Testimony of Erin Holmes
on behalf of
The Foundation for Advancing Alcohol Responsibility

Before the
Subcommittee on Digital Commerce and Consumer Protection
of the
House Energy and Commerce Committee

Hearing on
"*Examining Drug-Impaired Driving*"
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Good afternoon distinguished members of the committee. Thank you for the opportunity to testify on the issue of drug-impaired driving. My name is Erin Holmes and I am the Director of Traffic Safety at the Foundation for Advancing Alcohol Responsibility (Responsibility.org). 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 the following distilled spirits companies: Bacardi U.S.A., Inc.; Beam Suntory; Brown-Forman; Constellation Brands, Inc.; DIAGEO; Edrington; Mast-Jägermeister US, Inc.; and Pernod Ricard USA. For 27 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

Prior to joining Responsibility.org in 2014, I was a Research Scientist at the Traffic Injury Research Foundation (TIRF). During my tenure at TIRF, I published more than 40 reports, evaluations, and articles and delivered in excess of 50 presentations internationally on alcohol and drug-impaired driving, criminal justice system improvements, alcohol monitoring technologies, risk assessment, and drug policy. My complete curriculum vitae is enclosed with this testimony.

The issue of drug-impaired driving

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 significant threat to public safety.

While not a new issue, drug-impaired driving has come into greater focus in recent years due to the increasing number of states[1] that have legalized marijuana for medicinal and/or recreational purposes and the spread of the opioid and heroin epidemic through large swaths of the country has increased concerns about individuals driving high. Nearly 92 million adults in the United States (roughly 38% of the population), reported that they took a legally prescribed opioid in 2015.[2] Research has shown that 21-29% of patients prescribed opioids for chronic pain misuse them and between 8% and 12% will develop an opioid use disorder. In 2016 alone, 42,000 deaths were attributed to opioid overdoses. This translates to roughly 115 deaths every single day.[3] Several high-profile incidents of overdoses behind the wheel, often with children in the vehicle, have become emblematic of the seriousness of this issue.[4]

While the true magnitude and characteristics of the drug-impaired driving problem are not known due to several significant data limitations[5], 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 marijuana 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 marijuana, 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.[6] (Berning et al., 2015). The drug that has shown the largest increase in weekend night-time prevalence is marijuana. In the 2007 NRS, 8.6% of weekend night-time drivers tested positive for the main psychoactive ingredient in marijuana, Delta-9 tetrahydrocannabinol (THC). This number increased to 12.6% in the 2013-2014 NRS. That is a 48% increase in less than seven years. Fewer drivers were found to have opioids in their system with 5.5% of weekday day and 4.7% of weekend night-time drivers testing positive.[7]

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[1] Currently, 30 states have passed medical marijuana laws and nine states (AK, CA, CO, MA, ME, NV, OR, VT, WA) and DC have legalized recreational marijuana.

[2] Han, B., Compton, W.M, Blanco, C., et al. (2017). Prescription opioid use, misuse, and use disorders in U.S. Adults: 2015 National Survey on Drug Use and Health. *Annals of Internal Medicine,* 167(5), 293-301.

[3] National Institute of Drug Abuse. (2018). Opioid overdose crisis. Washington, DC: Author. https://www.drugabuse.gov/drugs-abuse/ opioids/opioid-overdose-crisis

[4] See Washington Post coverage of several of these cases.

[5] For an in-depth discussion of the limitations of FARS data including variability in testing rates, lack of standardization in testing protocols and laboratory cutoffs, and inability to infer impairment from drug presence alone, please refer to: Berning, A., & Smither, D.D. (2014). *Understanding the Limitations of Drug Test Information, Reporting, and Testing Practices in Fatal Crashes.* DOT HS 812 072. Washington, DC: National Highway Traffic Safety Administration. https://crashstats.nhtsa.dot.gov/Api/ Public/ViewPublication/812072

[6] Berning, A., Compton, R., & Wochinger, K. (2015). *Results of the 2013–2014 National Roadside Survey of Alcohol and Drug Use by Drivers. Traffic Safety Facts Research Note*. DOT HS 812 118. Washington, DC: NHTSA.

[7] Kelley-Baker, T., Berning, A., Ramirez, A., et al. (2017). *2013-2014 National Roadside Study of Alcohol and Drug Use by Drivers: Drug Results*. DOT HS 812 411. Washington, DC: NHTSA.

Concerns regarding polysubstance use

Further complicating the drug-impaired driving issue is the realization that it is not uncommon for drivers to take 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.[8]-[9] Research has continually shown that drugs used in combination or with alcohol produce greater impairment than substances used on their own.[10] The combination of alcohol and marijuana is particularly risky as it can dramatically impair driving performance[11] and recent simulator research has shown that the use of alcohol in conjunction with marijuana can produce significantly higher blood concentrations of THC than marijuana use alone.[12]

The increased level of impairment and crash risk associated with polysubstance-impaired driving 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 were positive for two or more drugs and 40.7% were found to have alcohol in their system. New data released by the Washington Traffic Safety Commission identifies polysubstance impairment as the most common type of impairment found among drivers involved in fatal crashes.[13] In fact, among drivers in fatal crashes between 2008 and 2016 that tested positive for alcohol or drugs, 44% tested positive for two or more substances with alcohol and THC being the most common combination.

Unfortunately, the prevalence of polysubstance-impaired driving is inevitably underreported. While the majority of law enforcement officers are trained to identify drivers who are impaired by alcohol, many officers are not trained 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 often requires an evaluation by a Drug Recognition Expert (DRE), a law enforcement officer with specialized training, who may not be readily available. Blood tests are also needed to confirm the presence of drugs in a suspect's system and due to delays in obtaining this sample, test results do not accurately reflect the concentration levels at the time of driving on account of the rapid metabolization of these substances.

If an officer observes impairment and can detect a BAC above the legal limit of .08, only DUI evidence and charges will likely be pursued. It is only when alcohol is ruled out as the cause of impairment or if the impairment is not consistent with the driver's BAC level that the use of drugs is explored. The

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[8] Compton, R., Vegega, M., & Smither, D. (2009) *Drug-Impaired Driving: Understanding The Problem & Ways to Reduce It: A Report to Congress.* Washington, D.C.: NHTSA.

[9] Romano, E., Torres-Saavedra, P., Voas, R.B., et al. (2014). Drugs and alcohol: Their relative crash risk. *Journal of Studies on Alcohol and Drugs,* 75, 56-64.

[10] Schulze, H., Schumacher, M., Urmeew, R., et al. (2012). *DRUID Final Report: Work Performed, Main Results and Recommendations*. Bergisch Gladbach, Federal Republic of Germany: Federal Highway Research Institute (BASt).

[11] Ramaekers, J., Robbe, H., & O'Hanlon, J. (2000). Marijuana, alcohol and actual driving performance. *Human Psychopharmacology: Clinical and Experimental,* 15, 551-558.

[12] Hartman, R.L., Brown, T.L., Milavetz, G. et al. (2015). Controlled cannabis vaporizer administration: Blood and plasma cannabinoids with and without alcohol. *Clinical Chemistry,* 61, 850-869.

[13] Washington Traffic Safety Commission. (2018). *Marijuana Use, Alcohol Use, and Driving in Washington State: Emerging Issues with Poly-Drug Use on Washington Roadways*. Olympia: Author.

rationale is that testing for alcohol only saves both time and money.[14] In fact, in some states there are policies in place that prevent labs for testing for chemical samples for the presence of drugs when a BAC is above .08 or .10 unless a request for additional testing is made. Therefore, DUI is the only crime where an investigation ceases once minimal evidence is obtained.

Several oral fluid pilots underscore the importance of testing beyond alcohol. In a study conducted in Miami-Dade County, 39% of drivers who were found to have a BAC above .08 also tested positive for the presence of drugs.[15] In another pilot in Dane County, WI nearly 40% of the subjects with BACs exceeding .10 screened positive for one or more drug categories in both oral fluid and blood.[16] In a real-world setting, the vast majority of these individuals would be identified as merely alcohol-impaired drivers.

One might question why it is necessary to identify drivers who use drugs in addition to alcohol if they can be prosecuted for DUI. The end result of current practice is that many drug-impaired drivers escape detection and the magnitude of the drugged driving problem is not accurately captured. More importantly, failure to identify drug use can hinder the identification of drug dependency and miss an opportunity to make informed decisions later in the criminal justice process. It is of vital importance for practitioners, particularly in community corrections and treatment, to have as much information as possible to make the most appropriate supervision and treatment decisions. The failure to test impaired drivers for drugs misses an opportunity to identify and address an underlying cause of impaired driving behavior and could result in recidivism.[17]

How to address the problem

To effectively reduce drug-impaired driving and save lives, a comprehensive approach must be employed. The problem is multi-faceted and, as previously noted, is frequently not limited to the use of a single impairing substance.

Lessons learned. Impaired driving comes in many forms. Alcohol, drug, and polysubstance-impaired driving all present a significant traffic safety threat. For more than three decades, a tremendous amount of work has been done to reduce alcohol-impaired driving and progress has been achieved as a result. Since 1982, there has been a long-term downward trend in alcohol-impaired driving fatalities. In the last 36 years, the number has been reduced by 50% and in the last decade, there has been a 34% decline. In 2016, alcohol-impaired driving fatalities accounted for 28% of all motor vehicle fatalities, the lowest percentage since NHTSA began reporting alcohol data. More than 10,000 lives continue to be lost annually which is completely unacceptable but it is important to recognize that the declines that have been achieved and the lessons that have been learned in recent decades can inform decisions on how to address impaired driving as a whole. Decreases in fatalities can be attributable to the changing of societal norms, increased enforcement, and more strategic and appropriate use of sanctions and

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[14] Government Accountability Office. (2015). *Drug-Impaired Driving: Additional Support Needed for Public Awareness Initiatives*. Washington, DC: United States Government Accountability Office.

[15] Logan, B., Mohr, A., & Talpins, S. (2014). Detection and prevalence of drug use in arrested drivers using the Dräger Drug Test 5000 and Affiniton DrugWipe oral fluid drug screening devices. *Journal of Analytical Toxicology*: doi:10.1093/jat/bku050.

[16] Edwards, L., Smith, K., & Savage, T. (2017). Drugged driving in Wisconsin: Oral fluid versus blood. *Journal of Analytical Toxicology,* 41(6), 523-529.

[17] Talpins, S., & Rogers, P. (2017). Overcoming the plateau: Reducing impaired driving by addressing drug-impaired drivers. *Global Journal of Addiction & Rehabilitation Medicine,* 1(4), DOI: 10.19080/GJARM.2017.01.555569.

treatment. To continue to achieve progress, improved and expanded implementation of effective programs and interventions (e.g., high visibility enforcement, ignition interlocks, DUI Courts, etc.) must continue.

Drug-impaired driving in many ways is a more complex problem than alcohol-impaired driving. Many of the policies and countermeasures that are effective in addressing DUI such as per se legal limits, ignition interlocks, and emerging technologies like the Driver Alcohol Detection System for Safety (DADSS) will not necessarily be viable options to reduce the occurrence driving under the influence of drugs. However, while recognizing that different policy approaches are needed to address certain aspects of drug-impaired driving, many of the strategies that have been utilized to reduce alcohol-impaired driving fatalities and recidivism can be translated and employed (e.g., zero tolerance laws for individuals under the age of 21, administrative license suspension/revocation (ALS/ALR)[18], enhanced penalties, etc.). In other words, it is constructive to examine the policies and programs that have been effective and replicate these tactics when feasible to do so or fold drug-impaired driving into existing DUI enforcement and education efforts.

Leadership. In order to address this issue, ongoing leadership is also required at both the national and state level. Congress assumed such a role in 2015 when drug-impaired driving was identified as a priority in the Fixing America's Surface Transportation (FAST) Act. The legislation tasked NHTSA with studying the relationship between marijuana use and driving impairment and to identify effective methods to detect marijuana-impaired drivers. Also in response to a requirement in Section 4008, the current state of knowledge on marijuana-impaired driving was summarized and provided to Congress in a 2017 report.[19] The FAST Act also directed NHTSA to create a national public awareness campaign to educate the public on the dangers of driving impaired by drugs. At the end of January 2018, NHTSA's Deputy Administrator Heidi King announced that drugged driving will become a top priority for the agency. In March, NHTSA brought together stakeholders in a *Call to Action*[20] to develop and adopt a collaborative and coordinated strategy to "set a course of action and take measurable steps to address the nation's drugged driving problem." NHTSA's engagement and leadership on this issue should be applauded and will be vital in ensuring that the issue is addressed on multiple fronts and done so in a relatively consistent manner.

At the state level, the Governors Highway Safety Association (GHSA) has been instrumental in providing states with guidance and identifying research, policy, program, and education needs to combat this problem. Since 2015, GHSA with support from Responsibility.org, has released three reports[21] that synthesize the current state of knowledge, drugged driving laws, and intervention strategies. An advisory panel consisting of national experts weighed-in to develop practical recommendations that policymakers, state highway safety offices, and practitioners can utilize to prevent and reduce drug-

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[18] For more information on this policy approach, refer to Talpins, S., et al., (2014). License revocation as a tool for combating drugged driving. *Impaired Driving Update,* 18(2), 29-33.

[19] Compton, R. (2017). *Marijuana-Impaired Driving: A Report to Congress*. DOT HS 812 440. Washington, D.C.: National Highway Traffic Safety Administration.

[20] Press release: https://www.nhtsa.gov/press-releases/nhtsa-launches-drug-impaired-driving-initiative-and-announces-march-15-summit

[21] These reports include the original Drugged Driving: A Guide for States (2015), the 2017 updated report, and the enclosed *Drug-Impaired Driving: Marijuana and Opioids Raise Critical Issues for States* (2018).

impaired driving. These recommendations, several of which are highlighted below, provide a roadmap for action.

Members of Congress, state legislators, and highway safety officials should continue to lead and identify ways to support and fund impaired driving policies and training while simultaneously seeking to close known barriers and knowledge gaps through system improvements and research.

Solutions

To reduce drug-impaired driving, policymakers are encouraged to take a broad and multi-faceted approach that involves a combination of education, policy, and enforcement initiatives. This includes expanding training for law enforcement, promoting the testing and use of new technologies, improving testing and data collection, focusing on high-risk individuals by emphasizing assessment and treatment in conjunction with accountability, and increasing public education through awareness campaigns. In addition, investment in research to better understand drug impairment and identify effective drug-impaired driving countermeasures should also be a priority.

1. **Enforcement** – law enforcement officers first began developing methods to identify drug impaired drivers in the 1970s, when the Los Angeles Police Department established the Drug Evaluation and Classification (DEC) Program.[22] The purpose of the program is to train officers to become Drug Recognition Experts (DREs), who are capable of identifying drug impairment. Officers are required to go through three phases of training totaling more than 150 hours along with field certification. The DEC program goes beyond the SFST training that most officers receive. DREs use a standardized protocol that allows them to determine whether a suspect is impaired, if that impairment is caused by drugs or can be attributed to a medical condition, and the category of drug(s) that are the cause of the impairment.

   Today, all 50 states, Canada, and the United Kingdom participate in the DEC program. But not every jurisdiction in the country has an officer trained as a DRE. Due to the level of commitment required to complete the training and the cost to train officers, it is not always a viable option for agencies that have limited staff and resources. In an effort to increase education and training among patrol officers more broadly, the Advanced Roadside Impaired Driving Enforcement (ARIDE) program was created. ARIDE is designed to bridge the gap between SFST training and the DEC program in that it is 16 hours of training that educates officers on how to identify the signs and symptoms of drug impairment.

   There is consensus within the traffic safety field that more officers need to be trained in ARIDE and certified as DREs. This was one of the priority recommendations identified in the GHSA reports. In 2016, 773 ARIDE classes were held nationwide, training more than 13,500 officers, prosecutors, and toxicologists. As of the end of 2016, there were 8,277 certified DREs throughout the country with 1,543 new officers trained that year.[23] Understanding that more resources are needed at the state level to accomplish this goal, Responsibility.org has established a grant program with GHSA, now in

[22] Learn more about the DEC program: http://www.theiacp.org/Drug-Recognition-Expert-Section

[23] International Association of Chiefs of Police. (2017). *2016 Annual Report of the IACP Drug Evaluation and Classification Program.* Alexandria, VA: http://www.decp.org/wp-content/uploads/2018/03/2016-DECP-Annual-Report.pdf

its third year, to provide funding to states to increase the number of officers trained to identify drug impairment. As a result of these grants, more than 1,500 officers in 13 states have received training.[24]

Recommendations for Congress:

- Ongoing support and funding is needed to increase the number of law enforcement officers trained in both ARIDE and the DEC program. In the recent Senate FY 2019 Transportation Housing and Urban Development appropriations, the Committee directed NHTSA to provide states with flexibility to use impaired driving countermeasures grant funding for both DRE and ARIDE training. An additional $5,000,000 appropriation was made to facilitate an increase in law enforcement training. Congress is encouraged to continue allocating funds to provide more training opportunities and to identify ways to make it easier for states to use impaired driving funds to address specific drug-impaired driving needs.
- Congress is also encouraged to make appropriations to provide additional training for prosecutors and judges to better educate them on drug-impaired driving issues.

2. **Technology (oral fluid screening)** – the use of oral fluid screening devices to test for the presence of drugs at roadside or in a police station has the potential to assist law enforcement in identifying a larger number of drug-impaired drivers who would otherwise avoid detection. This practice would provide objective data to help establish probable cause and require an evidential chemical sample. It is recommended that this technology be utilized within the context of a broader impaired driving investigation similar to preliminary breath tests (e.g., observations while vehicle is in motion and during the traffic stop, clues on the standardized field sobriety tests, etc.).

   These devices offer many advantages over blood and urine testing as they are quick and easy to use, minimally invasive, have a short detection window (i.e., positive findings are indicative of recent as opposed to historical use), and provide a sample proximate to the time of driving.[25] Multiple studies have found these devices to be reliable and valid including a formal evaluation done in the European Union that identified several devices with both sensitivity and specificity of more than 80%[26] and a recent Canadian evaluation[27] that found sensitivity exceeded 80% for most drug categories (including cannabis) and specificity exceeded 90% for all drug categories. As a result of these findings, Canadian law enforcement agencies plan to move forward with the deployment of oral fluid testing once legalization occurs later this year. Other countries such as Australia and the United Kingdom have been using this roadside drug testing technology for years.

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[24] Press release for 2018 grant announcement: https://www.ghsa.org/resources/news-releases/FAAR-Grants18. States that have received grant funds include FL, ID, MN, MT, NV, NY, IL(x2), RI, TX, VT, WA, WV, and WI.

[25] Bosker, W., & Huestis, M. (2009). Oral fluid testing for drugs of abuse. *Clinical Chemistry,* 55(11), 1910-1931; Moore, C., & Crouch, D. (2013). Oral fluid for the detection of drugs of abuse using immunoassay and LC-MS/MS. *Bioanalysis,* 5(12), 1555-1569.

[26] Schulze, H., Schumacher, M., Urmeew, R., et al. (2012). *DRUID Final Report: Work Performed, Main Results and Recommendations*. Bergisch Gladbach, Federal Republic of Germany: Federal Highway Research Institute (BASt).

[27] Beirness, D., & Smith, D. (2017). An assessment of oral fluid drug screening devices. *Canadian Society of Forensic Science Journal,* 50(2), 55-63.

Jurisdictions across the United States (including AL, CA, CO, FL, KS, MI, OK, VT) have piloted various devices to assess their viability. These pilots have concluded that oral fluid devices provide good information to law enforcement regarding the presence of active drugs in drivers' systems. In addition to providing law enforcement with another investigative tool, oral fluid testing could facilitate the creation of and ALS/ALR system like the one that exists for alcohol because of the on-site nature of the results. Current testing mechanisms (e.g., blood and urine testing) make the establishment of this administrative process far more difficult to implement.

Recommendations for Congress:

- NHTSA is currently researching the feasibility of incorporating on-site oral fluid devices in criminal justice processes. Given the pressing need to better identify drug-impaired drivers, Congress should support NHTSA in expediting this research and prioritize the creation of minimum standards for these devices (similar to what has been done for breath testing instruments and ignition interlocks).
- Congress should support the ongoing development and testing of new drug detection technologies (e.g., marijuana breathalyzers, transdermal devices).[28]

3. **Increasing standardization of drug testing** – one of the most significant challenges in collecting robust drug-impaired driving data is the lack of consistency in testing from one jurisdiction to another. Data is limited because some states test a very small percentage of fatally-injured drivers for the presence of drugs. Furthermore, laboratories using different test panels with varying cutoff levels. For example, some labs will have more sophisticated equipment and funding and, as a result, can test for a wider array of substances. Without improved testing it is difficult to increase the quality of data and subsequent analyses. For example, the inconsistent rate of drug testing and the lack of minimum standards that all labs can adhere to makes it difficult for FARS data to be used to compare states. It also makes it difficult to identify trends and generalize findings.

Recommendations for Congress:

- Congress should support the creation of national minimum standards for toxicological investigations in motor vehicle crashes and drug-impaired driving cases. The National Transportation Safety Board (NTSB) put forth this recommendation in 2012 and suggested that NHTSA develop and disseminate such standards to improve consistency.[29] Model standards have already been created by both the National Safety Council[30] and the Substance Abuse and Mental Health Services Administration (SAMHSA). NHTSA, in consultation with experts in the field of forensic toxicology should collaborate and reach consensus on what should constitute

[28] For more information about these emerging technologies, refer to Talpins, S., Holmes, E., & Sabet, K. (2017). Fingerprint sweat testing: A viable option for testing drugged drivers? *Tennessee District Attorneys General Conference DUI News,* 58, 4-5; Talpins, S., Holmes, E., Kelley-Baker, T., et al. (2017). Breath testing for cannabis: An emerging tool with great potential for law enforcement. *Between the Lines*, 25(2).

[29] National Transportation Safety Board. (2012). Recommendations H-12-32 and 33 to NHTSA. Washington, DC: www.ntsb.gov/safety/safety-recs/ RecLetters/H-12-032-033.pdf

[30] Logan, B., Lowrie, K., Turri, J. et al. (2013). Recommendations for toxicological investigation of drug-impaired driving and motor vehicle fatalities." *Journal of Analytical Toxicology*, doi:10.1093/jat/bkt059 and the 2018 update to these recommendations.

minimum drug testing standards. State officials should be involved in this process and be strongly encouraged to adopt and implement the testing protocols.

- Additional highway safety funds should be allocated to improve the quality of state labs. States should be afforded the flexibility to use said funds to hire additional lab staff and purchase lab instrumentation (such as liquid chromatography-tandem mass spectrometry (LC-MS/MS) to perform more advanced drug analysis). Improving the quality and abilities of laboratories has the added benefit of reducing backlog in DUI/DUID cases which is a common challenge encountered in many states.

4. **Targeting high-risk impaired drivers** – to reduce impaired driving fatalities, it is imperative that efforts focus on individuals who pose the highest risk to recidivate. Within the context of drunk driving, these individuals are typically classified as offenders who drive with high blood alcohol concentrations (.15 or higher), and do so repeatedly as evidenced by multiple arrests. Highly resistant to long-term behavior change, these individuals require more intensive supervision, accountability, and treatment interventions tailored to their individual needs. To save lives, reduce recidivism, and stop the revolving door of the justice system, more must be done to identify and address the underlying causes of impaired driving behavior among both alcohol and drug-impaired drivers. Polysubstance-impaired drivers are likely to fit within this high-risk category as they are at an elevated crash risk due to their use of multiple impairing substances.

   To improve outcomes, screening and assessment must guide decision-making within the justice system. The screening and assessment of impaired drivers – whether drunk, drugged, or poly-users – is imperative to determine individual risk level and treatment needs. Moreover, this practice allows practitioners to triage and allocate resources to those who require greater intervention.

   Assessments should not be limited to the identification of substance use disorders. While the most obvious etiology of impaired driving is an alcohol and/or drug problem, many impaired drivers also suffer from one or more mental health disorders. In a study conducted by researchers at Cambridge Health Alliance, approximately 45% of repeat impaired drivers were found to have a lifetime major mental health disorder other than alcohol/drug abuse or dependency.[31] Unfortunately, co-occurring disorders are often overlooked among this offender population and the failure to identify mental health issues misses an opportunity to employ a comprehensive approach to treatment and to address all underlying pathways to offending. Fortunately, assessment instruments are now available to assist practitioners in decision-making and facilitating recovery. Instruments such as the Computerized Assessment and Referral System (CARS)[32] and the Impaired Driver Assessment (IDA) are validated among an impaired driver population and are available free of cost to interested parties.

   Another high-risk group that could benefit from specific policies are young drivers. Motor vehicle crashes are the leading cause of death for U.S. teenagers and young drivers are at-risk of crash

[31] Shaffer, H., Nelson, S., LaPlante, D., LaBrie, R., & Albanese, M. (2007). The epidemiology of psychiatric disorders among repeat DUI offenders accepting a treatment-sentencing option. *Journal of Consulting and Clinical Psychology*, 75(5), 795-804.
[32] Holmes, E. (2017). *Computerized Assessment and Referral System: Implementation Process Evaluation.* Arlington, VA: Responsibility.org. To learn more about CARS and download the instrument, visit: www.carstrainingcenter.org

involvement due to their relative inexperience behind the wheel.[33] The use of impairing substances (e.g., alcohol, marijuana and/or other drugs), puts them at heightened risk of being involved in a crash. Decades of research have shown that policies targeted at youth are effective in reducing crashes. For example, the 21 minimum legal drinking age law, graduated licensing laws, and zero tolerance policies for people under 21 who drive with any alcohol in their system have led to a nearly 80% reduction in alcohol-involved traffic fatalities among young drivers since 1982. In a 2009 analysis, Fell et al. estimated that zero tolerance laws save 159 lives each year.[34] The passage of zero tolerance laws for drugs, including marijuana, for drivers under the age of 21 could potentially save laws. This approach would apply a well-established and evidence-based policy and extend it to other illicit substances and send a strong message about the dangers of drug-impaired driving.

Recommendations for Congress:

- Congress should continue to support and make appropriations for assessment and treatment interventions and associated evidence-based criminal justice programs such as treatment courts (e.g., DUI Courts). Investment in these practices can facilitate behavior change, long-term recovery, and reduce recidivism.
- Congress and state legislatures should support the establishment of zero tolerance laws for drivers under the age of 21 who drive with illicit or impairing drugs in their systems, creating parity with existing zero tolerance alcohol laws.

5. **Education efforts** – to prevent impaired driving in all forms it is necessary to educate the public on the risks, illegality, and consequences of engaging in the behavior. Public education and advocacy initiatives can be credited with changing societal norms related to drunk driving and, subsequently, altering behavior. A similar preventive approach should be employed with drug-impaired driving as the public tends to have pervasive misperceptions about the behavior including: DUID is not a serious problem; driving high is a safer alternative to driving drunk; drug use (particularly marijuana use) does not adversely affect driving ability or, in some instances, may improve driving ability; driving high is not illegal; and law enforcement cannot detect individuals impaired by drugs. Recent roadside survey data from Washington state reveal that these attitudes are quite common for marijuana use and the majority of users (64%) who self-report driving within two hours of smoking feel as though their drug use did not make any difference in their driving.[35]

   Of particular concern are youth attitudes about marijuana-impaired driving. A 2017 study conducted by Liberty Mutual Insurance and Students Against Destructive Decisions (SADD) illustrates this point. In a survey of 2,800 high school students, 33% of respondents believed it was legal to drive under the influence of marijuana in states where recreational use has been legalized. Furthermore, only 68% of teens said that driving under the influence of marijuana is dangerous, 27% thought it does

[33] Centers for Disease Control and Prevention. (2015). Web-based Injury Statistics Query and Reporting System (WISQARS).
[34] Fell, J., Fisher, D., Voas, R., Blackman, K., & Tippetts, S. (2009). The impact of underage drinking laws on alcohol-related fatal crashes of young drivers. *Alcohol Clinical and Experimental Research,* 33(7), 1208-1219.
[35] Washington Traffic Safety Commission. (2018). *Marijuana Use, Alcohol Use, and Driving in Washington State: Emerging Issues with Poly-Drug Use on Washington Roadways*. Olympia: Author.

not make someone a worse driver, and 22% admitted that this behavior was common practice among their peers.

Recommendations for Congress:

- National campaigns are needed to dispel misperceptions, change attitudes, and hopefully, change behavior as a result. These campaigns should have clear messages that educate the public about the inherent dangers of drug-impaired driving. Several states including Colorado (*Drive High, Get a DUI* and *The Cannabis Conversation*), California (*DUI Doesn't Just Mean Booze*), and Wisconsin (*Dose of Reality*) have developed and implemented well-received campaigns that can serve as examples. Congress is encouraged to monitor NHTSA's progress in creating largescale education campaigns and to provide appropriations to expand these public outreach efforts if deemed effective.
- Given the current opioid epidemic, there must be more education in the public health and medical fields. While prescription drugs contain labels that warn against operating heavy machinery and many physicians and pharmacists emphasize this information with patients, more can be done. Congress should encourage federal agencies including NHTSA, the White House Office on National Drug Control Policy (ONDCP), and the Federal Drug Administration (FDA) to explore opportunities to increase education about the dangers of driving after using prescription drugs.

Additional policy and system improvements recommendations can be found in the accompanying GHSA report (see Hedlund, 2018) and Responsibility.org Policymakers Checklist.

In summation, impaired driving in all its forms presents a significant threat to public safety and is an economic burden on society. In the climate of the opioid epidemic and post-legalization America, jurisdictions are facing the challenge of how to effectively address drug-impaired driving. Congress, NHTSA, state highway safety offices, traffic safety organizations, and practitioners must continue to work collaboratively and take a systems approach to prevent the occurrence of this behavior, improve the administration of justice, and further knowledge in the field. We look forward to engaging with these stakeholders in the coming months and applaud the leadership that continues to be exhibited at the Federal level. Collectively, we can reduce drug-impaired driving, decrease recidivism, and ultimately, save lives.

Testimony of Erin Holmes, Director of Traffic Safety at Responsibility.org:

Key Takeaways & Recommendations

The drug and polysubstance-impaired driving problem. Drug-impaired driving is a serious public safety concern and poses a major threat on the nation's roadways. 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.

Further complicating the issue is the realization that it is not uncommon for drivers to take several impairing substances at the same time. Research has continually shown that drugs used in combination or with alcohol produce greater impairment than substances used on their own. In 2016, 50.5% of fatally-injured drug-positive drivers were positive for two or more drugs and 40.7% were found to have alcohol in their system. Polysubstance-impaired drivers are often not identified if they have a blood alcohol concentration (BAC) above .08 which has implications for supervision and treatment.

Solutions. To effectively reduce drug-impaired driving and save lives, a comprehensive approach must be employed. Drug-impaired driving is more complex than alcohol-impaired driving; therefore, different policy approaches are needed to address certain aspects of the problem. However, it is constructive to examine the policies and programs that have been effective in reducing alcohol-impaired driving and replicate these tactics when feasible to do so or fold drug-impaired driving into existing DUI enforcement and education efforts.

Ongoing leadership is required at both the national and state level. NHTSA recently announced that drug-impaired driving will be a top agency priority. Their engagement will be vital in ensuring that the issue is addressed on multiple fronts and done so in a relatively consistent manner. Members of Congress, state legislators, and highway safety officials should continue to lead and identify ways to support and fund impaired driving policies and training while simultaneously seeking to close known barriers and knowledge gaps through system improvements and research.

What can Congress do? Policymakers are encouraged to take a broad and multi-faceted approach that involves a combination of education, policy, and enforcement initiatives. Recommendations include:

- Provide ongoing support and funding to increase the number of law enforcement officers trained in both ARIDE and the DEC program.
- Provide appropriations for prosecutor and judicial training to better educate them on drug-impaired driving issues.
- Support NHTSA in expediting oral fluid testing research and prioritize the creation of minimum standards for these devices (similar to what has been done for breath testing instruments and ignition interlocks).
- Support the ongoing development and testing of new drug detection technologies (e.g., marijuana breathalyzers, transdermal devices).

- Support the creation of national minimum standards for toxicological investigations in motor vehicle crashes and drug-impaired driving cases.
- Allocate additional highway safety funds to improve the quality of state labs. States should be afforded the flexibility to use said funds to hire additional lab staff and purchase lab instrumentation (such as liquid chromatography-tandem mass spectrometry (LC-MS/MS) to perform more advanced drug analysis).
- Continue to support and make appropriations for assessment and treatment interventions and associated evidence-based criminal justice programs such as treatment courts (e.g., DUI Courts).
- Support the establishment of zero tolerance laws for drivers under the age of 21 who drive with illicit/impairing drugs in their systems, creating parity with existing zero tolerance alcohol laws.
- Monitor NHTSA's progress in creating largescale drug-impaired driving education campaigns and provide appropriations to expand these public outreach efforts if deemed effective.
- Encourage federal agencies including NHTSA, the White House Office on National Drug Control Policy (ONDCP), and the Federal Drug Administration (FDA) to explore opportunities to increase education about the dangers of driving after using prescription drugs.
- Continue to invest in research initiatives to better understand drug impairment and identify effective drug-impaired driving countermeasures.

Supporting materials:

- Hedlund, J. (2018). *Drug-Impaired Driving: Marijuana and Opioids Raise Critical Issues for States.* Washington, DC: Governors Highway Safety Association.
- Responsibility.org (2017). *Driving Under the Influence of Drugs: A Checklist for Policymakers*.
- Flannigan, J., Talpins, S., & Moore, C. (2017). Oral fluid testing for impaired driving enforcement. *Police Chief Magazine,* January issue, 58-63.

Suggested additional reading:

- Hedlund, J. (2017). *Drug-Impaired Driving: A Guide for States.* Washington, DC: Governors Highway Safety Association. https://www.ghsa.org/sites/default/files/2017-07/GHSA_DruggedDriving2017_FINAL_revised.pdf