

Cannabis Consumers and Safe Driving: Responsible Use Messaging



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INTRODUCTION

As the nation continues to experience an increasing number of traffic deaths and injuries, societal shifts on the use and acceptability of cannabis and related products have combined with this trend for deadly results. Ambiguity and misinformation around cannabis' effects on driving creates confusion and concern both in the highway safety community and for the public. Education and public outreach are critical tools used by all State Highway Safety Offices (SHSOs) to convey safety messages. Educational initiatives addressing the danger of driving impaired due to alcohol consumption have been successful in deterring drivers from getting behind the wheel after drinking, though more progress is needed to eliminate drunk driving. When it comes to cannabis and driving messaging, states need to adapt to a different impairment landscape.

With funding from [Responsibility.org](#) and the [National Alliance to Stop Impaired Driving \(NASID\)](#), the Governors Highway Safety Association (GHSA) commissioned this report to provide SHSOs guidance and strategies for educating drivers and the public about cannabis use and driving. Through research, interviews and a survey of states and territories, this report discusses how SHSOs are currently messaging about the issue and the delivery channels – including partnerships – they are using to reach key audiences. This report builds upon an unpublished 2021 Cannabis Regulators Association (CANNRA) white paper by providing additional strategies and recommendations about promising practices that can enhance safety partnerships and increase the effectiveness of outreach and education on cannabis use and driving.

LEGISLATIVE EFFORTS

The legal landscape around cannabis is rapidly evolving. In 2011, no state had legalized cannabis for recreational use by adults. Ten years later, 18 states had done so, either by citizen initiative or through legislative action. In 2021 alone, four states legalized recreational cannabis and 15 additional states introduced unsuccessful cannabis-related legislation. While another four states are expected to have recreational cannabis on their ballots in November 2022 (Hartman, 2021), six states have already enacted 17 pieces of cannabis-related legislation between January and mid-March 2022 (National Conference of State Legislatures [NCSL], 2022a). As of the publication of this report, 18 states allow the use of medical cannabis, 12 states permit the use of specific cannabis products for designated medical conditions and 18 states and the District of Columbia (D.C.) permit medical and recreational uses of cannabis for individuals 21 and older. Two states do not allow the legal use of cannabis (NASID, 2022).

Regardless of state law, cannabis use is increasing in the United States. In 2019, 18% of people 12 and older – 48.2 million people – reported using cannabis at some point in the prior year. This is up from 11%, or 25.8 million people, who reported use in 2002 (Substance Abuse and Mental Health Services Administration, 2020).

CANNABIS AND HIGHWAY SAFETY

Recreational cannabis laws have been associated with increases in motor vehicle crashes in the U.S. A Highway Data Loss Institute (HLDI) study compared insurance data before and after sales of recreational cannabis began in Colorado, Nevada, Oregon and Washington. The study found a 4% increase in collision claims after retail sales of cannabis became legal, compared to nearby states where recreational cannabis was illegal during the same period (HLDI, 2020). Research by the Insurance Institute for Highway Safety (IIHS) found legalization and retail sales of cannabis were associated with a 6% increase in injury crash rates in California, Colorado, Nevada, Oregon and Washington, compared to other Western states. The study also found a 4% increase in fatal crash rates, but this effect was not statistically significant (Farmer, in press). Conversely, enactment of medical cannabis laws has been associated with 8% to 11% reductions in traffic fatality rates, compared to rates pre-enactment (Anderson, 2013; Santaella-Tenorio, 2017).

Before the COVID-19 pandemic, 21% of drivers involved in fatal crashes had tetrahydrocannabinol (THC), the main psychoactive compound in cannabis, present in their systems at the time of the crash. During the pandemic, data from trauma centers found that number rose to 33%, a statistically significant increase. In fact, active THC was more prevalent than alcohol among fatal crash-involved drivers during the pandemic (33% versus 29%) (Thomas, 2020), though drunk driving fatalities also increased. Recent research also found that drivers using cannabis in combination with other substances, a trend already on the rise (Hedlund, 2017), increased even further during the pandemic. Twenty-five percent of fatal crash-involved drivers tested positive for multiple impairing substances, compared with 18% prior to the pandemic (Thomas, 2020).

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While researchers agree that consuming cannabis can affect bodily systems and impair faculties important for safe driving, the precise impact of cannabis on driving is less clear and less easily quantifiable than the impact of alcohol on driving (IIHS, 2021; National Highway Traffic Safety Administration [NHTSA], 2022).

The Public's View of Cannabis and Driving

Although most people believe that impaired driving is dangerous, the latest AAA Foundation for Traffic Safety (AAA FTS) Traffic Safety Culture Index found that many people view the risks of driving after drinking alcohol and driving after consuming cannabis differently. When questioned about the perceived danger of driving after drinking enough to be over the legal limit, 95% of respondents considered this behavior to be very or extremely dangerous. Only 69% of people surveyed assessed the same level of danger for driving within an hour of using cannabis. Respondents also had different views about the potential legal consequences for these two behaviors. Less than one-third (29%) thought it was somewhat or very likely that a driver would be caught by police within an hour of using cannabis, while two-thirds (66%) believed police apprehension was somewhat or very likely when a driver had consumed enough alcohol to reach the legal limit (AAA FTS, 2021).

Educating Drivers About Cannabis and Driving

The disconnect between using cannabis and safe driving underscores the urgent need for public education on this issue. While public information and education about alcohol-impaired driving has long been a staple for SHSOs, communications initiatives about cannabis- or multiple substance-impaired driving are less prevalent.

A survey of the SHSOs reveals varied levels of experience with the implementation of cannabis use and driving education and public outreach initiatives. SHSO staff from 27 states and two territories provided survey responses.

Cannabis is legal for recreational and medical use in 12 states and one territory that responded to the survey, while in eight states and one territory, cannabis is legal for medical use only. Fourteen states and two territories sponsor specific education campaigns that address driving and cannabis use, while five other states support public information campaigns that address general drug-impaired driving. The cannabis and safe driving campaigns were created by SHSO contractors in eight states, by SHSO staff in five states and three campaigns used existing cannabis and driving materials created by NHTSA.

The general tone of these campaigns varied: eight focus on educating the public about the physical effects of cannabis; three states emphasize the potential for crash-related death and injury; two efforts use the threat of enforcement; and one state uses humor, while another uses positive social norming. Most campaigns (eight) are directed at all drivers, while five are geared toward young drivers. Several other public education efforts focus on males, multicultural groups, vehicle owners and/or lower income cannabis users.

The disconnect between using cannabis and safe driving underscores the urgent need for public education on this issue.

Why Cannabis Use and Driving Campaigns Are Needed

While states have been warning the public for years about the dangers of alcohol-impaired driving, rapid changes in state laws and increases in both cannabis- and multiple substance-impaired driving require a shift in messaging. Impaired driving messages for all substances have some commonalities, particularly in the call to action for responsible choices, such as the suggestion to plan ahead or find alternative transportation. But explaining why cannabis users must take action requires careful consideration of differences in public perception, toxicology and legal status between cannabis and alcohol:

- Many users do not believe cannabis negatively affects their driving. In fact, some believe cannabis consumption improves it. The more often people consume cannabis, the less dangerous they consider driving under the influence of cannabis to be (Colorado Department of Transportation [CDOT], 2020).
- Cannabis impairment is harder to quantify.
 - › Research on alcohol's impairing effect has been documented for decades. The close association between alcohol consumption and crash risk is possible because alcohol dissolves in water and spreads through saliva and breath, evenly saturating a person's lungs and blood. The volume of alcohol in one part of the body, particularly blood or breath, can predictably tell how much alcohol is in another part, such as the brain. Research also shows that the level of impairment tracks with the measurable levels of alcohol in a way that is consistent among most people. Thus, researchers and police investigators can reliably quantify alcohol impairment.
 - › By contrast, cannabis dissolves in fatty tissue, which acts like a sponge that reduces measurable amounts of cannabis in blood, saliva or breath. As a result, impairment does not rise and fall uniformly based upon how much THC is present in a person's bodily fluids. In addition, the level of impairment and THC accumulation can vary based upon the frequency of cannabis use, the method of ingestion, the percentage of THC in the product consumed and differences in body types. This makes reliable measurement of cannabis impairment an ongoing struggle (National Public Radio [NPR], 2016). The cannabis industry frequently introduces new products and unfamiliar strains that can have a wide range of effects on the user (NCSL, 2022b).
- As laws addressing cannabis change, a shift from illegal to legal may impact the focus of safe driving campaigns. Rather than talking about illegal substances, the message may need to focus on safe and responsible choices or harm reduction.

Current Cannabis and Driving Campaigns

At the federal level, NHTSA developed and made available to states and their safety partners marketing materials highlighting cannabis' impact on driving. Launched in 2019, the umbrella campaign, "If You Feel Different, You Drive Different," with the tagline "Drive High and Get a DUI," reminds drivers of the dangers of drug-impaired driving. It also emphasizes this behavior is a crime (NHTSA, 2022). For 2022, NHTSA worked with the Ad Council to produce "Don't Drive High" public service announcements that remind cannabis users to think twice before driving after consuming cannabis. NHTSA also developed additional materials for states and road safety advocates geared to specific holidays, such as July 4th and 4/20 or April 20, an unofficial holiday celebrating cannabis culture. Using the theme, "Baked goods and baked drivers are a bad recipe," creative materials are tagged with the campaign's signature refrain, "If You Feel Different, You Drive Different."

The SHSO survey responses describe how many states use NHTSA materials to raise awareness about cannabis-impaired driving, while several others have developed their own campaigns. The legalization of recreational cannabis in 2012 in Colorado and Washington state predated the earliest national campaigns cautioning users about driving after using cannabis. The SHSOs in these states started their public education efforts from scratch and learned several key lessons along the way.

To put it bluntly: Don't drive high. 🌿



COLORADO

Colorado stakeholders involved in creating early cannabis and safe driving messaging readily admit that initial efforts to respond to the 2012 recreational cannabis law missed the mark. Early campaigns used images of “stoner” or “Cheech and Chong-like” messengers that offended cannabis users and fostered distrust not only of the sponsoring government agency, but also of the safe driving message.

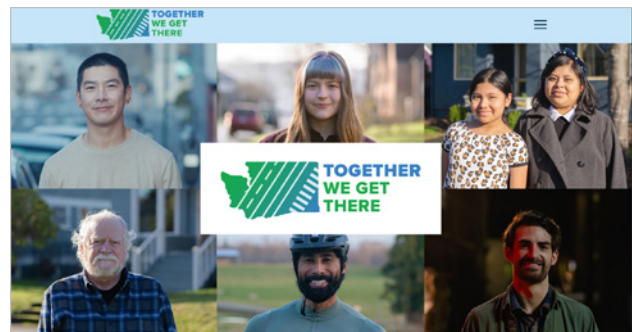


A statutorily mandated and permanent seat for the cannabis industry on the state’s influential Governor’s DUI Task Force resulted in a partnership with CDOT’s Office of Transportation Safety that continues today. After the initial missteps, CDOT collaborated with industry stakeholders to solicit their feedback and develop more inclusive safety messages that resonated with cannabis consumers. The partners conduct ongoing research and evaluation that includes soliciting input from cannabis consumers. Convening focus groups through what has been dubbed the “Cannabis Conversation” (CDOT, 2020) fostered greater trust between stakeholders and resulted in more impactful safety campaigns and events.

Using facts and science-based [educational messages](#) delivered by diverse and credible non-government messengers has proven to be an effective strategy (CDOT, 2022). Working with cannabis retailers and advocacy groups on events and seller-to-consumer messaging has also been an important strategy in reaching cannabis consumers with safe driving promotions. CDOT’s cannabis-impaired driving campaigns are funded by cannabis sales tax revenue.

WASHINGTON STATE

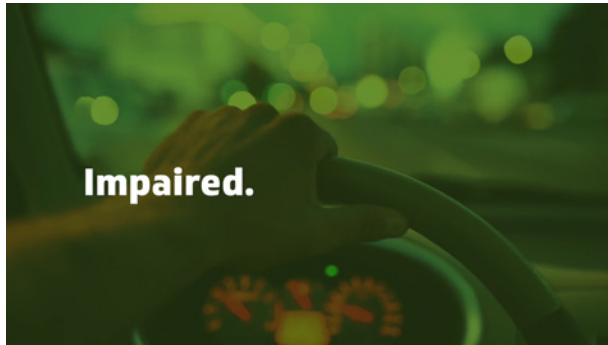
When recreational cannabis was legalized in Washington in 2012, the Washington Traffic Safety Commission (WTSC) borrowed Colorado’s initial campaign. However, like CDOT, the effort encountered similar pushback. With the organic growth of partnership among industry leaders, retailers and government, WTSC shifted its messaging approach from “here’s what’s wrong” with consuming cannabis to themes focusing on social norming and a positive traffic safety culture. Using trusted messengers, the current cannabis-impaired driving campaign encourages cannabis consumers to be responsible, plan ahead and have the difficult conversations with friends and loved ones who drive after consuming cannabis. The change in tone from fear-based and shaming to mutual responsibility for safe roads is in line with Washington’s core traffic safety message of “[together we get there.](#)” Cannabis-impaired driving campaigns in Washington are supported solely by federal grant funds under 23 U.S.C. Section 402.



Over the past decade, many SHSOs have learned from Colorado and Washington’s early experience with cannabis and safe driving messages and leveraged those lessons to develop their own campaigns.

CONNECTICUT

Recreational cannabis became legal in Connecticut on July 1, 2021, although retail sales are expected to begin later in 2022. Within weeks of the law's enactment, the Connecticut Office of Highway Safety used dedicated funding from a cannabis revenue set-aside to initiate a multi-message educational cannabis and safe driving campaign. The simple, non-judgmental [messaging](#) reminds drivers that despite cannabis being legal, driving while impaired by cannabis is illegal and can lead to a DUI. Social media, radio, TV, billboards, bus panels and printed materials are being used to convey this message. Anecdotally, early feedback has been positive.



WYOMING

Recreational cannabis is illegal in Wyoming. Working with the University of Wyoming to refine impaired driving messaging strategies, the Wyoming Highway Safety Program surveyed cannabis users and found 96% of respondents already knew cannabis was illegal in the state. This prompted a shift away from an earlier public education strategy that stressed the illegality of cannabis. Instead, messaging was directed to young men ages 21-34 to reinforce that driving while impaired by cannabis can result in an arrest for DUI since trained law enforcement officials (Drug Recognition Experts [DREs]) are able to detect impairment. Sponsored by the Governor's Council on Impaired Driving, the general impaired driving campaign was expanded from "Don't go down that road," to "Driving high is not our style. Don't go down that road." This message was directed to drivers via outdoor advertising on roadways connecting Wyoming and Colorado, where, in the latter, cannabis is legal.



PROMISING PRACTICES

Through numerous interviews with state and cannabis industry stakeholders and reviews of research, reports and messaging campaigns, common themes have emerged. These themes can be useful for SHSOs that are considering developing a campaign or tweaking an existing one.

- **Partnerships.** Several state leaders strongly recommended working with cannabis industry groups, advocates and retailers to craft, co-brand and disseminate cannabis and safe driving messages. Whether relationships form organically or develop as the result of participation in formalized state DUI task forces or other groups, all parties interested in preventing cannabis-impaired driving are “encouraged to check biases at the door” and work together to help keep road users safe. Cannabis industry groups can help develop campaigns that are most likely to motivate behavior and culture change among cannabis users. Partnerships can also be a bridge to integrate safe driving messaging into broader industry communications on safe use. In states where cannabis legalization was recently enacted or still being considered, partnerships can be even more important. While it may initially be awkward to work together after being adversaries in the legalization battle, most stakeholders agree that cannabis consumption (regardless of its legal status) already occurs in their state, and no one benefits from cannabis-impaired driving.

Even in states where cannabis is illegal, there may be an emerging cannabis organization that can be approached to partner with on safe driving campaigns. National cannabis-oriented organizations, such as the [U.S. Cannabis Council](#), can be helpful in identifying which state-level affiliate groups are willing to work on these efforts. Cannabis industry stakeholders have an interest in reducing and eliminating cannabis impaired driving, which is a concern frequently cited by legalization opponents.



- **Dedicated funding.** Ongoing, dedicated resources for educating the public about the illegality and dangers of cannabis-impaired driving are critical to combatting the popular misconceptions that cannabis has no effect on driving or positively impacts driving skills. States that have been successful in securing stable education and prevention funding from state cannabis tax revenues are a step ahead in supporting public safe driving campaigns. Stakeholders in states considering legalization of cannabis for medical or recreational purposes would be wise to encourage policymakers to dedicate state funding for highway safety programs and safe driving educational campaigns in particular. Statutory language should:
 - › Index funding to cannabis tax revenue to ensure that as sales increase, funding for highway safety programs increases proportionately.
 - › Funnel funding directly to SHSOs for use in developing and implementing highway safety programs and coordinating cannabis-related messaging with existing impaired driving campaigns.
- **Campaign basics.** Approaches to educational campaigns vary with a state’s legal status on cannabis as well as how messaging reflects regional and cultural norms. However, after studying several states’ campaigns, the following observations apply to all educational efforts addressing cannabis use and driving:
 - › Campaigns should be factual, rely on research and be focus group tested.
 - › Unexaggerated, straightforward and truthful education about the consequences of cannabis use and driving is more effective than fear, shame or humor-based messaging.

- › Messengers are most effective when they are trusted, community-based and not government representatives. The exception is law enforcement officials who are trained to detect impairment by cannabis and other drugs.
- › Cannabis consumers should never be stereotyped or ridiculed.
- › Regardless of the legal status for cannabis use, cannabis-impaired driving is illegal in every state and should be the primary campaign focus.
- › Myths that cannabis has no effect on driving or improves one's ability, focus or driving skills must be dispelled. Legalizing cannabis does not make it safe to consume and drive.
- › Enforcement-related messaging should objectively and dispassionately focus on the capabilities and training of law enforcement officers, such as DREs, who are trained to detect and identify cannabis-impaired drivers as well as any driver under the influence of an impairing substance.

RECOMMENDATIONS

The need for fact-based and effective public information about cannabis use and driving is clear, as evidenced by the growing number of states that have legalized the drug and the millions of people who report using it, both alone and in combination with other impairing substances. Misconceptions about cannabis and its effect on driving abound, while negative traffic safety outcomes created by cannabis-impaired driving are increasing. SHSOs are uniquely positioned to provide facts about cannabis and driving and create science- and data-based educational campaigns to address these mistaken beliefs. The following recommendations drive home the most important factors states must consider and should address in their public information and education efforts to stop cannabis- and multiple substance-impaired driving.

Encourage dedicated funding for highway safety programs derived from a portion of cannabis sales tax revenue.

SHSOs and their partners should strongly encourage policymakers to dedicate a portion of the tax revenue generated from the sale of legal cannabis to highway safety programs and public education as well as outreach initiatives that address cannabis-impaired driving. In addition, lawmakers should be urged to revisit existing laws that lack this provision and be provided with data and research demonstrating the need for enhanced public awareness.

Ongoing public education on the consequences of cannabis-impaired driving is critically important given the level of misinformation surrounding the impact of cannabis use on driving, as well as the rising rate of cannabis involvement in fatal crashes. Stable and sufficient funding indexed to state cannabis sales will ensure that safety stakeholders can deliver timely and relevant education and public information that addresses the state's most pressing needs related to cannabis-impaired driving.

Form partnerships with the cannabis industry.

SHSOs are strongly encouraged to develop partnerships with cannabis industry representatives, retailers and advocates. Partnerships legitimize all parties to one another and the public; cannabis stakeholders gain a voice and a seat at the table; SHSOs gain insight into cannabis consumer motivations and

behaviors, enabling more effective messaging. Working together, collaborative education campaigns can reflect the desires of all partners to help keep cannabis consumers safe. According to one SHSO leader, “partnerships break down the scar tissue of illegality” and allow stakeholders to work cooperatively. Partnerships create more opportunities to spread the safety message.

Enlist trusted advisors to serve as messengers.

Factual safe driving messages should be conveyed by people and institutions that cannabis consumers trust. Government leaders and institutions are generally not good choices. Retail cannabis salespeople or “budtenders,” peers or respected persons from the cannabis user community have a better chance of delivering safety information that will resonate with cannabis consumers. Using diverse and non-traditional messengers can also help improve message reception.

While government representatives are not typically considered to be trusted messengers, cannabis consumers pay attention to messaging by law enforcement officers. However, this type of messaging should not be about the legal status of cannabis but instead should focus on law enforcement’s ability to detect cannabis-impaired driving. This message should be delivered, if possible, by less conventional law enforcement representatives, such as females, native speakers and/or officers who are persons of color.

Using diverse and non-traditional messengers can also help improve message reception.

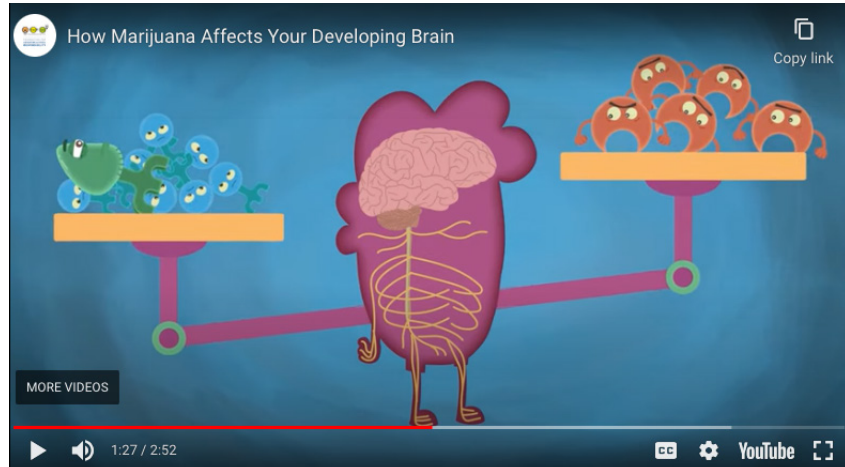
Use language that resonates with cannabis consumers.

Language matters. Through focus groups, surveys and insights from cannabis partners, SHSOs should learn and employ the language used by the intended audience when talking about cannabis or cannabis products and their effects. Message credibility may suffer if outdated vernacular like “pot” or “weed” is used instead of current terminology. Regional language differences should be considered as well when developing messages, as terminology may vary in different parts of the country. Talking about cannabis “consumers” rather than “users” in states where use is legal can also enhance acceptance. Prioritize communication channels like social media to fine tune and direct campaign messages to specific audiences. This is usually the most effective way to direct educational efforts and should be a key component of any media strategy.

Consider messaging content and know your target audience.

Some of the earliest errors in communicating the dangers of cannabis-impaired driving occurred when campaigns used unflattering stereotypes of cannabis users. Insulting or judging the target audience rarely improves message reception and turns people off, resulting in the message getting lost. Not driving after using cannabis should be the primary focus of informational campaigns, not the use of cannabis itself. Messaging that appeals to the risks versus rewards of driving after consuming cannabis can be effective with the target audience, which tends to be young and male. Because it is not clear what responsible use of cannabis really is or looks like, appeals to moral sensitivity – normative choices that are considered “good” or “right” – may have a greater effect on changing behavior than the usual “just don’t do it” messaging.

In addition to messaging directly to cannabis consumers, it's also important to reach parents, teachers, coaches and others with influence over young drivers who often believe it's safe to use cannabis and drive. Even in states where use is legal, cannabis consumption is illegal for persons under 21. Resources such as [Responsibility.org's Ask, Listen, Learn](https://www.responsible.org) module can equip parents and other influential adults to have critical conversations with tweens and teens about the effects of cannabis use.



IN SUMMARY

Using fact-based messages, trusted messengers and relevant activities and channels to reach target audiences, safe driving campaigns focused on making better choices after using cannabis can save lives. Partnering with stakeholders from all sectors of the cannabis and highway safety communities to develop and promote these campaigns can improve the credibility and reception of safe driving messages. As a primary source for safe driving messages, SHSOs can successfully lead these efforts, raise awareness of the cannabis- and multiple substance-impaired driving problem, develop effective tools to inform the public and improve traffic safety outcomes for all road users.

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The Governors Highway Safety Association (GHS) is a nonprofit association representing the highway safety offices of states, territories, the District of Columbia and Puerto Rico. GHS provides leadership and representation for the states and territories to improve traffic safety, influence national policy, enhance program management and promote best practices. Its members are appointed by their Governors to administer federal and state highway safety funds and implement state highway safety plans.



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