SB 322- PGCEX - Support.pdf Uploaded by: Alsobrooks, Angela

Position: FAV



THE PRINCE GEORGE'S COUNTY GOVERNMENT

OFFICE OF THE COUNTY EXECUTIVE

BILL: SPONSOR: HEARING DATE: COMMITTEE:	 Senate Bill 322 – Health – Health and Wellness Standards – Correctional Facilities and Health Care Facilities Senator Benson February 11, 2021 Finance 		
		CONTACT:	Intergovernmental Affairs Office, 301-780-8411
		POSITION:	SUPPORT

The Office of the Prince George's County Executive strongly **SUPPORTS Senate Bill 322 – Health – Health and Wellness Standards – Correctional Facilities and Health Care Facilities**, which requires specified health care facilities to offer plant-based meal options, plant-based food options, and plant-based beverages. The bill also establishes a Correctional Facilities Health and Wellness Pilot Program in which four correctional facilities selected for the pilot are required to offer plant-based meal options, plant-based food options, and plant-based beverages for general consumption.

Whether healthcare and correctional facilities offer plant-based meals as a Meatless Mondays or fulltime meal option as in CA, AZ, NY, and other jurisdictions, there are significant health, climate, and fiscal benefits to individuals and facility operators. In addition, some jurisdictions have determined plant-based meals meet the requirements of kosher and halal diets and other religions thereby simplifying meal preparation.

Hospitals nationwide are offering patients plant-based food options that combatrather than contribute—to chronic health conditions our population has struggled with. Eating meatless once a week can reduce a person's risk of cancer, cardiovascular disease, diabetes and obesity. The American Medical Association and American College of Cardiology recommend a plant-forward diet saying a "hospitalization can be a 'teachable moment' for patients who are ready to embrace nutrition as part of the healing process."

For the reasons stated above, the Office of the Prince George's County Executive strongly **SUPPORTS Senate Bill 322** and asks for a **FAVORABLE** report.

SB 322 Favorable Testimony-Center For Livability.p Uploaded by: Altema-Johnson , Daphne

Position: FAV

FAVORABLE

S.B. 322

Health and Wellness Standards - Correctional Facilities and Health Care Facilities

February 11, 2021

Presented by Daphene Altema-Johnson

Disclaimer: The opinions expressed herein are our own and do not necessarily reflect the views of The Johns Hopkins University.

Honorable Chair Kelley, Vice Chair Feldman and Members of the Senate Finance Committee,

Thank you for the opportunity to submit this statement for the record in support of SB 322.

We are researchers and educators at the Johns Hopkins Center for a Livable Future, an interdisciplinary academic center focused on food systems and public health. The Center is in the Bloomberg School of Public Health's Department of Environmental Health and Engineering. We have been researching the health and environmental impacts of dietary patterns, including Meatless Monday, a global movement with grassroots programs that encourage people to cut meat from their diets one day a week to promote personal and environmental health. Meatless Monday is a non-profit initiative of the Monday Campaigns which works in collaboration with our center, Columbia University and Syracuse University, and has been adopted in over 40 countries and in 22 languages. The Meatless Monday campaign has been successful because of its simple and actionable message. We believe that in expanding plant-based meal options in state prisons, SB 322 would improve the environmental and human health impacts associated with unhealthy dietary patterns for incarcerated individuals.

As public health professionals, we have reviewed the literature on the relationship between dietary patterns and chronic diseases, and the evidence is clear: high consumption of red and processed meat and low consumption of fruits and vegetables, whole grains and legumes are important risk factors contributing to heart disease, type 2 diabetes, stroke, colorectal cancer, and all-cause mortality."^{1,2,3,4} Currently, people who are incarcerated are being served approximately twice the United States Department of Agriculture (USDA) recommended 34-ounce equivalent

¹ Zheng Y, Li Y, Satija A, et al. (2019). Association of changes in red meat consumption with total and cause specific mortality among US women and men: Two prospective cohort studies. BMJ, 365, 12110.

² Schwingshackl, L., Hoffmann, G., Lampousi, A. M., Knüppel, S., Iqbal, K., Schwedhelm, C., ... & amp; Boeing, H. (2017). Food groups and risk of type 2 diabetes mellitus: a systematic review and meta-analysis of prospective studies. European Journal of Epidemiology, 32, 363–375.

³ Micha, R., Peñalvo, J. L., Cudhea, F., Imamura, F., Rehm, C. D., & amp; Mozaffarian, D. (2017). Association between dietary factors and mortality from heart disease, stroke, and type 2 diabetes in the United States. Jama, 317(9), 912-924.

⁴ Bouvard, V., Loomis, D., Guyton, K. Z., Grosse, Y., Ghissassi, F. E., Benbrahim-Tallaa, L., ... & amp; Corpet, D. (2015). Carcinogenicity of consumption of red and processed meat. The Lancet Oncology, 16(16), 1599-1600.

of animal protein per week (or 4.8 ounces/day; includes meat, dairy and eggs)⁵. Research shows an inverse association between whole grain intake and the risk of type 2 diabetes, meaning people who eat more whole grains tend to have lower risk of type 2 diabetes.⁶ Substituting daily half serving of meat with nuts or whole grains can decrease the risk of type 2 diabetes by 15%⁷. Foods like whole wheat, oats, quinoa, farro and rye, which are not currently offered at the correctional facilities, are important pantry staples when it comes to preventing or managing diabetes and heart disease.

In 2011, correctional facilities in Maryland spent \$3 million on hospitalizations of inmates for heart failure, renal failures, strokes, and acute respiratory failure⁸. However, taking preventative measures such as adopting basic lifestyle changes, like a plant-rich diet, will not only decrease hospitalization and prescription costs, but will also lower the risk of heart diseases, diabetes, obesity and some cancers. Overall, reducing the amount of meat incarcerated people consume by one day a week would afford people basic physiological benefits that are ultimately better for their health and are cost effective for the state of Maryland. Large numbers of studies have proven time and time again people who consume a diet high in vegetables, fruits, legumes and whole grains have a lower risk of heart disease, type 2 diabetes, obesity, some cancers, and stroke9. Per correctional facilities' policy, to regularly receive a plant-based meal such as lacto/ovo vegetarian, or vegan, an incarcerated person must have a medical prescription from a facility doctor. If they are able to receive and have more plant-based options available on a daily basis, they are likely to develop healthier eating habits. Furthermore, an incarcerated person only receives periodic health evaluations every four years, which means that many health conditions and/or illnesses have progressed to irreversible levels before intervention or treatments can start. This lack of healthy food access in prisons has not only severe health and equity implications, but economic ones as well.

In addition to the benefits listed above, decreasing meat and dairy consumption is also great for the environment. Large public institutions including school systems, universities, hospitals,

⁵ Healthy US-Style Pattern Recommended Intake Amounts.

https://fns-prod.azureedge.net/sites/default/files/usda_food_patterns/HealthyUS-StylePattern-RecommendedIntakeA_mounts.pdf

⁶ Kyro, C., Tjonneland, A., Overvad, K., Olsen, A., & Landberg, R. (2018). Higher Whole-Grain Intake Is Associated with Lower Risk of Type 2 Diabetes among Middle-Aged Men and Women: The Danish Diet, Cancer, and Health Cohort. *J Nutr, 148*(9), 1434-1444. doi:10.1093/jn/nxy112

⁷ Pan A, Sun Q, Bernstein AM, et al. Changes in red meat consumption and subsequent risk of type 2 diabetes mellitus: three cohorts of US men and women. JAMA Intern Med 2013;173:1328–35. doi:10.1001/jamainternmed.2013.6633

⁸ Wexford Health Sources, Inc., Maryland Department of Public Safety and Corrections Monthly UM Status Report 2011 <u>http://dpscs.maryland.gov/publicinfo/publications/pdfs/IHS/Medical-Services-Attachment-QA-13.pdf</u>

⁹Bertoia ML, Mukamal KJ, Cahill LE, Hou T, Ludwig DS, Mozaffarian D, Willett WC, Hu FB, Rimm EB. Changes in intake of fruits and vegetables and weight change in United States men and women followed for up to 24 years: analysis from three prospective cohort studies. *PLoS medicine*. 2015 Sep 22;12(9):e1001878.

correctional facilities and senior care residences hold tremendous purchasing power and supply about \$83 billion worth of food each year throughout the country.¹⁰ Many studies, including research from our center,¹¹ show that a small number of emissions-intensive foods, including meat and dairy account for the majority of the emissions associated with our diets. Encouraging a shift away from emissions-intensive foods and toward diets that are higher in plant-based proteins, fruits, and vegetables is critical for planetary and human health. Providing greater access to plant-based options in Maryland correctional facilities would position Maryland as a leader in promoting sustainable food systems and health. In addition, S.B. 768 would offer incarcerated people healthier dietary options by ensuring that healthy plant-based meals are offered to all incarcerated people.

Meatless Monday is a simple, yet effective, program that has garnered the attention of food brands, celebrities, restaurants, and many in the foodservice industry (hospitals, universities, K-12 and corporate companies). It uses weekly prompts and the unique cultural associations of Monday as the beginning of the week to positively affect a range of healthy behaviors, including eating healthy, exercising, and quitting smoking. Studies show Monday is the best day to begin healthier habits. According to a survey by Data Decision Group, 57% of people intend to eat healthier on Mondays. With Meatless Monday and plant-based options available in correctional facilities, people who are incarcerated would have a scheduled plant-based meal to possibly reduce the amount of animal protein consumed and increase intake of vegetables and plant-based foods to levels that are at least on par with the USDA recommendations.

S.B. 768 will benefit the climate and the health of thousands of vulnerable Maryland citizens. Thank you for your consideration, and I respectfully urge a favorable report.

Sincerely,

Daphene Altema-Johnson, MPH MBA

Program Officer Johns Hopkins Center for a Livable Future Johns Hopkins University

Becky Ramsing, MPH, RDN

Senior Program Officer Johns Hopkins Center for a Livable Future Johns Hopkins University

¹⁰ Santo, R. E., & M. (2019). From Foodservice Management Contracts to US Federal Legislation: Progress and Barriers in Values-Based Food Procurement Policies. In Institutions as Conscious Food Consumers (pp. 77-102). Academic Press.

¹¹ Kim, B. F., Santo, R. E., Scatterday, A. P., Fry, J. P., Synk, C. M., Cebron, S. R., ... & amp; Nachman, K.E.. (2019). Country-specific dietary shifts to mitigate climate and water crises. Global Environmental Change, 101926.

Sb322 Testimony.pdf Uploaded by: Benson, Joanne C. Position: FAV

JOANNE C. BENSON *Legislative District 24* Prince George's County

Finance Committee

Joint Committees Children, Youth, and Families Ending Homelessness Fair Practices and State Personnel Oversight Management of Public Funds Protocol



James Senate Office Building 11 Bladen Street, Room 214 Annapolis, Maryland 21401 301-858-3148 • 410-841-3148 800-492-7122 *Ext.* 3148 *Fax* 301-858-3149 • 410-841-3149 Joanne.Benson@senate.state.md.us

THE SENATE OF MARYLAND Annapolis, Maryland 21401

Testimony of Senator Joanne C. Benson

SB322 Health – Health and Wellness Standards – Correctional Facilities and Health Care Facilities

Good afternoon Madam Chair and esteemed members of the Finance Committee. Senate Bill 322 -Health – Health and Wellness Standards – Correctional Facilities and Health Care Facilities requires the Secretary of Health to adopt specified health and wellness standards for all State and local correctional facilities and related institutions, accredited hospitals, nonaccredited hospitals, accredited residential treatment centers, and nonaccredited residential treatment centers for which the Secretary adopts specified regulations.

- Approx. \$136,000 million per year in tax-payer dollars is spent on inmate healthcare for 19,000 inmates (*Corizon Health has a \$680 million contract for 5 yrs.*) or \$7,157 per inmate, which is up \$36 million from 2017.
- Approx. 105,000 prescriptions per month are written for inmate illness
- Approx. 30% of inmate healthcare cost is on chronic degenerative diseases
- Maryland inmates suffer from health disparities at a greater rate than the Maryland general population and 70% of the Maryland inmate population is African American¹
- As of the most recent public report of 2011 \$3 million was spent on hospitalizations of inmates for heart failure, renal failures, strokes, and acute respiratory failure²

Currently, while correctional facilities do offer lacto/ovo vegetarian options for each meal, they do not include whole meals rich in complex carbohydrates. Research has shown that the consumption of these complex carbohydrates can be instrumental in reducing and reversing chronic diseases that require medications to manage. Heart disease is the number one cause of death for all Maryland Residents, including inmates in correctional facilities, which can be reversed through plant-based nutrition.

In 2019, Maryland entered into a five (5) year \$680 million contract w/ Corizon to provide healthcare in our correctional facilities. The bill includes a reporting requirement to provide oversight and

¹ Maryland Department of Health, Minority Health Disparities October 2019 Report on Inmate Health

² Wexford Health Sources, Inc., Maryland Department of Public Safety and Corrections Monthly UM Status Report 2011 <u>http://dpscs.maryland.gov/publicinfo/publications/pdfs/IHS/Medical-Services-Attachment-QA-13.pdf</u>

transparency, so that any changes in illness or diagnoses of inmates that may result from the implementation of this legislation may be documented.

In conclusion, the goal of this bill is to provide better food choices which will result in healthier inmates and reduce medical cost.

Thus, I respectfully urge the committee for a favorable report on Senate Bill 322.

Favorable-SB-322 -Morgan-State.-Final-2-11-2021.pd Uploaded by: Brown, Ellis

Position: FAV



Division of Research and Economic Development

FAVORABLE

SB-322 Health Standards – Plant-Based Meals in Prisons and Hospitals

February 11, 2021 @ 1:30pm

Dear Chairs, Vice Chairs and Committees:

As the Assistant Vice President of Research and Innovation and Advocacy for Morgan State University ("Morgan"), it is a great honor and privilege to offer this letter of support of SB-322 Health and Wellness Standards - Correctional Facilities and Health Care Facilities. SB-322 serves as an opportunity for Morgan to expand its educational services to inmates while launching an innovative program that can bring evidenced based lifestyle therapeutic approaches to treating, and reversing chronic degenerative diseases to treat the cause of disease and not just symptoms, also known as Lifestyle Medicine.

Since 1999, Morgan State University has operated its Public Health Program to produce a new generation of public health professionals. In 2005, the School of Community Health and Policy (SCHP) was created to expand the University's health mission and program offerings to better respond to the need for a well prepared, diverse, culturally responsive health professions workforce. Salient characteristics of the School are its focus on urban communities, elimination of health disparities, and its use of a practice-based service learning framework.

Now that we are 20 years since the founding of the Public Health Program, and the health disparities in the communities Morgan serves have worsened with deaths from heart disease and diabetes complications souring to epic proportions. Our office of Research Innovation and Advocacy has embarked on an effort to produce a new generation of public health professionals equipped with new skills to tackle the health crisis of today.

In 2019, Morgan participated in a convening of all our Maryland HBCUs hosted by Attorney Saint-George, Political Action Chair of the NAACP Maryland State Conference, and the Maryland Chamber of Commerce, for the purpose of inviting our schools to participate in the U.S. Department of Education Second Chance Pell Grant program. The Pell program pays the tuition of inmates who desire to obtain an education in prison, which results in increased enrollment at each school. During the meeting Ms. Saint-George shared her goal introducing this bill during this 2020 Legislative Session and the need to create a prison education program that would help inmates to gain work ready skills as well as earn degrees so when they are released they are better equipped to be hired.

Division of Research and Economic Development Montebello Building, Suite 302 1700 E. Cold Spring Lane, Baltimore, MD, USA, 21251 Phone: 443.885.3447 Fax: 443.885.8280



Division of Research and Economic Development 2 | P a g e

Through the negotiation of the Letter of Intent for all the Maryland HBCUs with the DOE by Ms. Saint-George, all schools have or are now completing the application process to offer 4-year degree and certification programs in our Maryland prisons.

In 2019, Morgan participated in a convening of all our Maryland HBCUs hosted by Attorney Saint-George, Political Action Chair of the NAACP Maryland State Conference, and the Maryland Chamber of Commerce, for the purpose of inviting our schools to participate in the U.S. Department of Education Second Chance Pell Grant program. The Pell program pays the tuition of inmates who desire to obtain an education in prison, which results in increased enrollment at each school. During the meeting Ms. Saint-George shared her goal introducing this bill during this 2020 Legislative Session and the need to create a prison education program that would help inmates to gain work ready skills as well as earn degrees so when they are released they are better equipped to be hired. Through the negotiation of the Letter of Intent for all the Maryland HBCUs with the DOE by Ms. Saint-George, all schools have or are now completing the application process to offer 4-year degree and certification programs in our Maryland prisons.

Specifically, Morgan and Coppin have made requests to the DOE to offer a certification program in "Culinary Medicine" and Plant-based Nutrition, so that inmates can be trained in the preparation of plant-based meals not only for the prisons (to ensure that the quality and taste of the plant-based foods to be serve as a result of this bill is provided), but also to prepare inmates to become Plant-Based Chefs to meet the growing demand for chefs in the plant-based industry. As a result of Ms. Saint-George's summer convening, Morgan and Coppin has been introduced to the American College of Lifestyle Medicine Culinary Medicine curriculum as a new and innovative program that both schools can adopt to certify inmates and on campus students in this new area of Lifestyle Medicine. The data is clear that most chronic degenerative diseases that our schools of public health have equipped students to address are diseases created by lifestyle that can be reversed or prevented.

Therefore, it is now the mission of our school to train inmates and our students with 21st Century interventions of Lifestyle Medicine to address the root causes of diseases to change the health outcomes in our communities.

Consequently, Morgan State University fully supports the objectives of SB-322 and plans to become a partner with the prisons, the Maryland Department of Health, Office of Minority Health and Health Disparities and the hospitals to produce the next generation of public health workers equipped with evidenced based health care that focuses on the cause of disease in order to effectively reduce the health disparities that impact the prison population and Maryland residents.



Division of Research and Economic Development

3 | P a g e

Should your committee need additional information, please do not hesitate to contact me directly at <u>Timothy.Akers@Morgan.Edu</u>, 443.885.3798 (office), or 706.255.3963 (cell).

Sincerely, Timothy A. AKses

Timothy A. Akers, M.S., Ph.D. Assistant Vice President for Research Innovation and Advocacy Professor of Public Health Division of Research and Economic Development Morgan State University

Favorable--SB-322-AEC-Plant-Based Bill-2-11-2021.p

Uploaded by: Doggette, Esq., Jackson Position: FAV



February 11, 2021

Senator Dolores G. Kelley, Chair Senator Brian J. Feldman, Vice Chair Senate Finance Committee 3 East Miller Senate Office Building 11 Bladen Street Annapolis, MD 21401

RE: FAVORABLE – SB-322 – Health Standards – Plant-Based Meals in Prisons & Hospitals

Dear Chairs, Vice Chairs and Committees:

The Allegheny East Conference Corporation of Seventh-Day Adventists (AEC) operates and oversees 170, churches, 34 companies and 9 missions with a membership of over 40,000 that reside in the states of Delaware, Maryland, Virginia, West Virginia, New Jersey Pennsylvania, and Washington, D.C. In Maryland alone, we have approximately 174 SDA churches that represent approximately 60,000 members that include churches in the Columbia Union of churches. We are Bible-believing Christians who base faith, hope, and the future in Jesus Christ. The name 'Seventh-day' indicates our adherence to the Biblical Sabbath of Friday sundown to Saturday sundown, while 'Adventist' means we anticipate the promised return of Christ.

In addition, we operate health care institutions, like Adventist HealthCare, which is a not-for-profit health services organization based in Gaithersburg, Maryland that employs more than 6,000 people and provides healthcare for more than 400,000 individuals in the community each year.

The Seventh-day Adventist Church is considered a pioneer of the vegetarian movement in America. As early as 1863, one of our church founders advocated for a return to the plant-based diet outlined in Genesis 1:29 which states, "And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat." The word "meat" in Hebrew means food. Consequently, the Church teaches that the original diet ordained by God is a plant-based diet that includes fruits, nuts, grains, vegetables, legumes, and seeds historically called the vegetarian diet, now termed a plant-based diet.

While the Church recognizes the Bible's express command in the Genesis, due to the mitigating circumstance of sin entering the world and the flood, the Church also recognizes that the Bible permitted the consumption of animal-based foods after the flood, with the restriction that only clean animals should be eaten. Nevertheless, the Church overall encourages its members to choose the Genesis 1:29 diet as the best dietary choice for spiritual growth and physical development based on the expressed Biblical command and based on the research done around the world that supports the Genesis diet as one that can prevent and even reverse disease.

However, many other variations of the vegetarian diet, like the lacto-ovo vegetarian diet that includes dairy and eggs, are also practiced by members according to their choice. Not all members are plant-based/vegetarians.

Nevertheless, over the Churches 150+ years of commitment to the plant-based diet, the Church is known for founding vegetarian food manufacturing companies around world. Most notable, is our Church university, Loma Linda University, large-scale long-term epidemiological study on vegetarians called the Adventist Health Study, which demonstrated for the first time in the U.S. the health benefits of the plant-based/vegetarian diet. The study showed vegetarians had much lower rates of heart disease, cancer, diabetes, stroke and several other major degenerative diseases. Later in 2004, National Geographic performed a 10-year study called the Blue Zones and identified Seventh-day Adventist members living in Loma Linda, California are amongst those who live the longest in the world.

The Blue Zone study identified the healthful living practices, including the plant-based/vegetarian dietary lifestyle of the Church as one of the main reasons for longer life for those living in Loma Linda. Due to our history as a pioneer plant-based Church, AEC supports the legislative objectives of SB-322, which is to provide inmates and patients in hospitals the ability to choose plant-base meal options. While our Church hospitals share the rich history of vegetarian advocacy, due to our Churches respect for the dietary choices of the people we serve in our hospitals, our hospitals have not predominantly served plant-based meals in order to accommodate the taste preferences of its patients.

Consequently, the Church sees SB 322 as an opportunity for our hospitals to return to our historic Bible and evidenced based roots of vegetarianism, which our own epidemiological studies proved long ago, as the solution to preventing and even reversing chronic degenerative disease.

Furthermore, one of the Churches very active ministries in the U.S. are our prison ministries and SB-322 will allow our prison inmate converts to have the option to choose plant-based meals in Maryland correctional facilities?

It is for these reasons that the AEC requests a favorable report on SB-322.

Sincerely,

4Dozethe Jr

Jackson M. Doggette Jr., Esq., General Counsel

testimony.pdf Uploaded by: Haas, Kyle Position: FAV

Plant based diets should be a right, and are healthy and ethical.

SB 322 Favorable FarmtoPrison_WrittenTestimony_SB3

Uploaded by: Kathuria, Kanav Position: FAV



February 11, 2021

Senator Dolores G. Kelley, Chair Senator Brian J. Feldman, Vice Chair Senate Finance Committee 3 East Miller Senate Office Building 11 Bladen Street Annapolis, MD 21401

Subject: SB –322– Health Standards Plant-Based Meals in Prisons & Hospitals

Dear Chair, Vice Chair and Committee:

The Farm to Prison Project was founded in 2018 in order to address the egregiously poor quality of food provision in Maryland's state-run correctional facilities. Over the past two years, we have conducted IRB approved, in-depth research on food conditions in prisons throughout the state of Maryland, focusing on all aspects of food service such as the availability of fresh produce; the impacts of food on currently and formerly incarcerated individuals' short- and long-term physical and mental health; the quantity and quality of meals; how poor food conditions create forms of violence; changes in food service over time; and the oftentimes abusive, hostile, and rodent-infested kitchens and eating environments themselves. Our research involved speaking with both currently and formerly incarcerated individuals as well as correctional staff in various facilities across Maryland.

The issues with food provision and industrial food production in Maryland's prisons are structural, multi-faceted, and ultimately rooted in larger systems of racial and economic oppression. One of the most common themes to arise from our research was that the food served to incarcerated individuals is, at its core, **not fit for human consumption**. Our research uncovered how individuals receive meal portions not enough to feed a child, much less an adult; the almost complete scarcity of fresh produce; the ways in which storage and preparation practices deplete the already-poor nutritional value of food; instances of large groups of people falling sick after consuming spoiled or contaminated foods; and consistent testimonies from individuals who consistently observed cockroaches, mice, rats, insects, and maggots in cooking equipment, the prison dining hall, and even in their own meal trays.

Beyond the incredibly dehumanizing aspects of food service, our research also uncovered the impacts of food on currently and formerly incarcerated individuals' short- and longterm physical and mental health. Generally speaking, food service in Maryland's prisons is not nutritious. Meals remain high in sodium, consist primarily on starches and empty calories in order to keep individuals full, and rely almost exclusively on canned produce as opposed to fresh fruits and vegetables. As a result, individuals detailed how food provision not only exacerbates any pre-existing health conditions such as diabetes, hypertension, and chronic heart disease, but **instead serves as their root cause**. The implications of this are profound – the food that the state of Maryland is serving to individuals in their custody induces chronic health conditions that can last for the rest of a person's life. Significantly, due to this invisible "collateral consequence" of incarceration, **food provision in Maryland's prison is a form of slow and premature death**. Furthermore, as the "average length of stay" at a DPSCS-run facility is about 7 years, the implications of such long-term impacts on health extend far beyond the walls of prison to the communities where formerly incarcerated citizens return – many of which again are deprived access to fresh produce due to the material conditions of food apartheid.

In sum, food provision in Maryland's prisons constitutes a public health and human rights crisis. Instead of serving as a source of nourishment, food is weaponized as a form of control and dehumanization; a tool of violence; and ultimately a means to cut short a person's life. Truly improving food service in Maryland's correctional facilities must necessarily include a complete overhaul of the ideologies, material conditions, food systems, policies and procedures, and nutritional guidelines currently shaping the experience of eating in confinement, as well as interrogating the larger oppressive role of prison in our society. One step in this direction would be to increase the availability of plant-based meals available in prison, which bill SB-322 aims to do.

Sincerely,

athur

Kanav Kathuria Founder and Executive Director The Farm to Prison Project

SUPPORT.pdf Uploaded by: Kotler, Jennifer Position: FAV

I support this bill! I eat a plant based diet and worry about being out of commission at a hospital and being fed meat and not having another hospital.

Lathon-Presentation - 2021.pdf Uploaded by: Lathon, PhD (Nutrition), Ruby Position: FAV



WUSCI*9

WPFW 89.3 FM

Jazz and Justice







ADMAP TO

With Dr. Ruby

STIC HEALTH



645

College of Plant-Based Lifestyle Medicine



Colleges & Univer

Maryland Department of Public Safety & Corrections – Analysis of 5 Week Meal Menu in Prison



Correctional facilities (25 million meals)

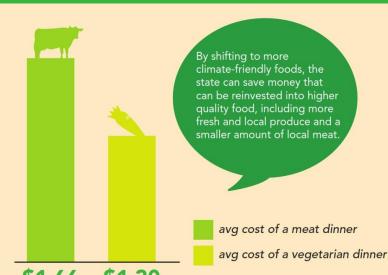
2 X more than the maximum recommendation of 26 oz per week from the Dietary Guidelines for Americans





Average 52oz meat, poultry & eggs per week Average 23 oz of fruit & veggies per week

Cost Per Meal 5x Less



Cost of Health Care



\$136 million annually on health care
 \$19 per day on health care

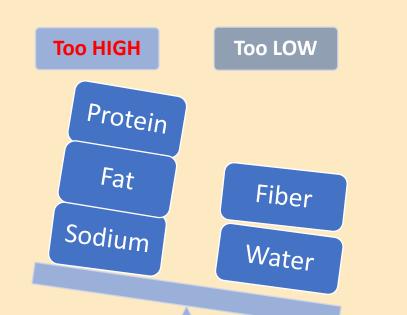


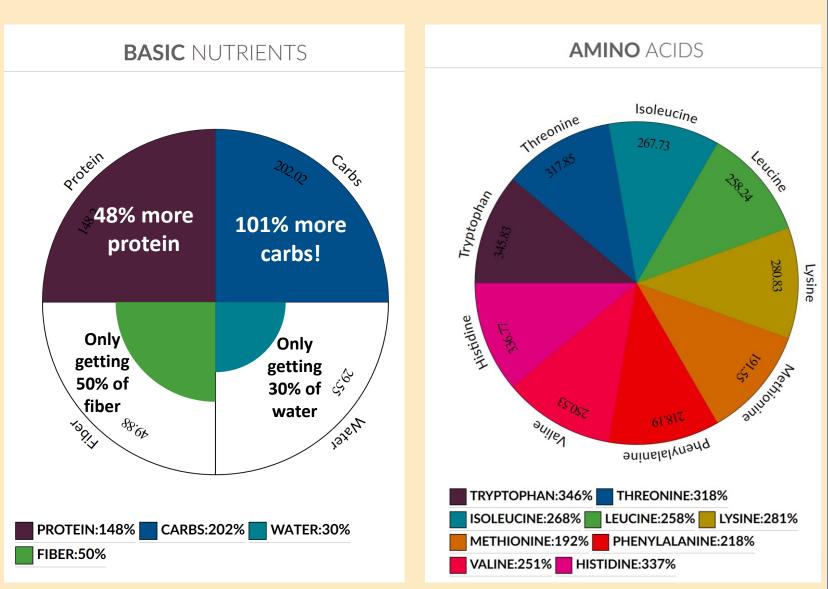
Average Daily Meal is Deficient In Key Nutrients:

Choline 29% Vitamin E 55% **Water 30%** Fiber 50%

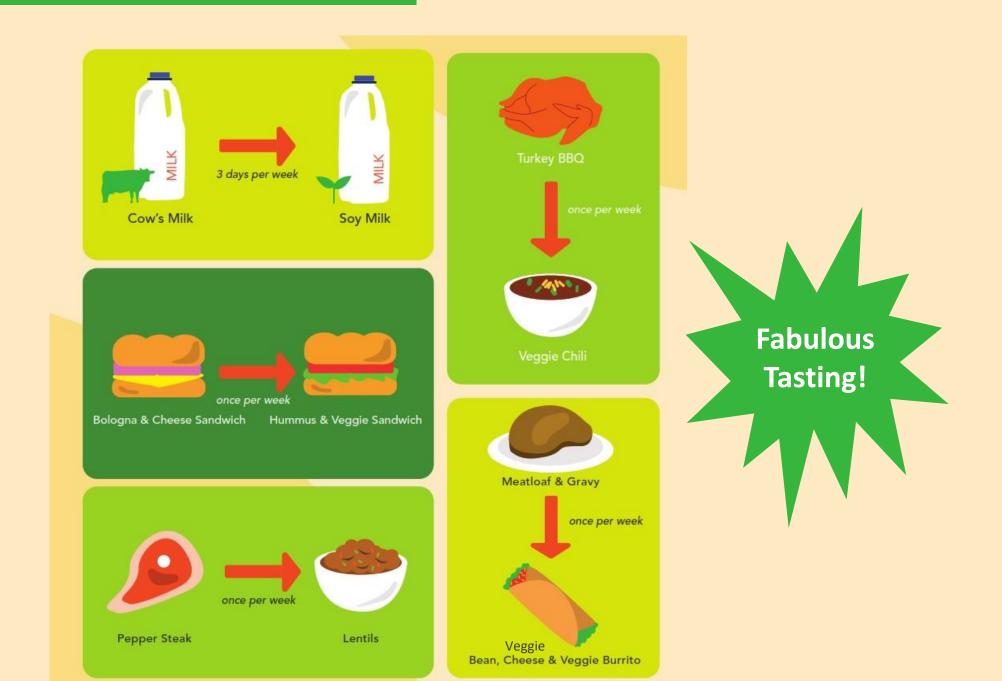
Potassium 55% Calcium 75%

Average Daily Meal Provides **Dangerous Overconsumption** of Other Nutrients:





EASY & SIMPLE CHANGES



Easy Simple Recipes











College of Plant-Based Lifestyle Medicine

CONTACT: Ruby Lathon, President Phone: 202-709-7829 Email: info@HBCULifestyleMedicine.com

Historically Black

RESOURCES

- Prison Plant-Based Meal Planning & Budget
- Prison Medical Provider Training In "Food As Medicine"

Colleges & Universities

- Inmate Plant-Based Nutrition Education & Culinary Ed.

Letter of Support -Dr.Ruby-Lathon- SB-322-2-11-202 Uploaded by: Lathon, PhD (Nutrition), Ruby

Position: FAV



FAVORABLE - <u>SB –322</u> Health Standards Plant-Based Meals in Prisons & Hospitals February 11, 2021 @ 1:30pm

Dear Chair, Vice Chair and Committee:

The Standard American Diet (SAD) is a modern dietary pattern that is generally characterized by high intakes of red meat, processed meat, pre-packaged foods, butter, fried foods, high-fat dairy products, eggs, refined grains, potatoes, corn (and high-fructose corn syrup) and high-sugar drinks. While the SAD diet is what Americans choose to eat, a review of the 5-week meal cycle, which shows the food served by Maryland Department of Public Safety in its state-wide correctional facilities, shows that the inmates (who do not have a choice of what they can eat) are served 25 million meals a year of the same SAD diet, which consist on average of 52 oz of meat, poultry and eggs per week. This analysis shows that meals are deficient in key nutrients such as fiber, vitamin K (from fresh greens) and several other vitamins, and provides significantly too much protein, fat and sodium. The analysis also shows that inmates are receiving 48% more protein and 101% more carbohydrates than the recommended daily allowance, while receiving 50% less fiber and 30% less water recommended for a baseline healthy diet.

What makes this diet particularly SAD, is that animal food served to the inmates is almost 2 times than the maximum recommendation of 26 oz per week from the Dietary Guidelines for Americans. As a certified holistic nutritionist, and wellness advocate for the life-saving benefits of plant-based nutrition, I can say, based on my review of the DPSC Master Meal Cycle, that the diet served to the inmates in Maryland's correctional facilities substantially increases the inmates risk of obesity, heart disease, diabetes, stroke and some forms of cancer.

If an inmate went into any one of the facilities without any disease and not on medication, after several years of eating the food in corrections, the inmate is bound to have some type of chronic disease.

I earned my Ph.D. and M.S. in Industrial and Systems Engineering, from the University of Alabama in Huntsville and what I see as a key problem is the fact that more is spent on treating chronic disease, at \$19 per day per inmate or \$136 million per year as compared to the \$1.66 spent on meals. These spend amounts need to be reversed, wherein more is spent on whole plant-based food and less on prescriptions and expensive surgeries. Another problem with the prison food services, is the quantity and quality of the food served. Based on the master meal cycle the quality of food served is poor due to highly processed meats, breads and sugar filled products. The quantity of extremely processed foods, containing high amounts of saturated fats, cholesterol and sugar are much too high. Additionally, it is reported that the food, taste's bad and is not properly handled, which results in contamination and spoilage. According to reports by the prison research group "Farm To Prison" which has analyzed the food production and procurement system in most of the state facilities for the last year, the prison food is cooked and served by the inmates who are rotated out in and out of the kitchen every 6 months. This rapid turnover of inmate workers, contributes to poor quality food and improper handling due to quick and ineffective training.

To address these nutritional, quantity, and quality issues, I will be working with Coppin State and Bowies State to provide a Plant-Based Culinary Medicine and nutrition course in the prisons to train the workers and inmates so that they will choose the plant-based meal options provided through SB -322. Dr. Tracy Murry will speak more about the U.S. Department Second Chance Pell Grant program that allows universities to enter the prisons to offer degree and certificate programs.

Therefore, through training, education and the passage of SB-322, I am, along with the medical professionals of the newly formed 501c3 - the HBCU College of Plant-Based Lifestyle Medicine for which I serve as President, confident that inmates who enter Maryland's correctional facilities can, if they choose, leave in better health thereby costing the state less money on health care and reduce recidivism.

Sincerely,

Ruby Lathon, PhD, MS Certified Holistic Nutritionist Director, Roadmap to Holistic Health

Testimony ele.pdf Uploaded by: Lopez Estrada, Edith Position: FAV

Testimony in support of: Senate Bill 322:Health – Health and Wellness Standards – Correctional Facilities and Health Care Facilities in the State of Maryland

Submitted by: Edith Lopez Estrada 2512 Oswego Avenue Baltimore, MD 21215

Dear members of the Maryland State Senate,

My name is Edith Lopez Estrada and I live in Baltimore, Maryland. I am a data analyst for HHS and am an active member in my community doing food sovereignty work in the city. I am writing to you because I know the importance of a plant-based diet.

Many of our communities have spoken up about the types of food that they are served in prisons, and the lack of access to fresh, plant-based foods. There have been numerous studies outlining the health outcomes of a plant-based diet, and public health benefits of consuming a plant-based diet. The *Journal of the American Heart Association* published <u>a review</u> co-authored by <u>Kim</u> <u>Williams Sr., MD</u> that specifically looked at the underlying health disparities that contribute to heart disease in the United States. The review summarizes research behind diet, one of the top modifiable risk factors for heart disease, and the disproportionate effects of racial, economic, and social disparities on diet quality.

I urge you to support Senate Bill 322 so that people in prisons and hospitals have the option to choose a plant-based meal, for the sake of their health.

Thank you for your consideration.

Edith Lopez Estrada

Testimony.pdf Uploaded by: Money, Namita Position: FAV

Testimony in support of: Senate Bill 322:Health – Health and Wellness Standards – Correctional Facilities and Health Care Facilities in the State of Maryland

Submitted by: Namita Money 2512 Oswego Avenue Baltimore, MD 21215

Dear members of the Maryland State Senate,

My name is Namita Money and I live in Baltimore, Maryland. I work in Black food sovereignty in the city, and am well versed in the importance of diet in preventing and reversing chronic illnesses.

Many of our communities have spoken up about the types of food that they are served in prisons, and the lack of access to fresh, plant-based foods. There have been numerous studies outlining the health outcomes of a plant-based diet, and public health benefits of consuming a plant-based diet. The *Journal of the American Heart Association* published <u>a review</u> co-authored by <u>Kim</u> <u>Williams Sr., MD</u> that specifically looked at the underlying health disparities that contribute to heart disease in the United States. The review summarizes research behind diet, one of the top modifiable risk factors for heart disease, and the disproportionate effects of racial, economic, and social disparities on diet quality.

I urge you to support Senate Bill 322 so that people in prisons and hospitals have the option to choose a plant-based meal, for the sake of their health.

Thank you for your consideration.

Namita Money

Favorale- SB-322 -Coppin Statut U-2-11-2021.pdf Uploaded by: Murry, PhD (Dean of College of Health Sciences), Tracy Position: FAV



FAVORABLE SB-322

Health and Wellness Standards - Correctional Facilities and Health Care Facilities ("PLANT-BASED MEAL Bill FOR PRISONS & HOSPITALS") February 11, 2021 @ 1:30PM

Dear Chair, Vice Chair and Committee:

Violence and chronic diseases are plaguing communities of color. A cause of chronic disease stems from unhealthy eating and living. The correlation between chronic disease, unhealthy eating and living can be traced to fear and violence in the communities. In the 70's and 80's, people were more likely to spend more time outside engaging in physical activities. More specifically, children and young adults were more engaged in physical activities outside of their homes in urban settings considering violence and crime were not tolerated in what was considered as Clean Block Neighborhoods (Afro Staff, 2017). Now, residents of those once calm and peaceful neighborhoods are too intimidated by gangs and drug solicitations to spend time outside of their homes or nearby parks (Katz, Webb, & Armstrong, 2003).

Regarding the inmate population, prisoners are not able to choose when they eat, the way food is prepared, where they will eat or what they will eat which can cause great frustration with the inmates, resulting in more violence as a way of resisting the institutional framework ("Inmate not entitled to special fasting diet.", 2018).

Coppin State University, an HBCU is uniquely positioned to educate prisoners with dedicated professors who can teach the benefits of plant-based nutrition and lifestyle management to help inmates to make the right food choices – currently they do not have choice and passing this bill will give them the right to choose and we as professors are well equipped to teach them how to make effective choices.

For example, diabetes and prediabetes cost the state of Maryland \$6.5 billion dollars per year. A plant-based diet can address this health care issue. Coppin State University College of Health Profession address this healthcare and challenge in addition to cardiovascular health awareness.

Coppin's Community Health Center (CHC) is proof of the commitment to community engagement by providing health services including health education and preventive-care to reduce health disparities.

The majority of Coppin's College of Health Professions students (nursing and allied health) are recruited from Baltimore City and the immediate surrounding area. Over 90 percent of the students in the Helene Fuld School of Nursing (HFSON) and the School of Allied Health (SAH) are "underserved" from an educationally or economically disadvantaged background or a racial or ethnic majority underrepresented in health care. Our student and faculty population would be able to fulfil the demand for community-minded health workers equipped with cultural sensitivity and expertise in helping underserved communities to make "Lifestyle Changes" to improve their health and reduce health disparities.



Chair, Vice Chair and Committee Page 2 February 11, 2021

Plant-based diets have been in the African American community since the 60s and 70s with the Black Hebrew Israelites and the Nation of Islam (Williams, 2019). The embracing of the plant-based diet during this era was a way of becoming healthier and reducing the consumption of medicine that may cause more health problems. With the insurgence of fast-food restaurants in our communities, or food deserts, unhealthy lifestyles and morbidity rates have increased.

Your passage of this bill will allow our schools to increase enrollment with new student populations while at the same time directly reducing health disparities in prisons and the community. Thus, this will allow us to respond to the demand for plant-based lifestyle management alternatives to meat. the health care delivery models that are appropriate to the community.

CSU, as an HBCU, is ready to help make the outcomes of SB 322 a measurable success.

Sincerely,

hacey & Muray

Tracey L. Murray, DNP, CRNP, FNP-BC, RN Dean and Professor Chief Academic Nursing Officer Director of the Health Centers

References

Afro Staff. (2017). AFRO Clean Block Campaign Returns. *The Afro American Newspapers*. Retrieved from <u>https://www.afro.com/afro-clean-block-campaign-returns/</u>

Inmate not entitled to special fasting diet. (2018, October 28). *Virginia Lawyers Weekly*. Retrieved from https://link-gale-com.ezproxy.umuc.edu/apps/doc/A560654874/AONE?u=umd_umuc&sid=AONE&xid=87ad964d

Katz, C. M., Webb, V. J., & Armstrong, T. A. (2003). Fear of gangs: A test of alternative theoretical models. *Justice Quarterly*, 20(1), 95–130. <u>https://doi.org/10.1080/07418820300095471</u>

Williams, J. P. (2019). Black Americans Ditch Meat — and Stereotypes. U.S. News - The Civic Report, C11.

Payne-Support SB 322.pdf Uploaded by: Payne, Alex

Position: FAV

Written Testimony IN SUPPORT of

Senate Bill 322 for Health and Wellness Standards in Correctional Facilities and Health Care Facilities

Alexander Payne

Constituent, District 45

The finance committee is undoubtedly aware that the dietary choices we make have lasting impacts for our health and our economic wellbeing. From the lessons we learn through our parents, to the lessons we pass down to our children, we try and instill the virtues of healthy, nutritious meals so that we can live long and fulfilling lives. The state has a similar obligation for those under its care. People in correctional and health care facilities deserve access to healthier, more nutritious options, both for their personal dignity and for the state's long term financial benefit.

Good food nourishes and sustains the body and soul. What we cook and eat affirms who we are as individuals. However, this positive relationship with food—an essential part of being human—is denied every day to people in correctional and health care facilities. Typical meals, which are high in salt, sugar, and harmful fats, have immediate and long-term impacts to those in these facilities and the state entities responsible for their care. Lack of access to quality food sends a message to those eating it that the state does not care about them. Cost-cutting measures that sacrifice food quality in the short-term inevitably creates burdensome long-term costs when the state pays for the medical care of preventable food-related illnesses and other chronic conditions.

As the preamble of Senate Bill 322 notes, there is ample evidence that the state will save money in the long-term by improving its nutritional standards in correctional and health facilities. There is strong and increasing evidence that incorporating plant-based foods into our diets lowers the risk of coronary heart disease, high blood pressure, and diabetes. By decreasing future spending on medical care for diet-related illnesses and disease, the investment in higher nutritional standards will pay for itself and strengthen communities through positive health outcomes long after people leave the state's care.

Over 95% of people who serve time in incarcerated facilities will return to society, and their health upon release will have lasting impacts for themselves and our communities. Addressing nutritional deficiencies, satiating hunger, and restoring human agency by giving incarcerated people some choice in what they eat can profoundly improve physical and mental health. This will prepare people to become fully engaged parents, family members, neighbors, and work

colleagues after release. These outcomes will spur larger improvements in public health and safety, reducing costs in terms of public state health expenditures and private insurance premiums.

In nation-wide surveys,[1] incarcerated people indicate that the food served to them is degrading and inadequate. Less than one-in-six said that they had consistent access to fruits and vegetables. Three-fourths reported receiving trays with spoiled food. Nine-in-ten stated that their meals neither tasted good nor looked appetizing. Over 90% responded that they did not have enough food to feel full. And many inmates who were assigned to work prison kitchens reported serving packages of chicken and beef marked "not for human consumption." Maryland can, and should, be better than these national trends.

Lack of access to health and nutritional food is also a symptom of a larger systemic malady: our dependence on a dehumanizing criminal justice system to address harm. Lower-income communities of color, who live in areas where affordable healthy food is scarce, disproportionately lose members to prison and then struggle to support them when they return home in worse health. Correctional and health care facilities function as out-of-sight food deserts, perpetuating patterns of poor health in communities that already experience profound inequities.

Senate Bill 322 gives people the fundamental human right to healthy food. Cutting costs by punishing people through inadequate and unhealthy food is short-sighted and costs the state, and our society, more in the long run. These standards should not be viewed as an unearned luxury, but simply a restoration of the basic food needs that every living person deserves. Establishing healthier standards and offering plant-based foods will also help restore the dignity necessary for people to properly rehabilitate or recover in our taxpayer funded facilities. We have the opportunity this session to reenvision what our facilities are capable of, and we must not allow the inadequate and self-defeating food policies of the past to continue. I urge you to vote yes on Senate Bill 322.

[1] Impact Justice, *Ending the Hidden Punishment of Food in Prison*, November 2020, https://impactjustice.org/wp-content/uploads/IJ-Eating-Behind-Bars-ExecutiveSummary.pdf.

Favorable-SB-322-NAACP-Prince-George_s County Bran Uploaded by: Ross, Robert

Position: FAV



February 11, 2021

Senator Dolores G. Kelley, Chair Senator Brian J. Feldman, Vice Chair Senate Finance Committee 3 East Miller Senate Office Building 11 Bladen Street Annapolis, MD 21401

Subject: FAVORABLE - SB 322– Health Standards Plant-Based Meals in Prisons & Hospitals.

Dear Chairs, Vice Chairs and Committee Members:

The NAACP Prince George's Branch supports SB-322 - Health and Wellness Standards - Correctional Facilities and Health Care Facilities as one of the greatest health and wellness bills that could improve the health of vulnerable and minority communities in legislative history. As you aware, in the latest 2017 report on the causes of death for Prince George's County residents it indicates that heart disease (1,450 deaths) and cancer (1,460 deaths) are responsible for half of all deaths in the county, followed by stroke (364 deaths) and diabetes (253 deaths). Many of these leading causes of death in the county are due to chronic disease. Unmanaged chronic disease is said to have contributed largely to health care costs. Prevention, management and even reversal of chronic disease can improve the overall health and life expectancy of residents in the county.

Therefore, in 2018, during the Maryland State Conference Annual Convention, the Prince George's County delegation supported the Plant-based Based Meals for hospitals, prisons, and K-12 Resolution authored by NAACP Montgomery County Branch member, social justice advocate and Attorney Jo Saint-George. The goal of the resolution was to ensure that the Maryland and Prince George's County residents are educated and empower with information on how to improve and reverse chronic disease through access to plant-based meals and medical providers trained in Lifestyle Medicine. Not only was the Plant-Based Meal Resolution voted and approved by the Maryland State Conference as a state-wide legislative priority, in July 2019 during the National Annual Convention, the NAACP nationals approved of the resolution which is now a national priority for the NAACP 2,200 branches and over 600,000 members.

As a national priority to reduce health disparities amongst our African-American members national wide, the Prince George's County Branch strongly supports the goals of SB-678/HB-819, which is to provide inmates and patients in hospitals with the ability to improve their health through healthy plant-based food options.

The NAACP Prince George's County Branch believes that an inmate's access to health whole plant-based foods in prison is critical to the economic development and health of our county. With over 70% of the Maryland's prison population are African American, many of which come from Prince George's County, having healthy returning citizens improves the overall health of the community.

Therefore, the Prince George's County Branch respectfully requests a favorable report on SB-322.

Sincerely,

Robert Ross President

Covid Intervention by National Institute of Herbal Uploaded by: Saint-George, Jo

Position: FAV

Acute Viral Respiratory Infection: Prevention and Therapeutics

Paul Bergner North American Institute of Medical Herbalism Portland, OR April 11, 2020 North American Institute of Medical Herbalism, Portland, OR http://naimh.com

Updated April 11, 2020

Paul Bergner is director of the North American Institute of Medical Herbalism and editor of the *Medical Herbalism* journal. He has practiced nutrition and medical herbalism since 1973. He has trained more than 400 student residents through an academic year in teaching clinics for clinical nutrition and medical herbalism since 1996. He has taught both medical herbalism and clinical nutrition at both the undergraduate and graduate levels of the university, and has developed and delivered more than 500 hours of Continuing Education for herbalists, nutritionists, acupuncturists, nurses, and naturopathic physicians. He is author of the *Healing* Power of Garlic, the Healing Power of Echinacea, Goldenseal and the Immune Herbs, The Healing Power of Minerals and Trace Elements, and four other books on herbalism, nutrition, ethnobotany, Chinese medicine, and naturopathic medicine. You can find supplemental materials and resources relating to the COVID-19 epidemic at the North American Institute of Medical Herbalism http://naimh.com/coronavirus

Copyright Paul Bergner, 2015, 2020 All rights Reserved.

Types of respiratory infections

Common cold (mortality uncommon)

- Rhinovirus. Spring, Summer, Early Fall
- Coronavirus. Winter and early spring (3-4 species)
- RSV and parainfluenza. Fall to Spring, or any.
- Unidentified virus. 10-20%
- Seasonal influenza (mortality 0.1 to 0.2 %)
 - Various mutations of Influenza A or B virus. December to March
- COVID-19 (mortality 2% ?). December to ?
- SARS coronavirus (mortality 9.7%). November to July.

Infection

- A novel virus can infect a perfectly healthy individual.
- A perfectly healthy individual may have strong vital symptoms to infection.
- Infection in a healthy individual is less likely to lead to complications such as pneumonia.
- The most mortality in influenza and/or COVID-19 occurs in the elderly and those with pre-existing conditions or poor health.
- In COVID-19 apparently healthy younger adults can develop severe illness and die. This may be due to host issues such as malnutrition or vitamin D deficiency.
- Deficiencies may result in a sub optimal immune response, and at the same time excessive inflammation in complicated disease.

Possible host responses

- Acquire immunity with no visible symptoms
- Experience normal symptoms of fever and cough, myalgia, fatigue but with mild expression and normal duration.
- Experience normal symptoms with high fever and severe cough, severe myalgia, normal duration.
- Experience normal or severe symptoms, prolonged duration, with progression to complications, such a pneumonia, multi-organ, cytokine storm
- Death

Damage-Response in respiratory viral infection

Immune weakness

- Inefficient antibody response
- Inefficient cell-mediated response
- Complications of pneumonia or multi-organ involvement

Excessive response

- Excess inflammatory cytokines
- Massive systemic inflammation
- Occurs in end-stage disease complications such as pneumonia

Both responses may be mediated by vitamin D or nutrient deficiencies

Pathophysiology: Cytokines

- A beneficial anti-viral immune response common to all viral respiratory infections
- The following was observed in *mild influenza A infection* with seasonal virus
 - IL-6 and IFN-a had biphasic peaks on day 2 (17 x normal) and 5 (14 x normal)
 - TNF-A peaks on day 4 then rapidly drops off
 - IL peaks on day 4 (59x normal) lingering into day 6
 - Others may have unique periods

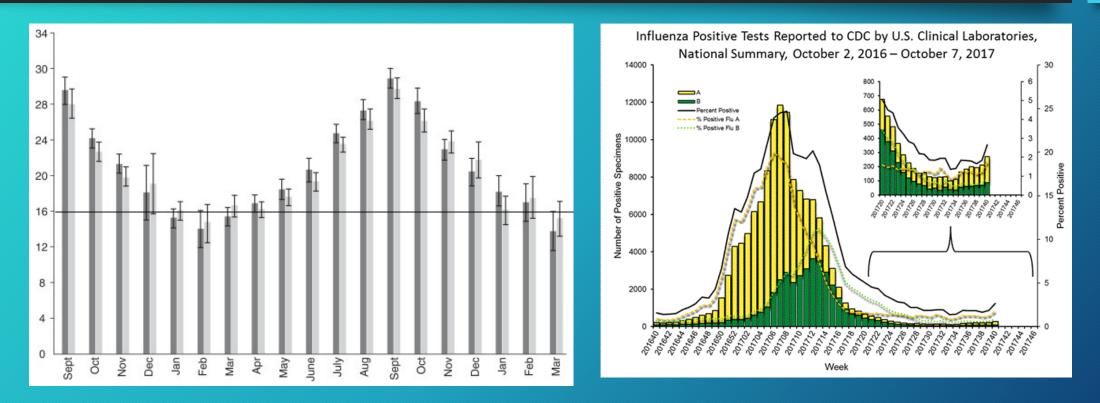
Cytokine storm

- Excessive cytokine response may occur in vitamin D deficiency, pneumonia, multi-organ infection, sepsis. It is a phenomenon of late-stage disease for patients in or on their way to intensive care.
- The effects of herbal medicines on individual cytokines in isolated studies cannot be extrapolated to clinical effects.
- Research on Echinacea and Sambucus show a mix of effects on cytokines, stimulating some immune enhancing (inflammatory) ones and some regulatory (inflammation modulating)
- Astragalus has a traditional contraindication in acute febrile illness unless it is specifically indicated by symptoms of chi deficiency according to the Chinese system.
- See paper with full discussion and complete references: http://naimh.com/coronavirus

Pathophysiology: Vitamin D

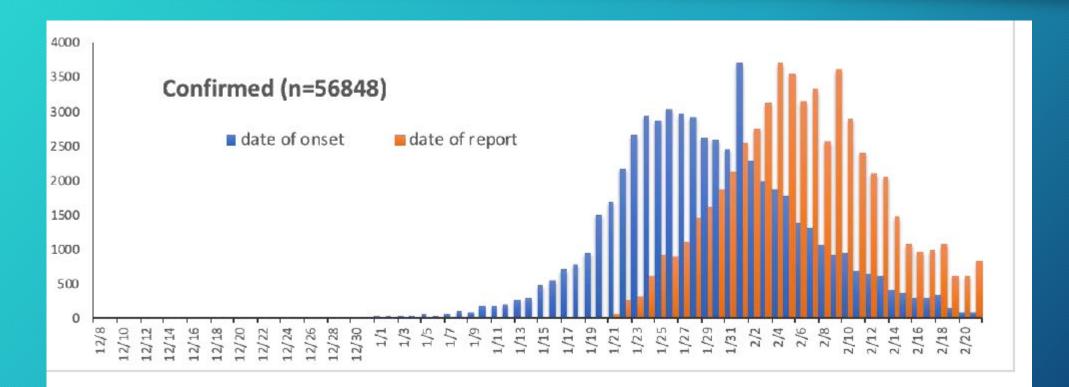
- Vitamin D essential for production of immuno-competence proteins in the immune cells of the respiratory tract (discovery in 2004)
- Vitamin D stimulates immuno-modulatory cytokines, putting a brake on cytokine "storm"
- Respiratory viral or bacterial infections are proposed as part of the profile of vitamin D deficiency syndrome.

The vitamin D winter



Vitamin D levels in ng/mL in seasons in USA (left) and positive influenza tests. The black line is the level at which 1% of children develop Rickets, and at which *respiratory infections double*.

COVID-19 and vitamin D winter



The COVID-19 virus is apparently following the same pattern

Sun Avoidance/Vitamin D

- Average US wintertime Vitamin D levels (25(OH)D3) are below 16 ng/mL.
- At this level respiratory infections double compared to the summertime average of 30 ng/mL
- In temperate North American, people make no vitamin D from mid-October to mid-March because of a low sun angle.
- If one is not supplementing vitamin D in winter, assume a pathologically low level for respiratory immunity

Looker AC et al. Vitamin D Status: United States, 2001-2006 NCHS Data Brief ■ No. 59 ■ March 2011

Prevention: Micronutrients

- Zinc
- A vitamin
- C vitamin
- E vitamin
- Selenium

9-50% deficient
up to 30% of children
18% severely deficient
90% deficient
50% sub-optimal

- Essential fatty acids deficiency common
- Not heroic, just sufficient to correct deficiencies

Daily Supplement protocol

- Vitamin D
- Zinc 25 mg (lozenges with exposure)
- Vitamin C
- Vitamin E
- Selenium
- Omega-3 oil

100-200 IU

500-1000 mg

4,000 to 7,000 IU

- 200 mcg
- 1-3 grams combined EPA + DHA

Vitamin D3 dosing if exposed

- "If the ability of vitamin D to stimulate the production of virucidal antimicrobial peptides and to suppress cytokine and chemokine production is clinically significant, then pharmacological doses (1000– 2000 IU/kg per day for several days) may be useful in the treatment of those viral respiratory infections that peak in wintertime."
- This translates to 75,000 to 150,000 IU/day for several days in 75 Kg individual with exposure or symptomatic influenza or COVID-19 infection.
- Alternately, 50,000 IU/day for 6 days.
- These doses are non-toxic. For more than 100 years, infants and toddlers with Rickets have been administered a single dose of 300,000 IU of vitamin D, and this may also be given seasonally to adults in Scandinavia

Cannell JJ, Vieth R, Umhau JC, Holick MF, Grant WB, Madronich S, Garland CF, Giovannucci E. Epidemic influenza and vitamin D. *Epidemiol Infect*. 2006;**134**:1129-1140.

Lifestyle factors during prevalence

- Avoid sugar and high glycemic foods.
- Avoid known food allergens
- Garlic in the diet, 1-3 cloves cooked, or raw in appropriate medium
- Exercise to spike body temperature and metabolism
- Sauna, sweat, hot tub
- Smudge, Smudge shower.

Optimal vitamin D and critical disease

- In a review of typical solar radiation in twelve locations during the 1918 influenza epidemic, lower radiation (and lower implied vitamin D production) was strongly associated with progression to pneumonia and with mortality (Grant and Giovannucci, 2004).
- In a review article of 14 previous studies looking at consequences of vitamin D deficiency in critically ill hospitalized patients, levels of 25(OH)D3 of less than 20 ng/mL were associated with a 57% increased rate of infection, 46% increase in sepsis, in-hospital mortality was increased by 79% and 30-day mortality was increased by 79%, compared to those with level above that (de Haan et al, 2014)

Sleep Debt

- 14 young adult male subjects had sleep restricted to 4 hours per night for 6 nights.
- Subjects and a similar control group having 7.5 to 8.5 hours a night sleep, received an influenza immunization after day four of the trial.
- The trial group then rested in bed for 12 hours a night for 7 more days.
- Anti-influenza IgG antibodies at day 14 were only 50% in the sleep deprivation group vs the normal sleep, despite 7 days of deep recovery.

Spiegel, K. (2002). Effect of Sleep Deprivation on Response to Immunizaton. JAMA, 288(12), 1471

Prevention: Herbal medicines

During prevalence, when exposure is suspected

• Echinacea

frequent dosing

- Boneset
 effective in 1918 epidemic
- Sambucus anti-influenza specific
- Garlic
- Astragalus, Codonopsis
- Shiitake mushrooms

enhances TK cell activity

Take in soups or as tea

Cooked in foods, or mushroom extract supplements

Possible formula when exposed

When exposed

Equal parts of:

- Echinacea Echinacea angustifolia
- Boneset Eupatorium perfoliatum
- Myrrh Commiphora myrrha
- 1/2 part of Licorice Glycyrrhiza spp.
- 1/2 part of Ginger Zingiber off.

Dose: 10-20 drops, 2-3 times a day for prevention.

Deliver is teaspoon of Sambucus berry syrup

Therapeutics

Support immunity Treat fever in stages Treat dry cough.

Assess for risk of serious disease

- Elders, those with chronic medical conditions, and those on immunosuppressive drugs.
- For COVID-19, 14% of patients develop conditions requiring hospitalization; 6% more require intensive care in hospital
- Although overall mortality in healthy individuals is about 1.4% it is higher in others: patient over 80 y.o. 21.9%; with CVD 13.2%, with Diabetes, 9%, with Hypertension, 8.4%, with Chronic Respiratory Disease 8%, with Cancer, 7.6%
- Establish close monitoring for severe disease, with contingencies for hospital care.

Fever

- A beneficial rise in the body metabolism and temperature.
- The thermogenic set point is raised.
- Increased manufacture of antibodies and white blood cells -- Antibody production is increased about 20-fold.
- Retards growth and reproduction of bacteria and virus
- Aids body's acute phase reaction
- Increased circulation to surface defenses
- Increased elimination.

Recent review of pediatric fever

- "Fever . . .is not the primary illness but is a physiologic mechanism that has beneficial effects in fighting infection."
- "The primary goal of treating the febrile child should be to *improve the child's* overall comfort rather than focus on the normalization of body temperature."
- "... monitoring activity, observing for signs of serious illness, encouraging appropriate fluid intake" are appropriate measures.
- Studies of health care workers, including physicians, have revealed that most believe that the risk of heat-related adverse outcomes is increased with temperatures above 40°C (104°F), *although this belief is not justified.*"

Sullivan JE, Farrar HC. Fever and antipyretic use in children. Section on Clinical Pharmacology and Therapeutics; Committee on Drugs *Pediatrics*. 2011 Mar;127(3):580-7.

Fever is not hyperthermia

- *Hyperthermia* (heat stroke) has no elevation of set point, but is a failure of compensatory mechanisms, at temperatures from 105.8 to 107.6 damage from hyperthermia occurs
- Fever has elevated set point with compensatory cooling mechanisms.
- "For practical purposes except in rare instances, the human oral temperature cannot rise above 106 degrees" *Harrison's Internal Medicine*
- Hyperpyrexia fever above 106 degrees F. ".08% of pediatric emergency center admissions) do not require any more special evaluation by the physician than any febrile child with a temperature below 106." No more likely to indicate bacterial than viral infection.

Risks of fever

- While fever itself is not pathological, it may be the sign of infectious or non-infectious pathologies that may be serious.
- The chief concern for higher fevers is **dehydration** or **metabolic exhaustion** in elderly or debilitated patients.
- High fever in cardiac patients may destabilize arterial plaques or cause stroke in patients with cerebral arterial disease.

COVID-19

 Indications as of this week (4-5-2020) are that, while a mild fever does not discount the possibility of pneumonia and other complications, a higher fever is more likely to indicate severe disease.

Normal temperature

- The supposed average of 98.6 was based on inaccurate data. *
- Meta-analysis of measurements in healthy subject from 1935 to 1999, showed a median normal oral temperature of 97.7**
- Typical fluctuation during the day of 0.9 degrees F, from 6AM to 4PM peak.
- Average among elders is 96.8 with a reduced diurnal rise of .5 degrees**

*Mackowiak PA, Wasserman SS, Levine MM. A critical appraisal of 98.6 degrees F, the upper limit of the normal body temperature, and other legacies of Carl Reinhold August Wunderlich. *JAMA* 1992;268:1578-1580.

Fever ranges

- Range 98.9 at 6AM to 99.9 At 6PM are the upper range of normal in healthy adults under age 40.
- Lower limits should be considered in elders, for example higher than 98.0 AM to 98.5 PM may indicate a febrile response in an elder.

**Sund-Levander M, Forsberg C, Wahren LK. Normal oral, rectal, tympanic and axillary body temperature in adult men and women: a systematic literature review. *Scand J Caring Sci*. 2002 Jun;16(2):122-8. Review.

Temperature and infectious agents

- 98 99 degrees. Influenza virus dies.
- 99.5 The digestive system shuts down.
- 104 degrees. Gonococcus is killed. Polio virus replication is reduced by a factor of 250. Normal temperature may reach 104 degrees under vigorous exercise.
- 106 degrees. Pneumococcus dies. Some spirochetes die. (Malaria traditionally induced to fight syphilis)
- 106-110 malignant cells are selectively killed
- 108 brain damage may occur due to denaturation of proteins.
- 110 Human cells begin to die.

Coronavirus and body temperature

- A clinical report from Hong Kong suggested in 2003 that SARS coronavirus is sensitive to human body temperature.
- "If the body temperature is below 96.8F is grows very rapidly."
- "If the body temperature is above 98.6F the virus is attenuated or killed. Milder inflammatory response and recovery."
- "Patients with high fever can kill the virus"
- The author suggests increasing body temperature through environment or exercise may be of benefit.

Antipyretic therapy

Aspirin and NSAID may promote infection

 Animal trials: Rabbits infected with Pasteurella had a 29% mortality rate. One group had their fever lowered by 1.5 degrees with salicylates, and had 100% mortality. Salicylates alone in uninfected rabbits caused no mortality. Treated rabbits had a lower white blood cell count than their infected but untreated counterparts, and their lung and liver bacterial counts were higher.

Vaughn LK, Veale WL, Cooper KE. Effects of antipyresis on bacterial numbers in infected rabbits. *Brain Res Bull*. 1981 Aug;7(2):175-80.

Vaughn LK, Veale WL, Cooper KE. Antipyresis: its effect on mortality rate of bacterially infected rabbits. *Brain Res Bull*. 1980 Jan-Feb;5(1):69-73.

Influenza mortality increased

• Animal trials: on meta-analysis of 8 trials, the use of aspirin, acetaminophen, or diclofenac increased mortality from experimental influenza infection by 34%.

Eyers S, Weatherall M, Shirtcliffe P, Perrin K, Beasley R. The effect on mortality of antipyretics in the treatment of influenza infection: systematic review and meta-analysis. *J R Soc Med*. 2010 Oct;103(10):403-11.

Pneumonia mortality

• Animal trials: In a meta-analysis of 3 studies, antipyretic therapy in pneumonia doubled mortality rate in animals. The *Pneumococcus* bacterium is temperature sensitive.

Jefferies S, Weatherall M, Young P, Eyers S, Beasley R. Systematic review and meta-analysis of the effects of antipyretic medications on mortality in *Streptococcus pneumoniae* infections. *Postgrad Med J*. 2012 Jan;88(1035):21-7.

NSAID and interferon response

 NSAID inhibit cyclo-oxygenase, which is essential for the production of the interferon response to viral infection, the primary defense against infection.

Pottathil R, Chandrabose KA, Cuatrecasas P, Lang DJ. Establishment of the interferon-mediated antiviral state: role of fatty acid cyclooxygenase. Proc Natl Acad Sci U S A. 1980 Sep;77(9):5437-40.

Antibody response in humans

 Human trials of experimental rhinovirus infection treated with salicylates and NSAID. Lowering the fever with aspirin and acetaminophen suppressed antibody response and increased the severity of subjective symptoms. Ibuprofen had a strong similar trend (worse than placebo on every measure) but which did not reach statistical significance.

Graham NM1, Burrell CJ, Douglas RM, Debelle P, Davies L. Adverse effects of aspirin, acetaminophen, and ibuprofen on immune function, viral shedding, and clinical status in rhinovirus-infected volunteers. *J Infect Dis.* 1990 Dec;162(6):1277-82.

Duration of illness

- Patients with experimental infection with *Influenza* or *Shigella* were given aspirin or acetaminophen.
- "There was a striking correlation between antipyretic therapy and duration of illness in subjects infected with influenza A and Shigella sonnei"
- Influenza: 8.8 ± 2.3 days for drug group vs 5.3 ± 3.0 days without drug; P<.001
- Shigella: 4.6 \pm 2.1 days with antipyretics vs 1.9 \pm 1.6 days without

Plaisance KI, Kudaravalli S, Wasserman SS, Levine MM, Mackowiak PA. Effect of antipyretic therapy on the duration of illness in experimental *influenza A*, *Shigella sonnei*, and *Rickettsia rickettsii* infections. *Pharmacotherapy*. 2000 Dec;20(12):1417-22.

Coronavirus reports

- An email from a colleague. Critical care doc at Vancouver Hospital reports that patients taking ibuprofen or ACE inhibitors more likely to progress to severe disease and mortality. Whether stating this from experience or medical news reports is not clear.
- The French authorities on 3/16/20 also issued a warning against using ibuprofen or other anti-inflammatory drugs for fever (they recommended paracetamol)
- The WHO, CDC and other organizations state that "there is no data" to support that ibuprofen or other NSAID promote a worse outcome specifically in COVID infection.
- "No data" means no one has formally measured this, which is not surprising in a three month old epidemic. See previous slides showing NSAID increasing viral shedding or severity or duration of disease.

Ill effects of chronic suppression

- "Post viral syndrome"
- Collapse of vital structures
- Chronic fatigue
- "Lake Tahoe syndrome" and chronic fatigue.

Stages of Fever

- 1. Set point elevated, cold and chills predominate
- 2. Set point peak, elevated pulse and temperature
- 3. Fluctuating set-point, cycling fever, sweating, and chills
- 4. Crisis and set point drop, sweating
- 5. Recuperation

First stage: Set point rising

- Because the body temperature is now below the set point, the subjective feeling is cold. Skin cold. Symptoms resemble hypothermia.
- Normal range actual body temperature, rising
- Feeling of cold, aversion to cold and wind.
- Shivering raises the metabolism and generates heat.
- Paleness. Closing of the pores to prevent sweating and heat loss.

Therapeutics

- Complete rest.
- Immediate fast.
- Hot shower or bath.
- Rest in bed with covers.
- Hydrate. Hot drinks and teas.
- Stimulating (hot) diaphoretics.
- Capsicum 500 mg. Cinnamon 5-10g. Fresh Ginger 3-10g. Osha 3-10g Garlic, onion, scallions 3-10g.

Modified Composition Powder

- Myrica Bayberry 32 parts
- Zingiber Ginger 32 parts
- Asclepias Pleurisy root 32 parts
- Hydrastis Goldenseal 8 parts
- Capsicum Cayenne 1 part

Take as tea. 1 oz to a pint of boiling water. 2-4 ounce dose.

Support when chills are present. The original formula of Thomson contained the astringent Abies, and the very hot Eugenia. It was found to be too hot and dry for many patients, Thomson and his successors modified it. This is the formula of Wm Cook around 1869 and used frequently in Physiomedicalism after that.

British modification of Composition formula

- Myrica 4 oz.
- Cardamom 4 oz.
- Pinus can. 2 oz.
- Zingiber 2 oz.
- Dioscorea 1 oz.
- Capsicum 2 drams

Tinctures. Deliver in warm medium. Dose: 1-4 drams.

This is the formula of W. Burns Lingard of Great Britain, who had a 50 years career that spanned the 1918-1919 influenza pandemic.

Fasting and Ghrelin

- Secreted by the gut wall of the stomach, small intestine, and large intestine when empty
- Has systemic anti-inflammatory effects
- May act as selective Cox-2 inhibitor
- Has febrifuge effects
- Promotes autophagy in the system and locally in the gut
- One basis for traditional aphorisms to fast during fever, and for traditions or herbal emesis and catharsis in febrile illness.

Second Stage: Peak fever

- Normally 102-104. "A good working fever." May be 2 degrees lower in elder.
- Optimizes antibody production.
- The skin hot and dry.
- Patient may not feel hot.
- Pulse fast.
- Patient is drowsy.
- Muscles ache due to elevated cytokines. Tissue of long muscles is broken down to make amino acids available for immune component manufacture and tissue repair.
- Gut motility decreases and the natural appetite disappears.
- Blood concentrations of iron and zinc are reduced (denying food to pathogens).

Therapeutics

- Rest, well ventilated room, but no draft. Continue fast until fever falls below 99 degrees.
- Emphasize physical and mental comfort of patient.
- Avoid sour flavors and astringents.
- Melissa water.
- Tepid or cool water and drinks.
- Cooling and relaxant diaphoretics
- Mentha; Mentha/Achillea
- Eupatorium, Sambucus, Verbena.
- Sedative relaxants; Scutellaria tea, Pedicularis, Actaea

Classic flu formula from Great Britain

• Achllea	Yarrow	4 parts
• Mentha pip.	Peppermint	3 parts
 Angelica arch 	Angelica	2 parts
 Sambucus flower 	Elder	2 parts
• Eupatorium perf.	Boneset	1 part
1 oz to pint of boiling	g water. Take ½	2 cup each 3-4 hours.

This is the formula of W. Burns Lingard, medical herbalist in England, who used this during the 1918-1919 flu epidemic. Along with other treatments, he says he dispensed more than 15,000 bottles of medicine during that pandemic, and never lost a patient to flu or pneumonia.

British formula for Pneumonia

 Populus bud (Balm of Gilead) 	60 drops
 Composition tincture (see previous) 	30 drops
• Asclepias	15-30 drops
 Senega (substitute Osha) 	10-drops
• Deliver in Flu formula (see previous)	1-2 drams.

Another formula of W. Burns Lingard. He states 50 years of clinical practice without losing a patient to influenza or pneumonia, including during a robust practice during the 1918-1919 Influenza pandemic.

Third stage: Intermittent fluctuations

- Diurnal fluctuations 6AM to 6PM.
- Diurnal fluctuations with cytokine waves.
- Day to day fluctuations over time with cytokine storms.
- Alternating cycles of fever, sweating, and chills.
- May develop food cravings, often for harmful foods.

Therapeutics

- Continue strategies already in place.
- Use moderate relaxant diaphoretics in formulas with mixed stimulant and relaxant effects.
- Keep patient warm when chilled.
- Intermittent short hot showers followed by warm blankets.
- Do not get out of bed too soon.
- See Lingard flu formula, or historical formulas with mixed herbal actions in following section.

Caution on diaphoretics

- Overdose, prolonged use, or inappropriate use may deplete the vitality and promote dehydration
- Caution in depleted or already dehydrated patients.
- Avoid driving excessive perspiration
- The purpose is to encourage *ventilation* not perspiration.
- "Only until normal moisture of the skin is attained"
 - William Cook Physiomedicalist
- "Intake of these herbs should be discontinued immediately when the desire therapeutic results are attained"
 - Chen and Chen. Classical Chinese.

Fourth stage: Crisis and fall

- The set point falls.
- Drop may be abrupt, gradual, or in stages
- Feelings of heat
- Sweating may "soak the sheets."

Therapeutics

- "If it ain't broke don't fix it."
- Rest
- Hydrate
- Avoid chill
- Support elevated body temperature
- Do not get out of bed too soon

Its not over till its over

- Influenza specifically has a seven day cycle.
- The fever may pass and the condition appear to be resolved after 2-3 day.
- See previous, cytokine surges recur again on day 4-6.
- 1918 retrospective study at Johns Hopkins: "Those who went to bed the earliest, stayed the longest, and had the best nursing care were most likely to survive."
- The normal cycle is not well defined in COVID-19, but symptoms often return after appearing to be gone, and in serious cases a crisis point requiring hospitalization is often seen around day 10. Rest should continue at least 10 days from onset of symptoms.

Fifth stage: Recuperation

- Weakness, weak pulse
- Fast thready pulse
- Light headedness, dizziness
- Thirst.
- Possible alternating feelings of hot and cold.

Therapeutics

- Wait for natural hunger to return.
- Rest. Do not go back to work too soon.
- Demulcent foods and drinks. Fruit. Soups. Easily digestible stews. Seaweeds.
- Replenish omega-3 fatty acids.
- Althea water. Althea 3 with Ulmus 1 and Glycyrrhiza 1
- Asparagus (shatavari) and Lycium tea.
- Mild bitter tonics sparingly. Populus or Salix.
- This stage at least the length or double the length of the actual fever, possibly longer

Relaxant diaphoretics

- Eupatorium, warm tea
- Sambucus
- Verbena spp.
- Asclepias tuberosa
- Lobelia
- Dioscorea villosa
- Corallorhiza spp

Classical combinations

- Many traditional formulas from the Western tradition contain combinations of *Mentha*, *Achillea*, and *Sambucus flower*
 - Two mixed diaphoretics and one relaxant
- Eupatorium 2, Asclepias 4, Scutellaria 2, Zingiber 1
 Zingiber adds diffusive effect, and Scutellaria adds comfort.

General considerations

- Administer diaphoretics as hot teas.
- If using the tincture, deliver in hot water.
- Many diaphoretics have a hot/cold polarity diaphoretic when given hot in mild concentration, but alterative/diuretic when given cold in strong concentration.
- Many warming diaphoretics are also emmenagogue.
- Many warming diaphoretics are also carminative and benefit the digestion.

Eupatorium perfoliatum

- The most famous and extensively used diaphoretic/febrifuge in North American history.
- Learned from Native Americans by European Colonists
- Became the panacea herbs for febrile illness in the colonies and through the mid-19th century.
- Used for malaria, dengue fever, yellow fever, influenza, and garden-variety fevers. Improved survival in influenza epidemics.
- Clinical effects imply that it enhances immunity and reduces inflammatory cytokines.
- Consider the tea may be much more effective than tincture. (See research on polysaccharides).
- Potentially emetic.
- Very bitter flavor, combines well with Zingiber for flavor and effect.
- Contains pyrrolizidine alkaloids, in both tincture and tea. Contraindicated in pregnancy, lactation, and young children.

Combinations with Boneset

- With Scutellaria, as decoction, and something warming.
- With Asclepias. This is very relaxant, very pain relieving.
- With Zingiber
- With other relaxant diaphoretics
- For comfort with Actaea and Caulophyllum
- Lavandula
- Mentha
- Due to potential hepatotoxicity, this herb should not be taken in pregnancy, lactation, or in young children, or for more than 2 weeks in an adult.

Asclepias tuberosa

- "pure relaxant"
- Relaxes pores, allows you to "sweat for free"
- Affects mucous, serous, and synovial membranes, cooling inflammation, and facilitating normal secretions.
- Combines well with a little Zingiber

Lobelia inflata

- A non-toxic plant. See series of articles at http://medherb.com
- A powerful relaxant to both smooth and skeletal muscle
- A relaxant diaphoretic
- A strong relaxant expectorant
- Relaxes the cough reflex
- Emetic and/or cathartic in higher doses.
- Combines well with a small amount of Capsicum or a somewhat larger amount of Zingiber.

Dry Cough

- Cough may have copious mucous, stuck mucous, or dry. Distinguish between stuck and dry coughs.
- Common presenting symptom of influenza is the dry irritable cough disturbing sleep.
- The natural host cell of the influenza virus is the epithelial cell in the bronchial tract and trachea. The infected cells are inflamed by the body's attempt to remove them, and mucous secretions may be deficient.
- Many herbal *stimulant expectorants* that are useful in moist coughs with accumulated or stuck mucous work by irritating the tissues slightly to produce new mucous.
- These usually are aggravating in a true dry inflamed cough
- The two categories most useful for the acute dry irritable cough are *relaxant expectorants* and *demulcents*.

Relaxant expectorants

- Tussilago farfara. Mixed relaxant and expectorant properties
- Lobelia inflata. Non-toxic, use lower doses.
- Asclepias tuberosa. Benefits mucous and serous membranes
- Usnea species. Water extract
- Sticta pulmonaria. Lungwort
- Thymus vulgaris. Mixed relaxation and stimulation, antispasmodic

Demulcents for cough

- *Althaea off, rosea*. Pure relaxant and demulcent. As effective as hydrocodone in one trial.
- Tussilago farfara. As above.
- Ulmus fulva, and other Ulmus species.
- *Glycyrrhiza*. Effective demulcent and moistener can counteract irritating effects of the milder stimulant expectorants in formulas. Taken in excess as tea or powder, may increase force of a cough through tonifying effects.

Media: Honey and sugar

- William Cook, M.D: Demulcent, and at the same time moderately stimulant to the respiratory mucous membranes.
- These are common components of cough syrups, and because of their gentle expectorant action, many cough preparations can be given in syrup form
- A hydromel is a simple combination of honey and water, such as would be used to ferment mead.

Vinegar, Lemon, Lime

- William Cook, M.D. Promotes the secretions of the throat and respiratory tract membranes
- Cook states that the action of vinegar tinctures are mostly restricted to the respiratory passages and stomach.
- An oxymel is a combination of vinegar and honey.

Recipe: Basic onion syrup

- Chop 5 or 6 white onions and place them in a double boiler.
- Add ½ cup of honey and the juice of 1 lemon and cook on lowest heat possible for several hours.
- Strain the mixture and take by the tablespoon from every ½ hour to every few hours as needed.
- May be used as delivery medium for tinctures.

Stimulating expectorants

- Avoid as simples in cough of influenza. May be used as smaller part of a net demulcent, relaxant formula
- Garlic
- Aralia racemosa
- Inula helenium
- Marrubium vulgare
- Grindelia spp
- Ligusticum spp.

Verbascum

- Leaf has complex effects
- Can be stimulating and irritating especially to dry cough
- Also has relaxant effects
- Frequently listed as demulcent in books, but this probably refers to flowers.
- Flowers are demulcent and relaxant, cooling, anti-inflammatory

Simple Dry cough formula

- Althaea hydromel, add strong honey to Althaea tea.
- Add 10 drops of lobelia tincture per 6 ounce cup of tea.
- Dose per 2 hours. Sip as needed.

Dry cough syrup

- Simmer 4 oz fresh Zingiber (ginger) root and 2 oz Glycyrrhiza (licorice) in 4 pints of water over low heat until the mixture has been reduced to 3 pints.
- Strain and add 3 cups of honey and the juice of one lemon.
- Add 1 cup each of Lobelia vinegar and Asclepias tincture
- Skim any froth that forms
- Add 1 dram each of essential oils of thyme and anise.
- Adults one Tbls, children 1 tsp, 5-6 times per day

Jillian Stansbury ND

Tea based oxymel

- Place one ounce of an herb in one quart of water.
- Reduce to a pint and a half.
- Strain.
- Add 4 ounces of vinegar and 4 ounces of honey.

Tincture based oxymel

- 1 pint of apple cider vinegar
- 2 1/4 lbs of honey
- Combine in a pot and simmer to the consistency of syrup.

Keep as pre-mixed medium for cough tinctures.

Tinctures can be delivered in a ratio of one part of tincture to 3 parts of oxymel.

Copyright Paul Bergner, 2015, 2020 All rights Reserved.

North American Institute of Medical Herbalism Portland, OR

Updated April 6, 2020

You can find supplemental materials and resources relating to the COVID-19 epidemic at the North American Institute of Medical Herbalism http://naimh.com/coronavirus

Favorable SB -322 - Feb 9 2021 - Dr. Seem & Dr. Ka

Uploaded by: Saint-George, Jo Position: FAV



15215 Shady Grove Rd, Suite 304 | Rockville, MD 20850 | (301) 284-8990 | (301) 569-4293 FAX http://www.myfamilymeddocs.com

Τo,

February 11, 2021

Senator Dolores G. Kelley, Chair

Senator Brian J. Feldman, Vice Chair

Senate Finance Committee

3 East Miller Senate Office Building 11 Bladen Street Annapolis, MD 21401

Subject: FAVORABLE SB - 322 - Health Standards, Plant-Based Meals in Prisons and Hospitals

Dear Chair, Vice Chair, and committee: Our names are Dr Rohit Seem and Dr Manisha Kalra and we are here on behalf of Family Medicine Shady Grove LLC, Rockville, Maryland.

We both are board-certified family physicians practicing with great emphasis on nutrition and its role in disease prevention and reversal. We both have a background in preventative medicine, and we spend most of our time as primary care physicians on counseling patients on how to reduce their risk of heart disease, type 2 diabetes, common cancers, and many other chronic diseases brought on by poor dietary choices. It does not help that they are often surrounded by unhealthful food options. If Maryland can positively affect the food environment for vulnerable populations like patients and prisoners, it is a moral imperative that they do so.

Senate Bill 768 is a simple yet important measure that will lead to improved health outcomes for those in the State's care and provide both short-term and long-term cost-savings. This bill will require that hospitals and prisons make available plant-based meals for patients and prisoners.

Plant-based eating can reverse or help to manage many chronic diseases. A plant-based diet can reverse coronary disease, lower blood pressure, lower cancer rates and treat or reverse diabetes through improved glucose control. Studies of patients with even the most severe of heart disease have demonstrated reversal of their coronary artery blockages. In June 2017, the American Medical Association passed a resolution that calls on U.S. hospitals to improve the health of patients, staff, and visitors by providing plant-based meals. The American College of Cardiology made similar recommendations in Planting a Seed: Heart-Healthy Food Recommendations for Hospitals. The ACC says that "hospitalization can be a 'teachable moment' for patients who are ready to embrace nutrition as part of the healing process." In 2018, California's legislature passed a law requiring plant-based meals be available in hospitals and prisons. A similar law just became law in New York state, and the DC Council is also moving forward with such legislation.

A great deal of emphasis is given on treating diseases contributing greatly to the health care cost whereas, simple preventative measures can have profound results. Plant-based diets reduce risks of many chronic illnesses (along with acute flare ups), which in turn reduces the cost of hospitalizations, diagnostic testing and medications for treating illnesses.

Giving patients and prisoners in Maryland the ability to choose healthier meals benefits everyone. We urge your support of SB 768 and we are happy to answer any questions.

Sincerely,

Pohil Del

Rohit Seem MD, FAAFP

Manisha Kalia w

Manisha Kalra MD, FAAFP

Favorable-SB-322-MPAC 2-11-2021.pdf Uploaded by: Saint-George, Jo

Position: FAV



SB-322 Health and Wellness Standards - Correctional Facilities and Health Care Facilities February 11, 2021

Dear Chair, Vice Chair and Committee:

On behalf of the Maryland Plant-Based Advocates Coalition (MPAC) we submit this letter of support of SB-322. The Maryland Plant-Based Advocates Coalition is made up of the above listed organizations which includes, plant-based restaurant owners, plant-based trade associations, plant-based education and training organization, community criminal justice and health reform organizations in Maryland. Our mission is to advocate for: 1) the increase of whole plant-based food nutrition education in K-12, universities and community organizations, 2.) greater access to healthy whole plant-based foods, particularly in Maryland's food deserts and communities that suffer disproportionately from chronic degenerative diseases, 3) industry protections for plant-based food manufacturers, retailers, and educators.

In a recent Sept. 16, 2020 Gallup poll of U.S. adults, it was reported that one in four Americans (23%) report eating less meat in the past year (2019) than they had previously. The biggest factor in reducing meat consumption is health concerns -- nine in 10 say it is a major (70%) factor. After health, environmental concerns are the next most prominent factor leading to reduced meat consumption -- seven in 10 say concerns about the environment are behind their avoidance of meat (49% say it is a major reason, and 21% a minor one). The report also indicated that the momentum behind plant-based meat options may reflect that reduction in meat intake -- and possibly even accelerate it.¹

¹ Jan 28, 2020 Gallup Poll - <u>https://news.gallup.com/poll/282779/nearly-one-four-cut-back-eating-meat.aspx</u>

The Gallop poll also reported that African American made the greatest reduction in meat (31%) and white (19%). Recent SPINS data commissioned by The Good Food Institute showed that U.S. retail sales of plantbased foods that directly replace animal products have grown 31% over the two-year period to reach nearly \$4.5 billion as of July 2019.²

As of January 30, 2019, there are over nine (9) 100% plant-based restaurants in Baltimore City, all owned by African Americans. Baltimore was rated one of the top vegan friendly cities in the country. It is due to these trends in consumer eating habits, that there has been a tremendous growth of plant-based restaurants in Baltimore.

While these measurable shifts in eating habits are promising for improving the health of Maryland residents, Maryland inmates and vulnerable patients in hospitals should be guaranteed access to whole plant-based meals. With 70% of Maryland's inmate population are African Americans and African Americans in Maryland suffer disproportionately from degenerative diseases like heart disease and diabetes related complications, SB-768/HB819 is disparately needed for these vulnerable residents.

MPAC supports SB-322 because of its strong mandate for providing access to plant-based foods to inmates and patients. By directing the Secretary of Health to establish minimum standards for the healthfulness of foods served in Maryland's correctional and healthcare facilities, this bill provides an opportunity to ensure that meals meet evidence-based criteria to support health, rather than undermine it.

Also, the bills education and training component is another aspect of the bill that MPAC supports, as it addresses the need for medical providers who are up to date with the food trends in the market so health care delivery is not only cost effective but yields outcomes that can lead to reduction of chronic degenerative diseases within Maryland minority communities.

Passing this bill represents a key step toward supporting the health of Maryland's inmates and patients through whole plant-based food.

Sincerely,

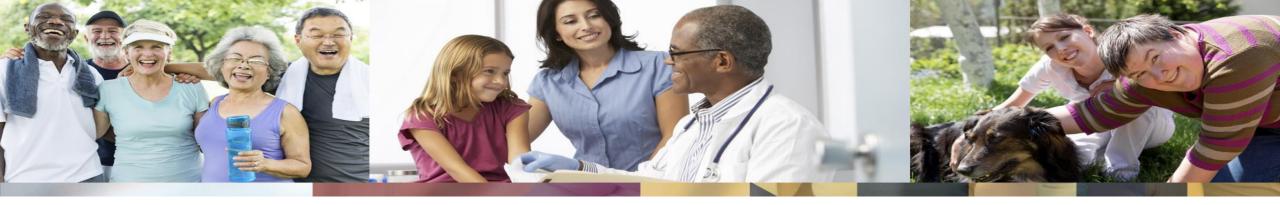
Coalition Representative Director Legislative Affairs Jo Saint-George

² Forbes – Jan. 19, 2020 - <u>https://www.forbes.com/sites/douglasyu/2020/01/19/plant-based-foods-are-hot-now-</u>

they-just-got-hotter/#7e32eed5214c

MD Office of Minority Health & Health Disparities Uploaded by: Saint-George, Jo

Position: FAV





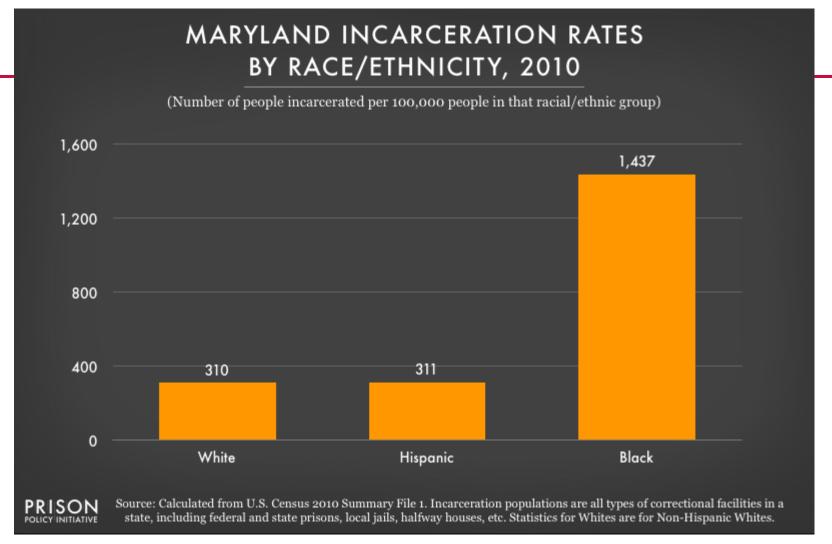
Understanding the Health Disparity Issues Faced By the Incarcerated Population

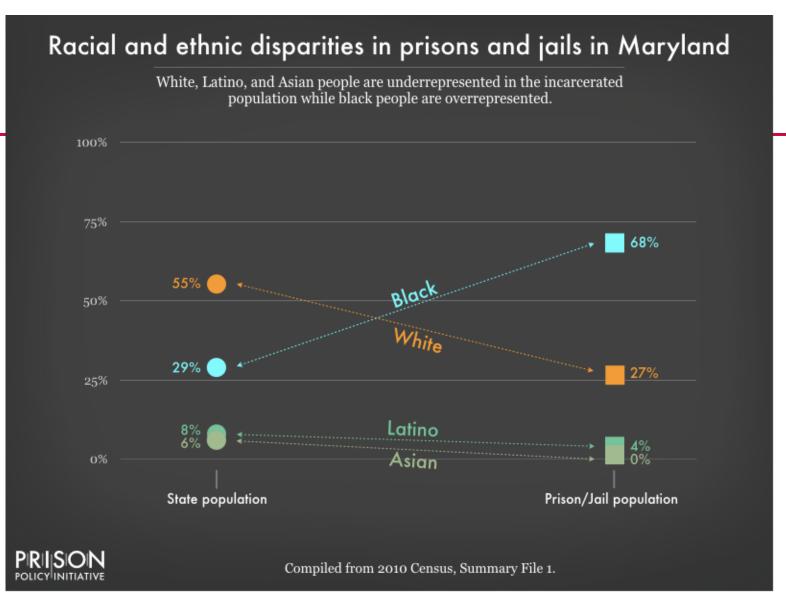
Noel Brathwaite, PhD, MSPH, Director Minority Health and Health Disparities

October 23, 2019



People of color are overrepresented in prisons and jail





https://www.prisonpolicy.org/profiles/MD.htm

The Link

- SEVERAL REPORTS HAVE EXAMINED THE LINKS BETWEEN MASS INCARCERATION AND HEALTH EQUITY; AND HOW MASS INCARCERATION NEGATIVELY IMPACTS EVERYONE'S HEALTH AND WELL-BEING.
- MASS INCARCERATION'S EFFECTS ON HEALTH LAST FAR BEYOND THE PERIOD OF IMPRISONMENT. IT IMPACTS SOCIAL, EDUCATIONAL, AND ECONOMIC OPPORTUNITIES; INCREASES THE PREVALENCE OF CHRONIC HEALTH CONDITIONS; AND DECREASES LIFE EXPECTANCY, WITH A 2015 STUDY SUGGESTING THAT EACH YEAR SPENT IN PRISON CORRESPONDS WITH A TWO-YEAR REDUCTION IN LIFE EXPECTANCY.

USA Evidence: Disproportionality

Compared with the general population, incarcerated individuals have a higher burden of mental and neurological disorders, have high levels of stress, anxiety, sleep deprivation, and depression and have lower levels of self-efficacy as a result of the stigma and loss of social ties associated with being incarcerated [5–9]. Rates of many chronic diseases show statistically significant differences between the two populations; there are more than double of those in the general population; examples include diabetes (5.0% vs. 2.4%), chronic respiratory conditions (e.g., chronic obstructive pulmonary disease (COPD), 34.1% vs. 19.2%), and liver disease (10.0% vs. 0.6%) [1].

Additional Evidence: Poor health status

Epidemiologic studies have confirmed that jail and prison inmates have a higher burden of chronic diseases such as hypertension, asthma, and cervical cancer than the general population, even after adjustment for known confounders such as age.^{6–12} Furthermore, inmates are particularly at risk for substance use disorders, psychiatric disorders, victimization, and infectious diseases, including hepatitis C, HIV, and tuberculosis.^{8,9,13–21}

Despite the prevalence of poor health status among both minorities and inmates, the effect of criminal justice involvement on population health disparities has been largely overlooked in research on population health disparities.

Individuals enter correctional facilities with many health problems; and incarceration has an impact on their health

Disproportionality (Cont'd)

Similarly, rates of communicable diseases such as Hepatitis C, Human Immunodeficiency Virus (HIV), and tuberculosis [10] are higher in incarcerated populations (e.g., 3.5% vs. 0.4% for HIV among 25– 34 year olds) [11]. Women [12], ethnic minorities [13], and older adults [14] are considered particularly at-risk for poor health outcomes. Further, people who do not have a permanent residence in between jail stays face greater risk of mortality due to treatable conditions [15].

A Survey of Health Disparities, Social Determinants of Health, and Converging Morbidities in a County Jail: A Cultural-Ecological Assessment of Health Conditions in Jail Populations. International Journal of Environmental Research and Public Health Article, Received: 20 September 2018; Accepted: 2 November 2018; Published: 8 November 2018 By federal regulation, Medicaid benefits, which provide insurance for a disproportionate number of inmates prior to their incarceration, are suspended or even eliminated upon incarceration [22,23]; this creates a barrier to continuity of care for many chronic conditions, treatment regimens for severe mental impairments (SMI), and other behavioral health problems, because of benefits being temporarily or permanently terminated, as well as marked differences in the formularies offered by the jail as opposed to those offered by Medicaid benefits.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6231773/

Intervention Rationale

Understanding and addressing the health of individuals involved in the criminal justice system is one component of a comprehensive strategy to reduce population health disparities and improve the health of our urban communities.

Our findings will help identify intervention points throughout the criminal justice and health care systems to improve health and reduce health disparities among jail inmates.

Timely Snapshot of Maryland's prison population

States with largest percent decrease in prison population from 2016-2017; MD leads -9.6% since 2016-22.9% since 2007 Maryland (Fallen below 18, 000 for the first time in nearly three decades; drops to 1980s levels; 17,815 in state prisons) Connecticut -7.5% since 2016-33.9% since 2007 Rhode -7.5% since 2016-28.5% since 2007 Island Louisiana -5.4% since 2016-10.1% since 2007 Illinois -5.1% since 2016-8.4% since 2007

Endnote

i. Incarcerated populations: State and federal prisons house inmates sentenced to more than 1 year of incarceration.² Local jails hold inmates sentenced to less than 1 year (average is 8-10 days); people who violate parole or probation; and those awaiting trial, sentencing, or transfer to prison.²

https://www.healthypeople.gov/2020/topics-objectives/topic/socialdeterminants-health/interventions-resources/incarceration

ii. Incarceration is a key issue in the Social and Community Context domain of the SDOH

The Healthy People 2020 <u>Social Determinants of Health topic area</u> is organized into 5 place-based domains:

Economic Stability

Education

Health and Health Care

Neighborhood and Built Environment

Social and Community Context

PBFA MD SB 322 support ltr final.pdf Uploaded by: Saint-George, Jo

Position: FAV



415-236-5048 • PlantBasedFoods.org 4 Embarcadero Center, Suite 1400, San Francisco CA 94111

February 8, 2021

To: Members of the Maryland General Assembly

RE: Support for SB 322 and HB 1071

The Plant Based Foods Association is in support of SB 322 and HB 1071.

PBFA was founded in 2016 to represent the interests of companies producing plantbased alternatives to conventional animal products. Today the association has grown to more than 180 member companies, ranging from small start-up food companies to established brands to ingredient suppliers.

PBFA supports the goals of this legislation because we believe it is important to offer plant-based options to anyone who wants them. Plant based foods are increasingly in demand for health, environmental, and other reasons and we support those choices being available to those in public institutions, including those in hospitals and those incarcerated.

If have any questions regarding our support, please contact Michael Robbins at (202)549-4121.

SB -322 -Prison Health Care Bill Summary +Supporte Uploaded by: Saint-George, Jo

2021 Maryland Plant-Based Meal Bill SB-322 Supporters















Uniting the voices of Maryland's Plant-based food lovers for healthy & sustainable living + Food Justice & Equity for those who lack Access To Healthy Plant-Based food



Physicians for Responsible Medicine





AMERICAN COLLEGE OF

Lifestyle Medicine















Individuals

Dr. Milton Mills, MD Dr. Amara Nwanpah, MD Dr. Theodore Watkins, MD Dr. Columbus Baptiste, MD



Maryland **Restorative Justice** Initiative







A large body of peer-re- viewed research shows that the illnesses responsible for many hospital visits often can be prevented, treated, and even re- versed with plant-based diets, which are low in saturated fat and cholesterol yet high in fiber, nutrients, and vitamins.

Healthier Hospitals

A PRACTICE GREENHEALTH PROGRAM

Of the approx. **35** hospital organizations in Maryland that are members of the Healthier Hospitals program, only **6** have voluntarily committed to the "Healthy Food" challenge initiated 8 years ago in 2012. The challenge calls for less meat on in-patient meals.

See the participating hospitals http://www.healthierhospitals. org/about-hhi/participatinghospitals

Bill to Ensure Plant-Based Meals for Patients In Hospitals & Inmates in Maryland Prisons, Along with Plant-based Nutrition Training

The 2021 New Health Standards for Prisons and Hospitals that calls for Plant-based Meals - introduced by Del. Terri Hill, MD in 2020 as HB-819/<u>SB 768</u> and re-introduced by Sen. Joanna Benson 2021 at SB 322 will require:

- Hospitals to make plant-based meals available to all patients and all plant-based meals reflected on all in-patient menus
- Maryland prisons to provide plant-based meals at least one time per week, like a "Meatless Monday"
- Maryland prisons to provide 100% plantbased meals upon request by inmates who want plant-based meals served at all times, without the need for a doctors note or religious accommodation.
- Maryland Department of Health & Minority Health – Health Disparities to provide all healthcare providers with information on how to be trained in plantbased nutrition, plant-based prescriptions and "Lifestyle Medicine" which treats the whole person to reduce reliance on costly prescription drugs in order to reduce health care cost
- Requires Corizon Health, the third-party health care provided to all Maryland state prisons, to annually:
 - Report to MDHMHHD & the General Assembly the health status of all inmates individually & in the aggregate with changes in health;
 - Report on the training the Corizon lifestyle medicine training received

What this Bill Does

This bill is a simple yet science-based measure that will lead to improved health outcomes for patients in a hospital setting and inmates in prison while also providing substantial savings to the state in direct medical costs and indirect costs related to reduced work loss, disability, and premature death of state employees who receive hospital care. The bill also provides Corizon Health with new evidenced based 21st Century health care delivery tools (defined as "Lifestyle Medicine") that will ensure that the health outcomes of prison inmates is not worse than when they entered Maryland prisons, while also providing measures for accountability and transparency for those outcomes, which over time can result in lower cost to taxpayers for inmate health. The Maryland Plant-based Meal Bill is a win/win for patients, healthcare providers and taxpayers. (*See the backside to learn more*.)

For more info. Email: Jo@HealthyLawyers.org or call (602)326-8663

Heart Disease

PLANT,

ADVOCATES COALITION

#1 Cause of Death in Maryland

(MD Department of Health Oct 2017)

"In addition to providing evidence on the effectiveness and dramatic impact on heart disease, research continues to show that a plantbased diet reduces the risk of many forms of cancer, osteoporosis, chronic kidney disease, many digestive diseases including IBS as well as autoimmune diseases." from the Montefiore Medical Center website https://www.montefiore.org

Why MD Prisons?



- Approx. \$136,000 million per year in tax-payer dollars is spent on inmate healthcare (Corizon Health has a \$680 million contract for 5 yrs)
- Approx. 105,000 prescriptions per month are written for inmate illness - \$70M per yr
- Approx. 35% of inmate healthcare cost is on chronic degenerative diseases
- Maryland inmates suffer from health disparities at a greater rate than the Maryland general population
- Foodborne illness is 1 of the top inmate illnesses in Maryland Prisons

A Reversible Problem!

Maryland's diabetes epidemic: Approximately 623,041 people in Maryland, or 12.6% of the adult population, have diabetes. Of these, an estimated 156,000 have diabetes but don't know it, greatly increasing their health risk. In addition, 1,634,000 people in Maryland, 36.9% of the adult population, have prediabetes with blood glucose levels higher than normal but not yet high enough to be diagnosed as diabetes. This is true also for the inmate population.

\$6.5 billion in Maryland

Diabetes and prediabetes cost an estimated \$6.5 billion each year.



Studies have shown that a plant-based diet can greatly improve the body's ability to regulate glucose levels, which lowers or eliminates the need for insulin.7 If patients and inmates have access to healthy plant-based meals, hospitals and Maryland prisons can decrease the risk of Type 2 diabetes or help them reverse the disease if they already have it.

Support for Plant-Based Hospital Meals

In June 2017, the American Medical Association passed the Healthy Food Options in Hospitals resolution, which "... calls on US hospitals to improve the health of patients, staff, and visitors by: (a) providing a variety of healthy food, including plant-based meals, and meals that are low in fat, sodium, and added sugars..."8

The American College of Cardiology a similar made recommendation in Planting a Seed: Heart-Healthy Food Recommendations for Hospitals: "A least one plant-based main dish that is low in fat, sodium, and added sugars will be offered and promoted at every meal..."9

St. Joseph Health System in Sonoma County, California, reports, "Vegetarian entrées cost about 50 percent less than meat entrées." The hospital projects saving \$5,000 a year by serving more meat-free meals.10

Endnotes

 National Kidney Foundation, https://www.kidney.org/atoz/content/plant-based 4. American Diabetes Association, http://main.diabetes.org/dorg/PDFs/Advocacy/burden-of-diabetes/new-

york.pdf

8. Food Forward, "Moving Food Forward: A Win-Win Proposition," https://forwardfood.org/s/ UniversityFoodserviceProfessionals.pdf



Corizon Prison Health Care Track Record

1,364 lawsuits against Corizon between 2009 & 2018 regarding poor inmate health care – See letter from Corizon CEO http://www.corizonhealth.com/Corizon-

News/a-letter-to-d.c.-council-chairmanphil-mendelson

- Corizon lost its contract with state of Arizona due to multi-million dollar poor health care lawsuit in 2014
- Around May 2019 200 letters by Arizona female inmates siting instances where women were miscarrying due to a lack of proper health care. https://www.themarshallproject.org/reco rds/131-corizon

Legislation In Other States

Other states have passed similar bills:

CA - SB 1138 for prisons + hospitals NY - S1471A/A4072 for hospitals OR - HB 3342 for hospitals

Other prisons have gone plant-based:

AZ – Maricopa County 100% plant-based NY - Ricker's Prison

PA – Philadelphia 2018 pilot program

Prison Report

A report on global prison populations, indicates that a plant-based diet has the effect of: (1) cheaper prison administration (plant-based diets are significantly cheaper than MDE-based diets [*MDE =meat/dairy* /egg]); (2) better prisoner life expectancy (vegans live longer; and a core prison performance metric is average life expectancy of prison populations); (3) higher likelihood of rehabilitative/restorative outcomes in prison populations (higher levels of socialization); (4) lower medical **costs** (vegans lead healthier lives)

^{1.} American Heart Association, https://www.heart.org/en/healthy-living/healthy-eating/eatsmart/fats/saturated-fats

^{2.} World Cancer Research Fund and American Institute for Cancer Research, "Diet, Nutrition, Physical Activity and

Cancer: a Global Perspective," 2018, https://www.wcrf.org/sites/default/files/Summary-third-expertreport.pdf

^{5.} McMacken Michelle and Sapana Shah, "A plant-based diet for the prevention and treatment of type 2 diabetes," Journal of Geriatric Cardiology, 2017 May, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5466941/
6. American Medical Association, "Healthy Food Options in Hospitals," policy H-150.949.
7. American College of Cardiology, "Planting a Seed: Heart-Healthy Food Recommendations for Hospitals," https://www.accommender.in/sapace.accommendations.for Hospitals,"

https:// www.acc.org/membership/sections-and-councils/prevention-of-cardiovascular-diseasesection/about-us/section- sub-groups/features/hospital-food-program



Plant-Based Meal Bill Can Help with Covid Infection Treatment



Plant-based health expert Dr T. Colin Campbell author of the "China Study" has said switching to a whole food plant-based diet could "produce a faster, safer, more comprehensive long-term solution for coping with viral diseases like COVID-19". Dr Campbell referenced research he had previously done as part of the China Project.

"We collected data on the prevalence of people having antibodies and antigens, multiple disease mortality rates, and many nutritional risk factors," the plant-based advocate wrote. "Relying only on statistically significant findings, HBV antibody prevalence was highly correlated with vegetable consumption, dietary fiber, and plant protein. In short, more plant food consumption was associated with more antibodies."

"In our research, we also found that people consuming more animal protein had fewer antibodies, even in those consuming a very low amount of animal protein," he added. <u>Complete Story in Body & Soul Journal</u>

Journal Articles on data on Plant-based Nutation

https://www.medrxiv.org/content/10.1101/2021.01.06.21249354v1

https://www.eurekalert.org/pub_releases/2021-01/wom-rsp012521.php

See attached – Non-pharmacological protocol for Covid – 19 treatment before and after exposure.

Favorable SB 322-PCRM Testimony - Dr. Jasmol Sarda Uploaded by: Sardona, MD , Jasmol

PhysiciansCommittee

5100 Wisconsin Ave. NW, Suite 400 • Washington, DC 20016 • Tel: 202-686-2210 • Fax: 202-686-2216 • pcrm@pcrm.org

PCRM ORG

February 11, 2021

Senator Dolores G. Kelley, Chair Senator Brian J. Feldman, Vice Chair Senate Finance Committee 3 East Miller Senate Office Building 11 Bladen Street Annapolis, MD 21401

Subject: FAVORABLE SB - 322 – Health Standards, Plant-Based Meals in Prisons and Hospitals

Dear Chair, Vice Chair and committee:

My name is Dr. Jasmol Sardana, and I am here on behalf of the Physicians Committee for Responsible Medicine and the Barnard Medical Center located near Chevy Chase, Maryland. I also reside in Howard County. I am a board-certified primary care physician specializing in internal medicine and lifestyle medicine.

Senate Bill 768 is a simple yet important measure that will lead to improved health outcomes for those in the State's care, and also provide both short-term and long-term cost-savings. This bill will require that hospitals and prisons make available plant-based meals for patients and prisoners.

I spend much of my time as a physician on counseling Marylanders how to reduce their risk of heart disease, type 2 diabetes, and many chronic diseases brought on by poor dietary behavior. It does not help that they are often surrounded by unhealthful food options. If Maryland can positively affect the food environment for vulnerable populations like patients and prisoners, it is a moral imperative that they do so.

In Maryland more than 30% of the adult population is clinically obese.¹ The rate of diabetes in Maryland is now well over 12% and rises every year. Medicaid costs more than double for a patient with diabetes, a disease which costs the state more than \$6 billion per year.² The cost of poor dietary behavior goes well beyond diabetes alone.

Plant-based diets are strongly associated with improved health. They reduce the risk of heart attack, stroke, high blood pressure, kidney disease, diabetes, obesity, and several types of cancers, including colon, prostate, and esophageal cancer.

Plant-based eating can reverse or help to manage many chronic diseases. A plantbased diet can reverse coronary disease, lower blood pressure, and treat or reverse diabetes through improved glucose control. Studies of patients with even the most severe of heart disease have demonstrated reversal of their coronary blockages.

In June 2017, the American Medical Association passed a resolution that calls on U.S. hospitals to improve the health of patients, staff, and visitors by providing plant-based meals. The American College of Cardiology made similar recommendations in Planting a Seed: Heart-Healthy Food Recommendations for Hospitals. The ACC says that "hospitalization can be a 'teachable moment' for patients who are ready to embrace nutrition as part of the healing process."

In 2018, California's legislature passed a law requiring plant-based meals be available in hospitals and prisons. A similar law just became law in New York state, and the DC Council is also moving forward with such legislation.

The bottom line is that when people eat healthier, they are healthier. They suffer less and live longer. Plant-based diets reduce risks of diet related disease, which in turn reduces the cost of hospitalizations and medications for treating illness. Giving patients and prisoners in Maryland the ability to choose healthier meals benefits everyone.

I urge your support of SB 768 and I'm happy to answer any questions.

Sincerely,

Jasmol Sardana, DO

¹ America's Health Rankings, https://www.americashealthrankings.org/explore/annual/measure/Diabetes/state/MD

² American Diabetes Association, <u>http://main.diabetes.org/dorg/PDFs/Advocacy/burden-of-diabetes/maryland.pdf</u>

Testimony-SB322-Health and Wellness Standards - Co Uploaded by: Stevenson, Christopher



Testimony on SB322 Health and Wellness Standards - Correctional Facilities and Health Care Facilities Position: FAVORABLE

Dear Madam Chair and Members of the Finance Committee:

1199SEIU Healthcare Workers East (1199SEIU) is the largest healthcare union in the country with, with over 450,000 members throughout Massachusetts, New York, New Jersey, Maryland, Florida and Washington, D.C. We fully support this ground breaking bill that contains a component, which, if passed, could result in our Maryland healthcare workers obtaining training in Lifestyle Medicine and plant-based nutrition as well as providing inmates and patients in hospitals the right to request plant based meals.

It is no secret that the U.S. spends at least 18% of its GDP (\$3.35 trillion) on health expenditures. If costs continue to rise, by 2050 Medicare and Medicaid alone will account for 20% of the GDP. It is also a well-known fact that 80% or more of all healthcare spending in the U.S. is tied to the treatment of conditions rooted in poor lifestyle choices. Chronic diseases and conditions—such as hypertension, heart disease, stroke, type 2 diabetes, obesity, osteoporosis, multiple types of cancer—are among the most common, costly, and preventable of all health conditions.

What is most alarming, however, is that most physicians and healthcare works in our union do not receive adequate training in the basics of Lifestyle Medicine—nutrition and physical activity—yet we know that 85 percent of chronic disease today is caused by unhealthy lifestyle choices in these and other areas.

Furthermore, it is our union healthcare workers who are responsible either with delivering and/or assisting patients in hospitals with consuming their meals when admitted. Our workers, in many instances, want to provide or help patients to eat better food when they are admitted into the hospital, but most meal menus in hospitals do not have whole plant-based meal options. Therefore, patients who may want to choose to eat plant-based foods with high in fiber and complex carbohydrates do not have an option on the hospital menu to select a plant-based meal. Also, our community health workers would be empowered with new tools and approaches to assist patients released from the hospital with maintaining better lifestyle habits that will improve the patient outcomes.

Finally, we also strongly support the ability for inmates to choose to improve their health through the consumption of whole plant-based meals in prison. Consequently, 1199SEIU strongly supports SB-322 as a bill that will help revolutionize health care delivery and health outcomes through access to whole plant-based foods for patients and inmates and through the bills education and training component as it addresses the need for medical physicians and healthcare staff to be up to date with the food trends in the market so health care delivery is not only cost effective but yields outcomes that can lead to reduction of chronic degenerative diseases within Maryland, particularly in minority communities.

We, therefore, urge members of Maryland's General Assembly to pass SB-322.

Respectfully,

Ricarra Jones Maryland/DC Political Director 1199SEIU United Healthcare Workers- East Cell: <u>443-844-6513</u>

FriendsoftheEarth_ChloeWaterman_FAV_SB0322.pdf Uploaded by: Waterman, Chloe



Feb 11, 2020 Testimony in <u>SUPPORT of SB 322</u> – Plant-based Options in Hospitals and Prisons Before the Senate Finance Committee

Chair Kelly, Vice Chair Feldman, and Members of the Committee:

On behalf of Friends of the Earth U.S. and our more than 24,000 members and supporters in Maryland, thank you for the opportunity to express our support for SB 322 to require that plant-based food options be made available at licensed healthcare facilities and establish a pilot program to expand plant-forward menus in state correctional facilities. The bill requires that plant-based options be made available to all patients in hospitals and residential treatment centers. It also establishes a two-year pilot program in four state correctional facilities whereby a) people who are incarcerated can elect to have all plant-based meals, b) people who are incarcerated will all receive at least one plant-based meal per week, c) correctional facility healthcare providers will be provided with information about plant-based nutrition, and d) the Secretary of Public Safety and Correctional Services will report on outcomes from the pilot program.

Healthcare patients and people who are incarcerated should have access to healthy foods that meet their religious, ethical, personal, and dietary needs. Plant-based foods are increasingly in demand for health, environmental, and animal welfare reasons. Research suggests that 36 percent of U.S. consumers prefer milk and meat alternatives and that between 26 and 41 percent of Americans have eaten less meat over the past year. A study by the Hartman Group and Changing Tastes (2015) revealed that "food culture and eating norms are changing as dramatically and rapidly as the environmental and public health imperatives that are reshaping the nature of the food service industry" and that "today's diners prefer meals that are healthier for the environment." Hospitals serve some of our most vulnerable populations, and it is imperative to ensure they have the basic right to food that meets their needs, including a plant-based option.

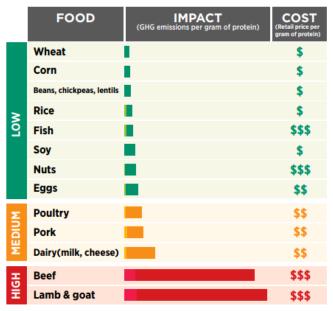
Eating more plant-based foods is essential to meeting climate goals. In order for Maryland to meet its climate goals, it must reduce the emissions associated with food production—especially animal products, which emit significantly higher emissions than plant-based alternatives. Globally, the livestock sector accounts for more GHGs than the entire transportation sector. The United Nations Intergovernmental Panel on Climate Change (IPCC) found that reducing consumption of animal products is one of the highest-impact strategies for mitigating agriculture's effects on the climate and other aspects of our environment. One of the most direct and cost-effective ways that Maryland can encourage reduced consumption of meat and dairy is by requiring plant-based options to be available at institutions over which it has jurisdiction, including licensed hospitals and correctional facilities.

A diet rich in plant-based foods is better for our health and can reduce Maryland's health care costs. An analysis of two weeks of menus provided by DPSCS showed that people incarcerated are being given twice as much meat, poultry, and eggs as the maximum recommended by the *Dietary Guidelines for Americans* (DGAs) for a 2,000 calorie diet. This legislation calls for one meal a week to be plant-based for all people incarcerated, which will bring DPSCS closer to compliance with the dietary guidelines. The DGAs identify low-meat, Mediterranean style and no-meat, vegetarian diets as viable options for a healthy nutritious diet.

The American Cancer Society has long recommended "a diet that limits processed meat and red meat, and that is high in vegetables, fruits, and whole grains."

Ample scientific evidence shows that high consumption of red and processed meats, in particular, is associated with increased risks of heart disease, diabetes and some cancers, while plant-based diets can help decrease the risks of all three. In 2015, the World Health Organization's International Agency for Research on Cancer (IARC) classified processed meat as a known human carcinogen and red meat, including beef and lamb, as a probable human carcinogen. In addition to saving lives, increasing opportunities to consume more plant-based foods can save Maryland millions of dollars in health care costs each year.

Providing plant-based options can save money that can be used to purchase more sustainable food that is locally or regionally produced, organic, or third-party-certified grass-fed, fair trade, or humane. As depicted in the chart on the right, plant-based foods are generally less expensive than meat and dairy. This holds true for DPSCS which reported that an average meatbased dinner costs \$1.66 compared to \$1.30 for a vegetarian meal. Even public institutions on a tight budget can realize cost savings from a shift towards more plant-based foods. For example, Friends of the Earth worked with Oakland Unified School District to document their carbon, water, and cost-savings over a period of two years as they switched their menus to be more plantforward. The school district reduced its carbon footprint by 14 percent, their water footprint by 6 percent, and they were able to use the savings from reduced meat and dairy purchases to increase purchases of protein-rich legumes,



Source: Adapted from Protein Scorecard. (2016). World Resources Institute. Retrieved from www.wri. org/resources/data-visualizations/protein-scorecard

fruits, vegetables, and better quality meat – improving students' diets and saving the district \$42,000 annually. This cost-saving potential has been demonstrated in a hospital setting as well. A pilot analysis of Health Care Without Harm's 'Balanced Menus: Less Meat Better Meat' program found that four San Francisco Bay Area hospitals generated an estimated foodservice savings of \$400,000 per year.

In summary, we respectfully urge a favorable report for SB 322 to give hospital patients and people who are incarcerated the ability to choose a healthy, plant-based option, and we need to shift the menus to be more plant-forward for everyone. Thank you for your consideration of our position. Please do not hesitate to reach out if you would like sources or more information.

Copy of Favorable-Letter-Thrive-Baltimore -SB-322-Uploaded by: Wiessman, Adam



6 E Lafayette Ave, Baltimore, MD 21202 Phone: (443) 863-8652

February 11, 2021

Senator Dolores G. Kelley, Chair Senator Brian J. Feldman, Vice Chair Senate Finance Committee 3 East Miller Senate Office Building 11 Bladen Street Annapolis, MD 21401

Subject: FAVORABLE - SB –322– Health Standards Plant-Based Meals in Prisons & Hospitals

Dear Chair, Vice Chair and Committee:

The U.S. spends at least 18% of its GDP (\$3.35 trillion) on health expenditures. If costs continue to rise, by 2050 Medicare and Medicaid alone will account for 20% of the GDP.¹ All projections point to continued rises in chronic disease. It has been stated by the American College of Lifestyle Medicine that Type 2 diabetes alone is a looming global pandemic with incalculable consequences.²

According to the American Diabetes Association, Maryland, as of 2014, Maryland spends \$6.5 Million on diabetes related illnesses.³ The Maryland Department of Health reports that heart disease is the number 1 cause of death of Maryland residents. According to the American College of Lifestyle Medicine, 80% or more of all healthcare spending in the U.S. is tied to the treatment of conditions rooted in poor lifestyle choices.

As result of this data regarding the poor health of Maryland Residents, Thrive Baltimore was founded as a dynamic community resource center located in the Station North community of Baltimore City to address the poor lifestyle choices of Baltimore residents through education. Run by a collective of food, environmental and social justice activists, our mission is to provide education, resources and support to anyone interested in adopting a healthier, more sustainable lifestyle.

Part of Thrive Baltimore's mission is to provide free plant-based cooking demos, nutrition lectures, food tastings, film screenings and other fun, informational programming in an open, socially conscious environment

- ² See What is Lifestyle Medicine <u>https://www.lifestylemedicine.org/What-is-Lifestyle-Medicine</u>
- ³ See "The Burden of Diabetes in Maryland" American Diabetes Association, Maryland <u>http://main.diabetes.org/dorg/PDFs/Advocacy/burden-of-diabetes/maryland.pdf</u>

¹ See Lifestyle Medicine Economic Research - <u>https://lmeconomicresearch.org/</u>

that makes it a space where all are welcome. We're dedicated to encouraging people to make healthier, kinder choices that will enable them to live more conscious lifestyles.

By offering low-cost delicious vegan food at all our events, we at Thrive Baltimore are doing our part to raise awareness and address the health disparities and food access issues that plague Baltimore City. We're also providing a practical alternative to the current food systems which cause so much harm to our health, our planet and the animals with whom we share the Earth.

Thrive Baltimore supports SB-322 because it provides inmates and patients in hospitals the opportunity to choose to eat a healthy plant-based meal. Moreover, we are most excited about the fact that SB-322 also encourages medical professionals in prisons and hospitals to obtain education in plant-based nutrition and Lifestyle Medicine, which is the use of evidence-based lifestyle therapeutic approaches, such as a plant-predominant dietary lifestyle, regular physical activity, adequate sleep, stress management, avoiding use of harmful substances and pursuing other non-drug modalities to treat, reverse and prevent chronic disease. The educational training is aligned with our mission at Thrive and we believe that the education portion of the bill will be the greatest opportunity to truly reduce the health disparities that exist in Baltimore.

At the end day, when returned citizens are healthy and health care providers are properly equipped to prevent and reverse chronic degenerative disease, communities can truly become healthy communities.

Therefore, we request a favorable report for SB-322.

Sincerely,

Adam Weissman

Adam Weissman Community Relations Manager

SB322_Hopkins.Coble_OPP.pdf Uploaded by: Coble, Annie

Position: UNF

UNIVERSITY & MEDICINE

JOHNS HOPKINS

Government and Community Affairs

SB 322 Oppose

- TO: The Honorable Delores Kelley Chair, Senate Finance Committee
- FROM: Annie Coble Assistant Director, State Affairs Johns Hopkins University and Medicine

DATE: February 11, 2021

Johns Hopkins opposes **Senate Bill 322 Health and Wellness Standards** – **Correctional Facilities and Health Care Facilities**. This bill would require all health care facilities to offer plant-based food alternatives. Johns Hopkins appreciates the intent of this legislation and is actively working to create more plant based options in all of its hospitals throughout the health system. In fact, Bayview Medical Center is now offering plant-based food options at all of the retail food venues. An example menu is attached to this testimony. Johns Hopkins also takes seriously the food needs of their patients while they are staying overnight. Information related to food allergies and preferences are collected and communicated to the food services staff for every inpatient. We have menu options to accommodate allergies and preferences. All of our patient menu items are coded based on the ingredients they contain to allow us to prevent the item from being chosen by a patient having an allergy to any of those ingredients. Johns Hopkins currently tracks over 100 allergens for our patients. As described above, we believe we are taking actions consistent with the intent of the SB 322; however, there are several provisions in this law that would make it impossible to implement.

Specifically, ensuring that plant-based food options are offered at the same or a lower cost when compared to nonplant-based options. Johns Hopkins does not purchase plant-based alternatives at the same price as nonplant-based options. Therefore, if this were to become law, Johns Hopkins would offer plant-based options at a financial loss.

Secondly, the provision that requires lowering the amount of sodium, saturated fat, and sugar in all foods is too vague to be effectively implemented. Johns Hopkins is dedicated to creating healthy options for all patients and staff. Recently, Johns Hopkins has been using behavioral economics methods to empower people to make healthy options. For example, the price of healthier food choices will be 20% lower than the cost of less healthier options, making it more enticing to choose the healthier option.

The goal of this legislation is admirable, to create a healthier Maryland. Johns Hopkins works towards this goal every day. However, the specifics of the legislation make it impossible to effectively implement. For these reasons, Johns Hopkins urges an unfavorable report on Senate Bill 322 Health and Wellness Standards – Correctional Facilities and Health Care Facilities.



Now serving plant-based proteins, and vegan and vegetarian options!

AJ'S DELI Chick'n Salad	71 CALORIES	193mg SOOLM	<0.5g SATURATED FAT
GREENS PROJECT Roasted Tofu	34 CALORIES	0mg SODILM	<0.5g SATURATED FAT
LEMONGRASS Vegetable Stir-Fry with plant-based protein	197 CALORES	1,230mg SOOR.M	1g SATURATED FAT
ROCCOS'S PASTA Ø Red Lentil Pasta	382 CALORIES	0mg sooil.H	Og SATURATED FAT
<pre>PRIME GRILL Ø Vegan Burger</pre>	234 CALORES	483mg SOOILM	SATURATED FAT
Portobello Mushroom	62 CALORES	56mg SOOKUM	<1g SATURATED FAT
SUPERBOWLS Vegetarian Options Available	Nutrition information available upon request.		

SB 322- Health – Health and Wellness Standards – C

Uploaded by: Frazee, Brian Position: UNF



Senate Bill 322 – Health – Health and Wellness Standards – Correctional Facilities and Health Care Facilities

Position: *Oppose* February 11, 2021 Senate Finance Committee

MHA Position

On behalf of the Maryland Hospital Association's (MHA) 60 member hospitals and health systems, we appreciate the opportunity to comment in opposition of Senate Bill 322. While we appreciate the intent of this legislation, hospitals oppose mandates of this nature in state law and regulations because dietary guidelines and definitions frequently change.

We know food is medicine. That is why Maryland hospitals offer plant-based meals to patients and visitors in accordance with their dietary needs. MHA works with advocacy organizations, including Friends of the Earth and Healthy Food in Health Care, to educate hospitals about these options. Last year, MHA partnered with these organizations to host a webinar to share strategies to serve more plant-based dishes and, more importantly, encourage patients and staff to eat more fruits and vegetables. It's clear a plant-based diet benefits patients and the general population, improves health, and helps the environment. When there are adequate staff resources to prepare plant-based foods from scratch, there can also be cost savings. Our patients, employees, and community benefit from choosing these healthier options.

Maryland hospitals assist patients who have limited access to fresh produce to continue healthy habits at home after discharge. Many hospitals make fresh produce available to patients and communities. That includes "prescriptions" for locally grown vegetables that can be redeemed at hospital-supported farmers markets and Hungry Harvest subscriptions that deliver fresh fruits and vegetables directly to Marylanders.

MHA appreciates the ongoing conversations with the advocates and sponsors of this bill as we work toward our shared goal of ensuring patients have access to plant-based food. However, particularly as we continue the fight against COVID-19, we cannot support mandates that could eventually put us into conflict with the most recent guidance and best practices for food options in our facilities.

For these reasons, we urge an *unfavorable* report.

For more information, please contact: Brian Frazee, Vice President, Government Affairs Bfrazee@mhaonline.org

DPSCS_LOI_SB322.pdf Uploaded by: Kahl, Catherine Position: INFO



STATE OF MARYLAND

LAWRENCE J. HOGAN, JR. GOVERNOR

BOYD K. RUTHERFORD LT. GOVERNOR

ROBERT L. GREEN SECRETARY

RACHEL SESSA CHIEF OF STAFF

CHRISTOPHER McCULLY DEPUTY SECRETARY ADMINISTRATION

WAYNE HILL ACTING DEPUTY SECRETARY OPERATIONS

CAROLYN J. SCRUGGS ASSISTANT SECRETARY

GARY McLHINNEY ASSISTANT SECRETARY

> CATHERINE KAHL ACTING DIRECTOR

Department of Public Safety and Correctional Services

Office of the Secretary Office of Government and Legislative Affairs 45 Calvert Street, Suite B7A-C, Annapolis MD 21401 410-260-6070 • Fax: 410-974-2586 • www.dpscs.state.md.us

BILL: SENATE BILL 322

POSITION: LETTER OF INFORMATION

EXPLANATION: This bill defines health and wellness standards to include "lifestyle medicine." SB 322 requires the Secretary of the Department to designate four correctional facilities to participate in a Correction Facilities Health and Wellness Pilot Program. Participating facilities will be required to (1) comply with the health and wellness standards adopted by the Secretary of Health; (2) require the Department to provide plant-based meal options, plant-based food options, and plant-based beverages to all inmates at least one day each week and to every inmate at every meal on request; (3) provide information resources to health care providers working in a correctional facility; (4) provide inmates information about plant-based food options; and in consultation with the Secretary of Health, establish guidelines to increase the availability of plant-based meal options.

COMMENTS:

- The Department's Division of Correction (DOC) operates approximately 17 State correctional facilities, which house offenders sentenced to incarceration for 18 months and longer. The Department also runs the Baltimore City Pretrial Complex, under the Division of Pretrial Detention and Services (DPDS), which houses pretrial detainees and inmates sentenced to incarceration for 18 months and less.
- The Department is already required to adhere to auditable standards set by the Maryland Commission on Correctional Standards. The requirements under SB 322 would conflict with this process. Additionally, the managing official of a correctional facility is responsible for having written policies and procedures, including (1) providing for a menu approved annually by a registered dietitian; (2) ensuring that three meals a day are served with not more than a 14-hour interval between the evening meal and breakfast; and (3) ensuring that the food service operation is licensed and meets State sanitation and health regulations as verified by inspection as required by the health department.
- There would be a significant fiscal impact associated with implementing SB 322. The sentenced population under the Department's care, custody, and control was approximately 18,800 for fiscal year 2019.

Under the bill, the Department must provide one plant-based meal option and one plant-based beverage to all inmates at each meal at least one day each week, which would cost more than \$105,000.

- The bill also requires the Department to provide every inmate a plant-based meal upon request. If the Department was required to provide every inmate plant-based meals, the cost would increase by over **\$4.4 million annually.**
- The Department already provides healthy options to the incarcerated population. Below are some specifics of the current standardized menus, and what is available to the Maryland inmate population:
 - o Inmates are able to sign up to have the option of a vegetarian meal plan (Lacto-Ovo).
 - The Division of Correction is currently providing a plant based meal to all inmates receiving a regular diet on four out of the five weekly menu cycles. Providing a plant based meal on the fifth cycle would increase the cost of up to \$0.65 per meal, or \$105,000 annually.
 - o Inmates may be placed on diets that adhere to religious practices and beliefs. All religious meals are plant based.
 - Inmates are placed on therapeutic diets for medical conditions.
 When this occurs, the therapeutic diets adhere to medical diets approved by the Department's Chief Medical Officer, Medical Services and the Department's Registered Dietitian.
 - o Lower fat meals are also being served.
 - o All juice beverages and tea served with meals are plant based.
 - o Beef products include soy resulting in a 3-5% reduction in fat content.
 - o Most poultry based items typically result in a 1-3% reduction in fat content.
- The bill requires a report detailing any change in illnesses or diagnoses of inmates that may result from their participation in the pilot program. This is information that may be protected under HIPAA.
- Changes in vendors, contracts, and cost of services have changed over the 5-year period required by SB 322. As a result, calculation of the services and costs of individual patient care provided may not be possible beyond the period serviced by the Department's current medical provider.

CONCLUSION: The Department of Public Safety and Correctional Services respectfully requests the Committee consider this information as it deliberates on Senate Bill 322.