random drug testing of employees for cannabis or other drugs or drug testing of employees in safety sensitive positions;
- (II) Is necessary to comply with federal law, including the Drug-Free Workplace Act of 1988, or a federal contract or funding agreement, if applicable to the employer.

**General language:**

**36–1301 (pg 72 of bill, additions in bold)**

(E)(1) This section does not prevent a PRIVATE or government employer from disciplining an employee or a contractor for:

- (I) Ingesting cannabis in the workplace;
- (II) working while impaired by cannabis

In closing, I want to reiterate the seriousness with which construction companies take the issue of workplace safety, as well as underscore the potential ramifications of S.B. 516, as introduced, on the right of construction workers to work in a safe environment. On behalf of over 1500 ABC business members in Maryland, we remain available to the Committee as it works to finalize this legislation.

Marcus Jackson, Director  
Government Affairs

# **SB516\_ReasonFoundation\_INFO**

Uploaded by: Michelle Minton

Position: INFO



**Maryland**

**Senate Finance Committee**

**Testimony: S.B. 516 Emergency Bill – Cannabis Reform**

**Position: Informational Only**

**Michelle Minton, Senior Policy Analyst, Reason Foundation**

**March 9, 2023**

Chairperson Griffith and members of the committee:

My name is Michelle Minton. I am a Maryland resident and senior policy scholar at Reason Foundation, a 501(c)(3) nonprofit, nonpartisan public policy research organization. Among other things, Reason Foundation is committed to ensuring state-regulated cannabis markets are designed to be dynamic and offer genuine economic opportunities to individuals from a range of backgrounds. After reviewing Senate Bill 516, we believe the measure does many things well but could be improved to better benefit Maryland residents. We are grateful for the opportunity to provide our recommendations for the record.

With an initial proposed sales tax of six percent, hundreds of licenses available, flexibility in the types of cannabis businesses eligible for licensure, reasonable application and license renewal fees, and certain legal protections for consumers and businesses, we believe that S.B. 516 could set the stage for a vibrant adult-use cannabis market which promotes the transition of legacy suppliers into the regulated marketplace. That said, there are some aspects of the bill we believe could be improved.

Advocates for social equity within the cannabis industry reasonably demand restorative justice measures to compensate individuals and communities for decades of discriminatory government action related to cannabis and drug prohibition. However, states that have included social equity provisions within their cannabis legalization and regulatory frameworks have typically failed to target relief toward direct victims of the drug war; those arrested or convicted for cannabis offenses, as well as their families, who have borne the collateral consequences of those convictions, such as barriers to employment, higher education, or small business loans.

While there is substantial evidence that the discriminatory prosecution of the war on drugs has had broad social impacts, programs that fail to restrict eligibility for social equity benefits to direct victims of the drug war create loopholes that allow third parties to intercept benefits intended for direct victims of drug prohibition. This occurred in Illinois, for example, which allowed businesses to qualify as social equity applicants by merely pledging to employ six or

more employees from disproportionately impacted areas, leading to a situation in which the state's only social equity dispensary is owned by "wealthy and connected insiders."<sup>1</sup>

In its current draft, S.B. 516 avoids the mistake made by Illinois and other jurisdictions, instead basing social equity eligibility on the individual's past residency or public school attendance in disproportionately impacted areas of the state. Yet, even this remains overly broad, potentially diverting benefits that could assist direct victims of drug criminalization to individuals who lived nearby.

Maryland's approach to social equity eligibility in S.B. 516 is similar to that taken by other states, like New York. The difference, however, is that S.B. 516 would, assuming available licenses are granted at a reasonable pace, create significantly fewer barriers to entering the legal market. This is critical because, as New York and New York City, in particular, have discovered, high barriers to entry lead to perverse consequences which hamper diversity and may encourage law enforcement practices that perpetuate the harms of the drug war.<sup>2</sup>

We believe the relief intended by the social equity provisions of this bill would be better served by reserving a larger portion of the collected revenue for such direct benefits. Currently, S.B. 516 directs 30 percent of the revenues from adult-use cannabis to be allocated to the Community Reinvestment and Repair Fund to provide funding for "community-based initiatives intended to benefit low-income communities" and community-based initiatives that "serve communities disproportionately harmed by the cannabis prohibition and enforcement." that serve communities. A potential pitfall of diverting this large of a portion of cannabis revenues to the fund is that the goals of such programs are ill-defined and measuring success is difficult. Worthy as these goals may be, exacting accountability from grant recipients to pursue these goals may become challenging.

As such, we strongly encourage lawmakers to invest a larger portion of revenue into direct assistance for immediate victims of discriminatory drug laws and enforcement. Moreover, we recommend adding greater specific criteria for the types of community-based initiatives and activities eligible for Community Reinvestment and Repair Fund allocations to prevent waste, abuse, or diversion of funds to benefit victims and restore communities harmed by the drug war.

- Recommendation #1: Consider revising the language to limit social equity applicants and recipients to direct victims of drug law enforcement and their immediate families.
- Recommendation #2: Convert a portion of the 30% tax revenue currently designated for the Community Reinvestment and Repair Fund into direct payments or assistance for victims of cannabis prohibition or the war on drugs.

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<sup>1</sup> Robert McCoppin, "Illinois issues first two social equity marijuana dispensary licenses, and one shop expected to open soon in River North," Chicago Tribune, 10 November 2022.

<https://www.chicagotribune.com/marijuana/illinois/ct-illinois-marijuana-gri-dispensary-20221110-uiwr2rq42vb25mqw27proxcan-story.html>.

<sup>2</sup> Geoffrey Lawrence, "Reason Foundation,

- Recommendation #3: Include specific criteria for the types of community-based organizations, initiatives, and activities that qualify for Community Reinvestment and Repair fund allocations.

Another potential problem is the high license conversion fee proposed by this legislation which, at the high end, could be as much as \$2.5 million. We understand that the fee is intended to fund regulatory costs and limit early access to the market to established firms and will not be a recurring cost. However, this is much higher than the conversion fees that states like Connecticut (\$750,000 to \$1 million), Illinois (\$750,000), and Rhode Island (\$125,000) charge for converting medical licensees to dual-use facilities. We fear the proposed rate sets an extraordinarily high barrier to entry that will discourage conversion and deprive adults in Maryland of access to legal options for cannabis consumption.

Lastly, we ask members to consider adding to the legal protections currently listed within the bill to better protect immigrants, individuals who are or might become pregnant, parents, and legacy cannabis suppliers from law enforcement or government interference related to the use, possession, or trade of cannabis among adults.

There are many promising aspects of Senate Bill 516, including a competitive tax rate assessed on retail transactions only, a significantly sized pool of licenses, and legal protections for cannabis consumers and businesses. We hope lawmakers address the few issues addressed in this testimony to ensure Maryland's adult-use cannabis market is dynamic and beneficial for all residents of our state on opening day.

Michelle Minton

Senior Policy Analyst, Reason Foundation

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# **NCADD-MD - 2023 SB 516 LOI - Cannabis Reform - Sen**

Uploaded by: Nancy Rosen-Cohen

Position: INFO



**Senate Finance Committee**

**March 9, 2023**

**Senate Bill 516 - Cannabis Reform**

**Letter of Information**

On behalf of the National Council on Alcoholism and Drug Dependence, Maryland chapter (NCADD-Maryland), the Maryland-DC Society of Addiction Medicine (MDDCSAM), and the Maryland Public Health Association (MdPHA), we commend Maryland lawmakers' efforts to thoughtfully balance the considerable benefits of cannabis legalization against the foreseeable public health harms. NCADD-Maryland is a statewide organization that works to influence public and private policies on addiction, treatment, and recovery, reduce the stigma associated with the disease, and improve the understanding of addictions and the recovery process. We advocate for and with individuals and families who are affected by alcoholism and drug addiction.

We recognize and appreciate that cannabis legalization will result in a profound reduction in serious harms related to over-criminalization. We are writing to ensure that the foreseeable public health harms are understood and to suggest ways to minimize them. Experience in other states suggests that legalization will increase cannabis use,<sup>1,2,3</sup> daily cannabis use,<sup>4</sup> and the use of high-potency (i.e., high THC content) cannabis products,<sup>5,6</sup> and will increase the prevalence of cannabis-related harms among some individuals.

Most people who use cannabis do not experience problems. However, cannabis-related harms are not rare and will become more common after legalization. The most significant potential harms are an increased prevalence of cannabis use disorder (CUD, sometimes called cannabis addiction) and of cannabis-related mental health conditions.

At the end, we suggest several amendments for the regulatory framework that are informed by the information below.

### **CANNABIS USE DISORDER (CUD)**

Approximately 22% of those who use cannabis develop CUD.<sup>7</sup> The risk is quite low (on the order of 2-4%) for those using less than monthly, but is much higher (on the order of 30-50%) for those using daily.<sup>8</sup> The risk is greater the younger the age at starting cannabis use.<sup>7</sup> About one-in-ten of all people seeking treatment for any substance use disorder are seeking treatment for CUD.<sup>9</sup> About 20% of adolescents develop CUD within four years of beginning cannabis

use.<sup>10</sup>

CUD can be broadly defined as the loss of control over cannabis use even when it causes significant and sustained impairment in functioning. Specific criteria for diagnosis are found in the American Psychiatric Association's Diagnostic and Statistical Manual, 5<sup>th</sup> Edition (DSM-5). Like other substance use disorders, CUD significantly impairs a person's ability to function in psychological, behavioral, social, educational, and/or vocational domains.

Cannabis legalization laws are associated with a 20% increase in the rate of cannabis use by adults<sup>3</sup> and with a 25% increase in the prevalence of CUD in adults.<sup>11</sup> This is consistent with the association of legalization laws with an increase in potential CUD "risk factors," such as electronic drug delivery methods ("vaping," "e-cigarettes"), marketing & promotion, and increased THC content.<sup>12</sup> Legal dispensary products often contain up to 85% THC. Higher THC concentrations are associated with increased risk of CUD, psychosis, and other negative outcomes.<sup>13,14,15,16,17,18</sup>

Even without CUD, regular cannabis use can potentially result in a host of ongoing impairments that are not always recognized as cannabis-related. Withdrawal symptoms, which can cause significant distress or impairment, can make it difficult to stop using cannabis even in those without CUD. There is reason to believe that practices that make cannabis more easily accessible (e. g., delivery services) will increase cannabis use and the attendant risk of unhealthy use.<sup>19</sup>

## **MENTAL HEALTH EFFECTS**

Acute cannabis use is associated with impaired learning, memory, and motor coordination, as well as decreased ability to plan, organize, solve problems, and make decisions (which are called executive functions). These impairments can lead users of cannabis to make risky decisions.<sup>20</sup> Cannabis intoxication is associated with anxiety, panic attacks, and paranoia, as well as psychosis (delusions, hallucinations), especially in those with a history of psychosis from any cause or who are vulnerable to psychosis.<sup>21</sup> Legalization of cannabis for adult use is associated with increased prevalence of hospitalization for cannabis-associated psychosis.<sup>22</sup>

Long-term regular cannabis use is associated with a number of mental health effects, primarily in those who use at least weekly. A common adverse effect is impaired cognitive performance, including impairments in attention and working memory, information processing speed, and executive functioning,<sup>23</sup> especially in adolescents.<sup>24</sup> Cognitive performance may take months to normalize after cannabis cessation. Regular cannabis use is associated with worsening of anxiety, depression, and bipolar disorder symptoms and increases the likelihood of developing a depressive disorder.<sup>25,26,27</sup> It is also associated with a greatly increased risk of developing first-episode psychosis. The risk is even higher with use of high-potency cannabis (i.e., high THC content).<sup>17</sup> Cannabis use is also associated with a significantly increased risk of suicidal ideation, suicide planning, and suicide attempts.<sup>28</sup>

Long-term regular cannabis use beginning in adolescence is associated with educational, occupational, and social & interpersonal impairments.<sup>24</sup>



## **EFFECTS ON PREGNANCY**

Cannabis legalization is associated with increased cannabis use by women before getting pregnant, during pregnancy, and after giving birth.<sup>29</sup> Prenatal (*in utero*) exposure of the fetus to cannabis is associated with short-term and long-term adverse effects, including low birth weight and neonates small for gestational age.<sup>30</sup> Prospective longitudinal studies suggest that prenatal cannabis exposure is associated with subtle neurobehavioral effects in childhood. The American College of Obstetricians and Gynecologists recommends against cannabis use during pregnancy or breastfeeding.<sup>31</sup> Cannabis legalization is associated with increased rates of hospitalization with cannabis-involved pregnancy.<sup>32</sup>

## **CANNABIS USE WILL LIKELY INCREASE OVER YEARS OR DECADES:**

It is too early to fully assess health effects of legalization laws. Most experts predict that legalization and commercialization will continue to reduce the cost of cannabis products substantially over time.<sup>12,33,34</sup> Since it will take many years for commercial markets to mature, it may not be possible to fully assess their health effects until the 2030s.<sup>35</sup> The removal of cannabis prohibition has already led to a price collapse in multiple states (e.g., at least a 70% drop in wholesale prices in Colorado, Oregon, and Washington).<sup>36</sup> Rates of cannabis use are expected to be price-sensitive, as rates of alcohol and tobacco use are known to be.

## **GUARDRAILS NEEDED AGAINST INDUSTRY'S POTENTIAL INFLUENCE ON PUBLIC HEALTH**

Over time, one can expect the burgeoning cannabis industry to engage in practices designed to maximize profits by enlarging the user base and promoting regular and heavy use. Most sales and profits come from those who use heavily or have CUD.<sup>12,35</sup> Heavy, daily, or near daily consumers of cannabis (10-20% of all consumers) are responsible for approximately 60-80% of total cannabis consumption; this incentivizes the cannabis industry to encourage heavy, daily cannabis consumption.<sup>19</sup> Sound public health policies are likely more effective when enacted early, “before a large and profitable cannabis industry has developed with the financial and political resources to resist public health regulation, as the alcohol industry has effectively done in most developed countries.”<sup>33</sup> A public health framework for legalized cannabis should be based on best public health practices established for tobacco control.<sup>37</sup> The World Health Organization’s Framework Convention on Tobacco Control states that “[Governments] should not allow any person employed by the tobacco industry or any entity working to further its interests to be a member of any government body, committee or advisory group that sets or implements tobacco control or public health policy.”<sup>37</sup>

## **AMENDMENTS FOR CONSIDERATION**

### **Article—Alcoholic Beverages**

#### **1-101: Makeup of the new Alcohol, Tobacco and Cannabis Commission**

- Only one new position with knowledge and expertise in the cannabis industry
- Amend the public health position to require expertise in alcohol, tobacco, or cannabis

#### **1-309.2: Makeup of Advisory Board on Medical and Adult-Use Cannabis**

- To avoid swaying this Board to industry (see section above on Guardrails Against Industry Influence), have no industry positions, include a member from all five topics under 4b, and include a conflict of interest clause, as with the ATC and Medical Cannabis Commission Commissioners

### **Division III. Cannabis**

#### **Subtitle 1. Definitions**

- Authorization to certify for medical cannabis should not be expanded to providers who are not entitled to prescribe controlled substances (i.e., registered nurses)

#### **Subtitle 2. Cannabis Regulation and Enforcement Division**

##### **36-203**

- Include basic labeling requirements besides child-proof packaging—THC potency, all ingredients, serving size, servings per container, calories (if applicable)

#### **Subtitle 4. Cannabis Licensing**

- Eliminate the delivery license
- Remove exemption to the MD Clean Indoor Air Act for on-site consumption establishments
- Eliminate the ability for a food service facility to apply for an on-site consumption license
- Remove preemption of local control for all license types

#### **Subtitle 9. Advertising**

##### **36-902**

- All advertisements for products containing cannabis, regardless of whether or not they make medical or therapeutic claims, should be labeled with information on the most significant side effects or risks
- Permissible medical or therapeutic claims should be determined by the Public Health Advisory Council. Therapeutic claims should be based on evidence interpreted by unbiased experts without the potential for influence by persons associated with the cannabis industry.

#### **Subtitle 10. Responsible Vendor Training Program**

- Training should include risks of cannabis use including CUD, risks of consumption by women considering pregnancy or who are pregnant or breastfeeding, risks of evoking psychosis (especially in those with a history of psychosis), etc.

- Training should include how to identify intoxicated individuals and strategies to prevent overservice

### **Subtitle 11. Prohibited Acts**

#### **36-1103**

- Create a reasonable potency cap that is valid across all non-medical license types without exception.

### **Article Tax—General**

#### **2-1302.2**

- The proportion of funds allocated to the Cannabis Public Health Advisory Council should be increased to 5%. The Council needs adequate funding and staff to carry out its important mission of developing and enforcing appropriate public health safeguards and monitoring their effectiveness. Minimizing, if not eliminating the exposure of vulnerable groups (adolescents, pregnant and breastfeeding women, individuals with a history of psychosis) to recreational cannabis cannot be successful without strict monitoring and enforcement of public health regulations that carry penalties sufficient to deter violations. This mission requires an adequately funded and staffed CPHAC.
- A portion (5%) of funds should be allocated to fund programs for the prevention and treatment of CUD and other cannabis-related harm

#### **11-104**

- Adult use cannabis should be labeled with THC potency, and taxation should be based, at least in part, on THC potency, as in Connecticut, Illinois, and New York

### **Respectfully submitted by:**

The Maryland-DC Society of Addiction Medicine (MDDCSAM)

The Maryland Public Health Association (MdPHA)

The National Council on Alcoholism and Drug Dependence, Maryland Chapter (NCADD)

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**MCPA-MSA\_SB 516 \_Cannabis Reform\_LOI.pdf**

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Position: INFO



# Maryland Chiefs of Police Association

## Maryland Sheriffs' Association



### MEMORANDUM

**TO:** The Honorable Melony Griffith, Chair and  
Members of the Finance Committee

**FROM:** Darren Popkin, Executive Director, MCPA-MSA Joint Legislative Committee  
Andrea Mansfield, Representative, MCPA-MSA Joint Legislative Committee  
Natasha Mehu, Representative, MCPA-MSA Joint Legislative Committee

**DATE:** March 9, 2023

**RE:** **SB 516 – Cannabis Reform**

**POSITION:** **LETTER OF INFORMATION**

The Maryland Chiefs of Police Association (MCPA) and the Maryland Sheriffs' Association (MSA) are submitting this letter of information regarding SB 516. This bill creates a regulatory and licensing structure for recreational cannabis. The committee has a great task ahead of them in establishing a structure in advance of July 1, 2023. The breadth of the bill is indicative of the many issues that need to be addressed when setting up this new structure.

MCPA and MSA raise sections § 36–1301, § 36–1302, and § 36–1303 under Subtitle 13. Civil Immunities and Liabilities to attention. These sections set the parameters for what an employer may or may not do when it comes to employees who consume cannabis. They are very broad, presumably, so they can apply to all employers. However, law enforcement is unlike other employers.

Due to the nature of the law enforcement profession, there are often unique considerations that need to be made for law enforcement officers that do not apply to other professions. The employer provisions in SB 516 would undermine existing law enforcement standards regarding drug use. For instance, COMAR cannabis regulations were recently adopted by the Maryland Police Training and Standards Commission. These include guidelines about prior drug use that officers must meet for employment. This bill does not uphold those standards and prohibitions. Additionally, unless already established, a law enforcement employer would not be able to create cannabis drug testing requirements for existing sworn officers. Given the specific standards law enforcement officers must meet, the bill should have exceptions for law enforcement officers before, during, and after hire.

The MCPA and MSA hope you take these concerns that are particular to law enforcement as employers into consideration as you work towards a product that meets all the state's intended goals.

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**SB 516\_MAA\_LOI.pdf**

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CHAIRMAN:  
Jeff Graf  
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David Slaughter

**MARYLAND ASPHALT ASSOCIATION**



TREASURER:  
Paul Bramble  
SECRETARY:  
Curtis Hall  
PRESIDENT:  
G. Marshall Klinefelter

March 9, 2023

Senator Melony Griffith, Chair  
Senate Finance Committee  
3 East, Miller Senate Office Building  
Annapolis, MD 21401

Senator Guy Guzzone, Chair  
Senate Budget and Taxation Committee  
3 West, Miller Senate Office Building  
Annapolis, MD 21401

**RE: Senate Bill 516 – LETTER OF INQUIRY – Cannabis Reform**

Dear Chairs Griffith and Guzzone and Members of the Committees:

The Maryland Asphalt Association (MAA) is comprised of 19 producer members representing more than 48 production facilities, 25 contractor members, 25 consulting engineer firms and 41 other associate members. MAA works proactively with regulatory agencies to represent the interests of the asphalt industry both in the writing and interpretation of state and federal regulations that may affect our members. We also advocate for adequate state and federal funding for Maryland's multimodal transportation system.

Senate Bill 516 would establish the initial framework to legalize recreational adult cannabis use, specifically outlining the State's authority to regulate and tax the various elements of the new industry. Of particular interest to MAA is a section setting forth civil protections to be afforded to recreational cannabis users and potential areas of liability for public and private employers.

Without taking a position on the merits of the bill itself, MAA wishes to express concern about some areas that would impact our members—both from the employer and the employee side of the equation—as we strive to ensure worker safety. Our primary concern lies with the bill's lack of properly delineating between what constitutes responsible (i.e., protected) cannabis use and irresponsible cannabis use for which employers can take disciplinary action. While we appreciate the deference given to established employers' drug testing policies, the bill does not provide sufficient guidance on the issue of discipline for cannabis use while on the job. This might not pose much of a safety problem in many jobs around the State, but our members in the transportation construction industry work with some of the largest machinery in the world, so the lives of our employees—and those of every motorist on our roadways—depends on our ability to take appropriate disciplinary action if any of our workers show up under the influence of a mind-altering substance. Unlike with alcohol, there is no universally recognized and scientifically measurable level at which an individual can be declared impaired due to cannabis use, and the unique chemical makeup of cannabis makes it difficult for existing testing solutions to differentiate between current cannabis use and that performed sometime in the recent past. Until a proper standard for impairment can be agreed upon, the safety of Maryland's workplaces will remain in question.

Additional consideration must also be given to the other potentially unforeseen consequences related to the issue of liability for private-sector employers, including the impact on workplace insurance rates, existing agreements with labor unions, and multi-state companies also located in jurisdictions that have not legalized adult recreational cannabis use. MAA understands that the voters of Maryland have had their say on this matter, but Senate Bill 516 requires significant amendments before it should be enacted.

We appreciate you taking the time to address our concerns about Senate Bill 516, and we would be glad to come to the table during any potential work sessions to improve this bill.

Sincerely,

A handwritten signature in cursive script that reads "Marshall Klinefelter". The signature is written in a dark ink and is positioned above the typed name.

Marshall Klinefelter  
President  
Maryland Asphalt Association

**SB 516\_MTBMA\_LOI.pdf**

Uploaded by: Rachel Clark

Position: INFO



March 9, 2023

Senator Melony Griffith, Chair  
Senate Finance Committee  
3 East, Miller Senate Office Building  
Annapolis, MD 21401

Senator Guy Guzzone, Chair  
Senate Budget and Taxation Committee  
3 West, Miller Senate Office Building  
Annapolis, MD 21401

**RE: Senate Bill 516 – LETTER OF INQUIRY – Cannabis Reform**

Dear Chairs Griffith and Guzzone and Members of the Committees:

The Maryland Transportation Builders and Materials Association (MTBMA) has been and continues to serve as the voice for Maryland's construction transportation industry since 1932. Our association is comprised of 200 members. MTBMA encourages, develops, and protects the prestige of the transportation construction and materials industry in Maryland by establishing and maintaining respected relationships with federal, state, and local public officials. We proactively work with regulatory agencies and governing bodies to represent the interests of the transportation industry and advocate for adequate state and federal funding for Maryland's multimodal transportation system.

Senate Bill 516 would establish the initial framework to legalize recreational adult cannabis use, specifically outlining the State's authority to regulate and tax the various elements of the new industry. Of particular interest to MTBMA is a section setting forth civil protections to be afforded to recreational cannabis users and potential areas of liability for public and private employers.

Without taking a position on the merits of the bill itself, MTBMA wishes to express concern about some areas that would impact our members—both from the employer and the employee side of the equation—as we strive to ensure worker safety. Our primary concern lies with the bill's lack of properly delineating between what constitutes responsible (i.e., protected) cannabis use and irresponsible cannabis use for which employers can take disciplinary action. While we appreciate the deference given to established employers' drug testing policies, the bill does not provide sufficient guidance on the issue of discipline for cannabis use while on the job. This might not pose much of a safety problem in many jobs around the State, but our members in the transportation construction industry work with some of the largest machinery in the world, so the lives of our employees—and those of every motorist on our roadways—depends on our ability to take appropriate disciplinary action if any of our workers show up under the influence of a mind-altering substance. Unlike with alcohol, there is no universally recognized and scientifically measurable level at which an individual can be declared impaired due to cannabis use, and the unique chemical makeup of cannabis makes it difficult for existing testing solutions to differentiate between current cannabis use and that performed sometime in the recent past. Until a proper standard for impairment can be agreed upon, the safety of Maryland's workplaces will remain in question.

Additional consideration must also be given to the other potentially unforeseen consequences related to the issue of liability for private-sector employers, including the impact on workplace insurance rates, existing agreements with labor unions, and multi-state companies also located in jurisdictions that have not legalized adult recreational cannabis use. MTBMA understands that the voters of Maryland have had their say on this matter, but Senate Bill 516 requires significant amendments before it should be enacted.

We appreciate you taking the time to address our concerns about Senate Bill 516, and we would be glad to come to the table during any potential work sessions to improve this bill.

Thank you,

A handwritten signature in blue ink, appearing to read 'Michael Sakata', with a long horizontal flourish extending to the right.

Michael Sakata  
President and CEO  
Maryland Transportation Builders and Materials Association

# **Sarah Price testimony bill SB0516 maryland general**

Uploaded by: Sarah Price

Position: INFO

Bill #SB516 Title: Cannabis Reform/ The Senate Finance Committee/ March 9, 2023

### Letter of Information

My name is Sarah Price and I live in Sharpsburg, MD. A few years ago, my son Eli was a happy young man, raised in an attentive, Christian home in a close-knit farming community. He was an "A" student, rebuilt his own Mercedes car engine, was hard-working, self-driven, and mature. About a year and a half ago, he first got marijuana joints from a fellow student at Boonsboro High School. When we found out, we expressed our concern and Eli said, "I'm not going to do anything addictive!" Eli had no mental condition or risk factors. Now he puffs THC dabs all day, every day and has become addicted.

We've offered education and treatment and have imposed restrictions to reduce his use; we limited his privacy, his car, Wi-Fi, and his driver's license. But his THC use only spiraled deeper and deeper. As a result of using THC, Eli started to fail his high school classes, lost many friends, no longer worked in his car shop, and has become just a shell of the fun-loving boy we used to know. He lost weight, had no ambition, and became withdrawn. Everyone who knows my son can't believe what has happened to this kid with so much promise. His sole focus now is to get high, and he believes that since marijuana is legal (or will be), it must be safe. He is a BHS senior getting THC from fellow classmates and from dealers outside of school. They use TikTok and other social media apps to "advertise." Kids are dabbing THC in school all day long, right in the classrooms. 18-year-old seniors are using their medical cannabis cards to sell it to younger kids.

Just a few weeks ago my son turned 18. He wanted to continue his THC use. He knows our rules of having a sober home and he decided to move out. This is a nightmare; it cuts through my heart like a knife. I hurt so bad that I feel like I'm drowning. I am so deeply sad and angry about what this has done to our children and their future.

My son, and others, are the victims of a predatory, for-profit marijuana industry. There should be a minimum age of 25 which is when the brain is more fully developed. Most importantly, there should be a THC potency cap (like Vermont and Connecticut). I know other families who have lost children due to marijuana.

The other night my husband prayed to God... "please, make it hard for my son to get the drugs, put obstacles in his path." If you're reading this story, YOU can be that obstacle. Today's marijuana is a dream-killer, it's too un-regulated, and killing our kids. Why is this allowed to happen? Please help to save our young people's lives!

Sarah Price,  
Sharpsburg, MD dsprice4@gmail.com