TESTIMONY OF Erin Holmes
ON BEHALF OF Responsibility.org
IN SUPPORT OF House Bill 808

House Judiciary Committee
Maryland General Assembly
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Good afternoon Chairman Clippinger and distinguished members of the committee. Thank you for the opportunity to testify in support of Maryland **House Bill 808**. My name is Erin Holmes. I am the Vice President and Technical Writer for Criminal Justice Programs & Policy at Responsibility.org. Prior to joining Responsibility.org, I was a Research Scientist at the Traffic Injury Research Foundation (TIRF) where I published reports, evaluations, and articles and delivered presentations internationally on relevant impaired driving issues and strategies for criminal justice system improvements. As a nationally-recognized subject matter expert on alcohol and drug-impaired driving, I routinely serve as faculty for judicial organizations and have provided Congressional testimony on drug-impaired driving countermeasures.

Responsibility.org is a national not-for-profit organization and a leader in the fight to eliminate drunk driving and underage drinking. We are funded by leading distilled spirits companies who are committed to these causes including: Bacardi U.S.A., Inc.; Beam Suntory; Brown-Forman; DIAGEO; Edrington; Mast-Jägermeister US, Moët-Hennessy USA, and Pernod Ricard USA. For nearly 30 years, Responsibility.org has transformed countless lives through programs that bring individuals, families, and communities together to guide a lifetime of conversation around alcohol responsibility and by offering proven strategies to stop impaired driving. To find out more, please visit www.responsibility.org

Eliminating impaired driving through evidence-based practices

Responsibility.org researches current trends and develops policy and program initiatives to eliminate impaired driving. Our organization supports proven strategies and evidence-based practices to reduce the number of fatalities and injuries caused on our nation's roadways by individuals who choose to operate a motor vehicle while impaired. More than 10,000 deaths annually, or one-third of all motor vehicle crashes, are attributed to alcohol-impaired driving. Each one is entirely preventable.

Historically, Responsibility.org's focus has been the elimination of alcohol-impaired driving but in recent years, there has been a disturbing increase in the number of drivers who test positive for drugs or a combination of alcohol and drugs. Drug-impaired driving is the operation of a motor vehicle while under

the influence of, or impaired by, any substance with psychoactive properties (including illicit substances, prescription medications, over-the-counter medications). When ingested, drugs can impair driver performance, particularly when taken in combination with alcohol or other drugs. This preventable behavior represents a critical threat to public safety.

House Bill 808, which establishes an oral fluid pilot program in five Maryland jurisdictions, provides an opportunity to position Maryland as a leader in the fight against drug-impaired driving, an issue that all states are currently struggling to address. This pilot presents a unique opportunity to not only provide law enforcement with tools to strengthen impaired driving investigations, but also to learn more about the magnitude and characteristics of the drug-impaired driving problem in Maryland and create general deterrence among the public. The proposed approach is one that has been successfully implemented in Michigan (discussed below) and is supported by traffic safety organizations and criminal justice practitioners alike. **Responsibility.org supports HB 808 and strongly encourages this committee to pass this important and innovative legislation.**

Drug-impaired driving and the need for increased testing

Extent of the problem. While the true magnitude and characteristics of the drug-impaired driving problem are not known due to several significant data limitations, the statistics that are available reveal that this issue is in need of urgent attention. In 2016, the most recent year for which data are available, the National Highway Traffic Safety Administration (NHTSA) Fatality Analysis Reporting System (FARS) found that drugs were present in 43.6% of fatally-injured drivers with a known drug test result. This represents a substantial increase from 2005 when 27.8% of fatally-injured drivers tested positive (NHTSA, 2010; FARS, 2015). As in previous years, in 2016 cannabis was the most commonly found drug in the systems of drug-positive fatally-injured drivers. While 41.1% of these individuals tested positive for some form of cannabis, 19.7% of drug-positive drivers were found to have opioids in their system.

In addition to fatality data, results from NHTSA's National Roadside Survey (NRS) are also instructive in measuring the extent of drug-impaired driving in this country. In 2013-2014, NRS findings revealed that 22.4% of weekday day and 22.5% of weekend night-time drivers tested positive for illegal, prescription, or over-the-counter medications (Berning et al., 2015). The drug that has shown the largest increase in weekend night-time prevalence is cannabis. In the 2007 NRS, 8.6% of weekend night-time drivers tested positive for the main psychoactive ingredient in cannabis, Delta-9 tetrahydrocannabinol (THC); this increased to 12.6% by 2013-2014 representing a significant 48% increase over a seven year span.

Multi-substance impaired driving. Further complicating the drug-impaired driving issue is the realization that it is not uncommon for drivers to ingest several impairing substances at the same time. According to NHTSA, while many individual substances taken by themselves may not impair driving sufficiently to raise crash risk, when taken with other substances the effects may be additive or synergistic and produce an increased risk of crash involvement (Compton, et al., 2009; Romano et al., 2014). Research has continually shown that drugs used in combination or with alcohol produce greater impairment than substances used on their own (Schulze et al., 2012). Individuals who drive under the influence of alcohol and drugs are up to 200 times more likely to be involved in a crash (Shulze et al., 2012; Griffiths, 2014). In describing this increased level of impairment, the analogy of 1+1=3 is often

used to convey the risk associated with using multiple substances at the same time. The combination of alcohol and cannabis is particularly risky as it can dramatically impair driving performance. Recent simulator research has shown that the use of alcohol in conjunction with cannabis can produce significantly higher blood concentrations of THC (delta-9-tetrahydrocannabinol, the main psychoactive component in cannabis) than cannabis use alone (Ramaekers et al., 2000; Hartman et al., 2015).

The increased level of impairment and crash risk associated with combing multiple impairing substances is concerning as is the rate at which this behavior appears to be occurring. According to FARS data, in 2016, 50.5% of fatally-injured drug-positive drivers (with known drug test results) were positive for two or more drugs and 40.7% were found to have alcohol in their system (FARS as cited in Hedlund, 2018). Furthermore, recent data from Washington State – one of the first states to legalize recreational cannabis – revealed that poly-drug impairment was the most common type of impairment found among drivers involved in fatal crashes between 2008 and 2016 (Grondel et al., 2018). Among drivers involved in fatal crashes during this timeframe, 44% tested positive for two or more substances with alcohol and THC being the most common combination (Grondel et al., 2018).

Drug-impaired driving in Maryland. Reported Maryland crash data includes both alcohol and drug-impaired driving in a single category, however, the Highway Safety Office has raised concerns about increases in drug involvement in recent years as reflected by toxicology results and a greater number of citations issued for drug-impaired driving incidents. A report from the Drug Recognition Expert (DRE) Section of the International Association of Chiefs of Police (IACP), revealed that the polydrug problem is particularly significant. In analyzing DRE evaluation data for 2018, it was found that of the 863 enforcement evaluations performed, 426 cases likely involved polydrug impairment. Other common categories of drugs identified in evaluations include narcotic analgesics (opioids), depressants (benzodiazepines), and cannabis. Narcotics were identified in 50.4% of enforcement evaluations and depressants were identified in 46.1%. Refusals to submit to blood draws is also a significant concern and problem within the state.

Common testing concerns. Unfortunately, the prevalence of drug-impaired driving is inevitably underreported. While the majority of law enforcement officers are trained to identify drivers who are impaired by alcohol, many officers do not receive specialized training to identify the signs and symptoms of drug impairment. Moreover, it is easier for law enforcement to make an arrest and obtain a blood alcohol concentration (BAC) level from either a breath or blood sample than it is to complete an investigation for drug-impaired driving. The latter typically requires an evaluation by a Drug Recognition Expert (DRE), a law enforcement officer with extensive specialized training, who may not be readily available.

Blood tests are also needed to confirm the presence of drugs in a suspect's system. However, due to delays in obtaining this sample, test results often do not accurately reflect drug concentration levels at the time of driving on account of the rapid metabolization of these substances. In any DUI case where drug impairment is suspected, the delay in obtaining a blood sample is consistently cited by law enforcement as a substantial challenge. While impairment resulting from drug use can last for hours, chemical evidence dissipates rapidly within the body through the metabolization process.

As part of a standard DUI investigation, an officer must first conduct the roadside stop which includes contact with the driver and administration of the field sobriety tests. The officer must obtain enough evidence to establish probable cause in order to make an arrest. At this point, the individual is transported to the police station where he/she will be required to submit to an evidential breath test and a blood draw to determine if drugs are present. In instances where the suspect refuses to voluntarily submit to a blood draw, an officer must obtain a warrant. During this timeframe, drug nanogram levels within the bloodstream continue to drop. The end result is that the nanogram level detected in the evidential blood sample is unlikely to be reflective of what it was at the time of driving.

Use of oral fluid drug testing as an investigative tool

With growing concerns about increased rates of drug and multi-substance impaired driving, there must be more emphasis placed on testing impaired drivers for the presence of drugs, preferably at the roadside. The ability to do initial screening can be used for triaging purposes, determining whether it is necessary to conduct further investigation and chemical analysis. Moreover, the combination of screening results, observed signs and symptoms of impairment, and other evidence can collectively establish probable cause for an arrest. For officers who lack specialized drug impairment training, the addition of a screening tool can aid in decision-making as results can confirm the presence of drugs when an officer suspects impairment. Currently, the most viable technology that can be deployed for roadside drug screening is oral fluid testing.

Oral fluid testing can be done for preliminary screening or confirmation/evidential drug testing. **In the context of HB 808, oral fluid would be utilized for screening purposes only**. These screening devices are used by law enforcement at roadside during an impaired driving investigation to identify recent drug use. Most of the devices which have been evaluated in recent reports screen for specific drugs or drug classes including: cannabis (THC), cocaine, methamphetamine, amphetamine, opioids, and benzodiazepines.

How oral fluid testing works. Oral fluid, which is largely a reflection of the free drug circulating in the blood, can be collected and analyzed with commercially available field screening devices with the result being determined quickly (in under 10 minutes). The easy collection and rapid analysis are useful for situations where drug intake must be determined quickly in order to take further action. Oral fluid screening devices typically include an oral fluid collector (e.g., cartridge with pad) and a reader that has an internal detection system based on lateral fluid immunoassay. A suspect would be instructed by the officer to collect a sufficient oral fluid sample using the collector (cartridge) which is then inserted into the reader. For the devices that have potable analyzers, the presence of a drug can be determined by an objective reading of the test strip by the device itself.

The devices are analogous to preliminary breath tests (PBTs) for alcohol and should be used to establish probable cause only. At this stage, the officer has concluded that the driver is impaired and unable to safety operate a motor vehicle. The roadside oral fluid screen is used to identify what drug class(es) is/are likely causing the observed impairment. They display results of "positive" or "negative" and should be administered after standardized field sobriety tests (SFSTs) to confirm suspicion of drug use. The devices do not indicate the level of the drug present in the individual's body, instead results are

qualitative and merely indicate whether that individual is positive for certain substances above device cutoff limits. This information can be used to assist with obtaining a search warrant to collect a confirmation specimen (e.g., blood) that is sent to a forensic laboratory for analysis. It is this secondary sample that is admitted as evidence in court; a field screen/roadside test should not be used for evidentiary purposes. In other words, the results of roadside oral fluid screens are considered presumptive positives until an evidentiary confirmation has been conducted. An evidentiary confirmation will indicate the specific drug present and quantification. For example, an oral fluid screen indicates whether an individual is positive for the presence of benzodiazepines whereas a confirmation test in the laboratory would indicate the specific drug (e.g., Alprazolam) and a quantitative amount.

Devices. The following images display the most common oral fluid screening devices on the market. The first image (left) is the SoToxa manufactured by Abbott and the second image (right) is the DT5000 manufactured by Draeger. These devices are approved for use in a number of jurisdictions in the US and internationally such as Canada. For example, both devices are certified for use in Alabama and in Michigan, the SoToxa is the device that the Michigan State Police certified for use in their pilot program.

Advantages and strengths of oral fluid drug testing

The use of oral fluid screening devices to test for the presence of drugs at roadside has the potential to assist law enforcement in identifying a larger number of drug-impaired drivers who would otherwise escape detection. This practice provides objective data to assist in building probable cause for an arrest when considered in the context of other evidence. In addition, on-site screening devices identify the drug categories that evidential tests should examine, which can save both time and money. These devices offer many advantages as they are quick, easy to use, minimally invasive, capture recent use, and provide a sample proximate to the time of driving (Bosker and Huestis, 2009; Moore and Crouch, 2013; Wille et al., 2014).

Additional advantages of this form of testing include:

- Identifies presence of *recent drug use*
- Tests for the drugs/categories of drugs that account for the vast majority of drug-impaired driving cases
- Easy and fast collection
- Gender neutral collections
- Minimally invasive; similar to breath test
- No warrant requirement for collection
- Rapid results (<10 minutes)
- Demonstrated accuracy, sensitivity, and specificity
- Used in conjunction with other evidence to establish probable cause for arrest
- Results may support search warrant requests for other biological samples
- Ability to quickly identify drug and multi-substance impaired drivers (including those with a BAC above .08)
- Admissible in certain hearings (e.g., probable cause)
- Creates option for administrative license suspension/revocation for drug-impaired drivers
- Can create deterrence if public is aware that law enforcement have tools available at roadside to identify drug use

Common concerns. The distinction between preliminary screening and confirmation testing is important. In the proposed pilot program, oral fluid screening results would not be used as evidence. Also, because the program is a pilot, participation is strictly voluntary (i.e., an individual has the ability to refuse to provide an oral fluid sample). Furthermore, oral fluid screening only tests for the presence of drugs. Whenever oral fluid screening is discussed, concerns frequently arise about whether samples will be collected for other purposes such as analyzing DNA. This is a common misperception as DNA testing is not a standard part of any DUI investigation; moreover, DNA could also be obtained from evidential blood samples, not just an oral fluid swab and that is not done in the context of these investigations either.

Current use of oral fluid drug testing

While a newer technology in the United States, oral fluid screening has been used in other countries for many years. For example, Australia first instituted a random drug screening program using oral fluid testing in 2000 to identify drivers operating under the influence of THC and methamphetamine. More recently, Canada modified its impaired driving laws following the legalization of cannabis to allow law enforcement to compel an oral fluid sample if impairment is suspected. The decision to implement this as a solution in Canada occurred following a largescale pilot. Based on the outcomes of several studies, authorities were satisfied with the performance and reliability of the technology and opted to move forward with implementation nationally (see https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/rl-fld-drg-scrnng-dvc-plt/index-en.aspx for more information). Other countries that have introduced oral fluid

screening include Argentina, Austria, Belgium, Brazil, Chile, Columbia, France, Germany, Ireland, Italy, Netherlands, New Zealand, Poland, Portugal, South Africa, South Korea, Spain, Sweden, Turkey, United Kingdom, and Vietnam. Spain has one of the largest enforcement programs in the world with more than 800 SoToxa instruments actively deployed.

In the United States, oral fluid pilots have been conducted in numerous states including Alabama, California, Colorado, Florida, Kansas, Massachusetts, Michigan, Oklahoma, Oregon, Utah, Vermont, and Wisconsin. Other states are beginning to initiate pilots in the coming year. In addition to studying the viability of the technology, approximately 18 states have broadened either implied consent or testing statutes to allow for the use of this form of testing with others introducing similar legislation each year. The two states that are leaders in oral fluid testing are Alabama and Michigan as they have the most advanced and largest programs to date.

Alabama. Alabama became the first state to establish a permanent oral fluid program utilizing devices in both a screening and evidentiary capacity. Alabama's Oral Fluid Drug Testing Program was established under the leadership of Dr. Curt Harper at the Department of Forensic Sciences (ADFS). After piloting several devices including various oral fluid screening devices as well as Quantisal evidential testing, Alabama transitioned to a full program. The protocol utilized in Alabama is similar to other jurisdictions. As part of the initial DUI investigation, officers administer an onsite test at roadside once there is suspicion that an individual may be impaired by drugs. This test indicates whether that person is positive or negative for the presence of the most common drugs and the results can be used to help establish probable cause and justify an arrest.

Once an arrest is made, an evidential toxicology sample must be collected for forensic laboratory testing. This is where Alabama's approach differs from other jurisdictions. In the majority of states, officers collect blood samples in DUID cases to confirm the presence of an impairing substance(s) in the body. With the establishment of Alabama's new program, officers can now collect an evidential oral fluid sample to submit for confirmation testing at the state lab. The collection procedure is similar to that of oral fluid screening with the only difference being that officers have to follow a specific protocol using an appropriate collection tube and maintain a documented chain of custody. Upon collection, the Quantisal sample is sent to the lab and analyzed. Currently, ADFS analyzes evidential oral fluid samples for in excess of 20 drugs that are commonly found in impaired driving cases. More information about Alabama's program and evidential oral fluid testing can be accessed through ADFS (refer to https://adfs.alabama.gov/services/tox/toxicology-oral-testing-program).

Michigan. In 2016, Michigan became the first state in the nation to implement an oral fluid pilot as a result of legislation with the enactment of Public Act 242/243. Under this law, the Michigan State Police was given the authority to develop and implement an oral fluid pilot program in five counties. The pilot ran for a year and relied on DREs to administer the oral fluid test as part of DUI investigations if drug impairment was suspected. Unlike previous pilots in other jurisdictions, the Michigan program makes refusal to submit to an oral fluid test a civil infraction. In other words, participation in the pilot is not voluntary which is a key difference from HB 808.

Following the completion of the pilot which generated a total of 92 samples, a report summarizing findings was submitted to the legislature (included with testimony and accessible online:

https://www.michigan.gov/documents/msp/Oral_Fluid_Report_646833_7.pdf). The legislature deemed the outcomes to be promising and agreed to support the ongoing funding of the oral fluid pilot and the expansion of the program to additional interested, qualified counties around the state. An appropriation of $626,000 for the extension of the Oral Fluid Roadside Analysis Pilot Program was included in the supplemental funding bill that became Public Act 618.

The MSP continues to oversee the pilot which commenced in the fall of 2019. More than 50 agencies and over 100 DREs are involved in the largescale pilot and the hope is that the statewide program will produce a significant amount of data over the course of 2019-2020. If the program continues to produce promising results, there is great likelihood that the legislature and law enforcement agencies will transition from the pilot to a permanent program and the use of oral fluid onsite screening will become a standard component of DUI investigations in Michigan.

The Michigan experience is particularly relevant for Maryland as the approach proposed in HB 808 follows that of Public Act 242/243 and contains a similar structure and provisions. With another state serving as a model, Maryland legislators should have a high degree of confidence in the potential for a successful pilot. By starting small, data can be collected and reviewed by the legislature; at that time, decisions can be made regarding possible expansion opportunities.

Importance of identifying drug-impaired drivers

By following the examples set forth by Michigan and Alabama, Maryland legislators have the unique opportunity to position the state as a leader in combating drug-impaired driving. The issue is timely and relevant in the state as Maryland continues to experience high rates of opioid abuse and has established a medicinal cannabis program. As debates about recreational use are ongoing, Maryland should learn from the examples set forth in Michigan and Canada and make traffic safety a central part of those discussions. To prepare for recreational cannabis, both of those jurisdictions prioritized the piloting and use of oral fluid drug testing recognizing that it is important to be proactive and supply law enforcement with resources and tools to identify and remove drug-impaired drivers from the road.

The failure to identify these drug-impaired drivers has several implications that can lead to negative outcomes which underscores the importance of instituting a drug testing program as part of DUI investigations.

- Lack of testing leads to underreporting of the magnitude and characteristics of the drug and multi-substance impaired driving problem. Jurisdictions cannot determine how big the problem is and therefore, are limited in making informed decisions regarding policy/resource allocation.

- Failure to identify drug use at the point of arrest hinders the court in its ability to effectively dispose these cases and craft sentences that are tailored to individual offender risk and needs. Multi-substance offenders are more likely to be classified as high-risk and require more intensive supervision but if the presiding judge is unaware of drug use, it is unlikely that this will be accounted for when the sentence is imposed.

- Current laws are structured in such a way that unless drug use is identified at the outset of the case, offenders are unlikely to be subject to any drug monitoring and/or treatment. Unless the

court or probation are aware of a history of drug use, these offenders are unlikely to be subject to urinalysis or other forms of drug monitoring.

- Failure to identify drug use misses an opportunity to make informed decisions regarding supervision and treatment. In these instances, there is a lack of accountability as continued drug use is likely to go undetected. Lack of accountability and treatment for an underlying cause of DUI offending is likely to result in recidivism which places public safety at risk.

Conclusion

Responsibility.org believes that strong laws enabling swift identification, certain punishment, and treatment are fundamental elements necessary to reduce the incidence of impaired driving. Responsibility.org further believes that these elements must be coordinated into a statewide system in order to be effective. Maryland can do more to prevent impaired driving. The passage of HB 808 would ensure the identification of drug-impaired drivers in the locations where the oral fluid pilot program is introduced. This legislation will also add to the growing body of research on the feasibility of the use of oral fluid screening at roadside. Moreover, the passage of this bill will bring much needed attention to the seriousness of drugged driving and will provide opportunities to educate and raise awareness among the general public. Lastly, implementing a pilot of this nature would position Maryland alongside Alabama and Michigan as a leader in drug-impaired driving enforcement and prevention. As such, the passage of HB 808 should be a top priority for lawmakers this year. Responsibility.org thanks you for your leadership in this effort and implores you to vote yes on this legislation. Thank you.