



PACT Coalition for Safe and Drug-Free Communities

Office of Traffic Safety
Impaired Driving Needs
Assessment and Review
of Evidence-Based Interventions
FY25

Acknowledgements

PACT Coalition for Safe and Drug-Free Communities (PACT) wishes to thank its substance misuse prevention partners throughout the State of Nevada for their enthusiastic and professional collaboration on this project. As a collective, the coalitions extend thanks to every **community member** who participated in a focus group or completed the Impaired Driving Survey.

PACT's CEO, Jamie Ross, oversaw the completion of this project. Ayla Babakitis, Coalition Manager and Certified Prevention Specialist for PACT, was primarily responsible for coordinating and finalizing this project.

The data for this project was compiled, analyzed, and organized with the support of an external consultant:

Impact Evaluation & Assessment Services
Margo Teague, Principal
margo.impactevaluation@gmail.com
impactevaluationservices.com

*This publication was supported in whole or in part by the
Nevada Office of Traffic Safety.*

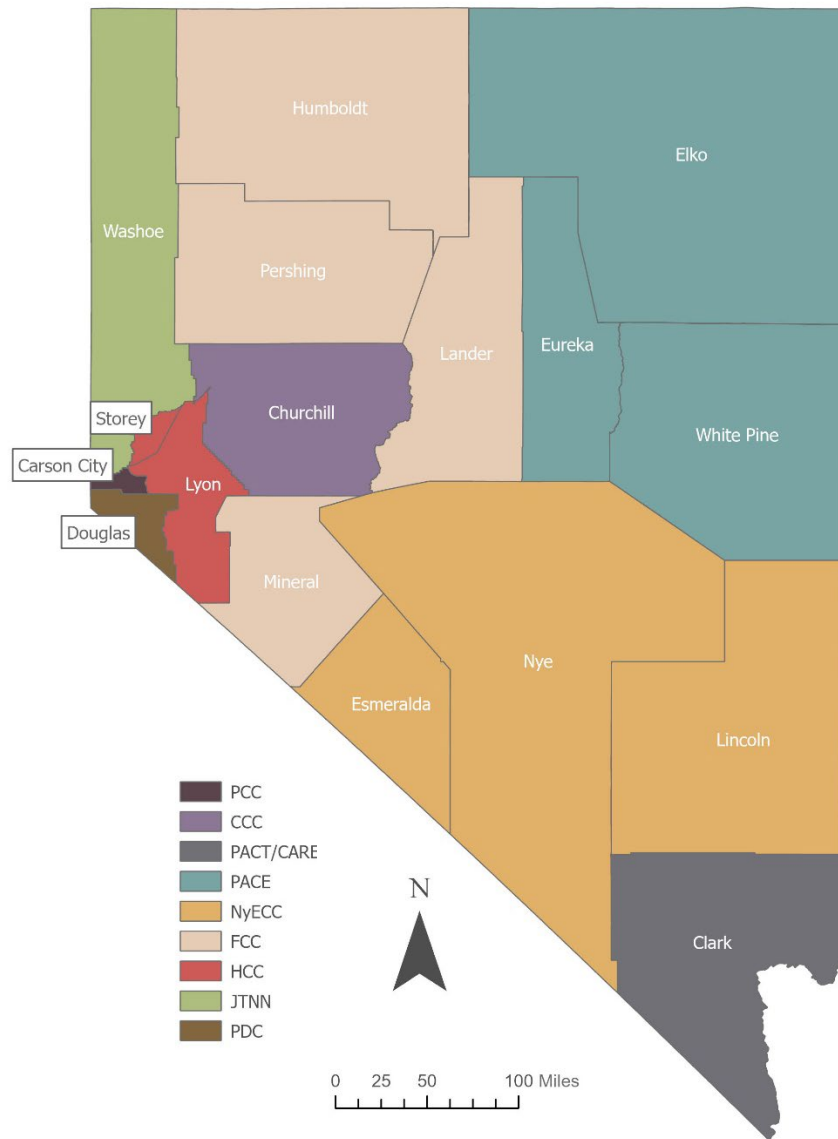
Contents

Theoretical Frameworks and Methodology	5
Theoretical Frameworks	5
Methodology	6
Results	7
Survey	7
Focus Groups	24
Conclusions and Recommendations	28
Intervention Opportunity #1: Preplanning	30
What the research says about Preplanning	30
Intervention Opportunity #2: Recognition and Acknowledgement of Impairment, Transportation Options, and Intervention Strategies	36
What the research says about Recognition and Acknowledgement of Impairment, Awareness and Utilization of Transportation Options, and Safe, Effective Intervention Strategies	36
Intervention Opportunity #3: Consequences and Witness Behaviors	43
What the research says about consequences as a deterrent for future impaired driving, and witness behaviors	43
Appendix A – Impaired Driving Survey (English)	48
Appendix B – Impaired Driving Survey (Spanish)	56
Appendix C – Focus Group Script	64
Appendix D – Focus Group Worksheet	66
Appendix E – Sources	67

PACT Coalition for Safe and Drug-Free Communities (PACT) obtained a grant from the Nevada Office of Traffic Safety for the purpose of working with their coalition partners throughout the State of Nevada to:

1. Gain an understanding of Nevada residents' knowledge and attitudes regarding impaired driving; and,
2. Gain insight from Nevada residents about successful public awareness campaigns intended to reduce impaired driving.

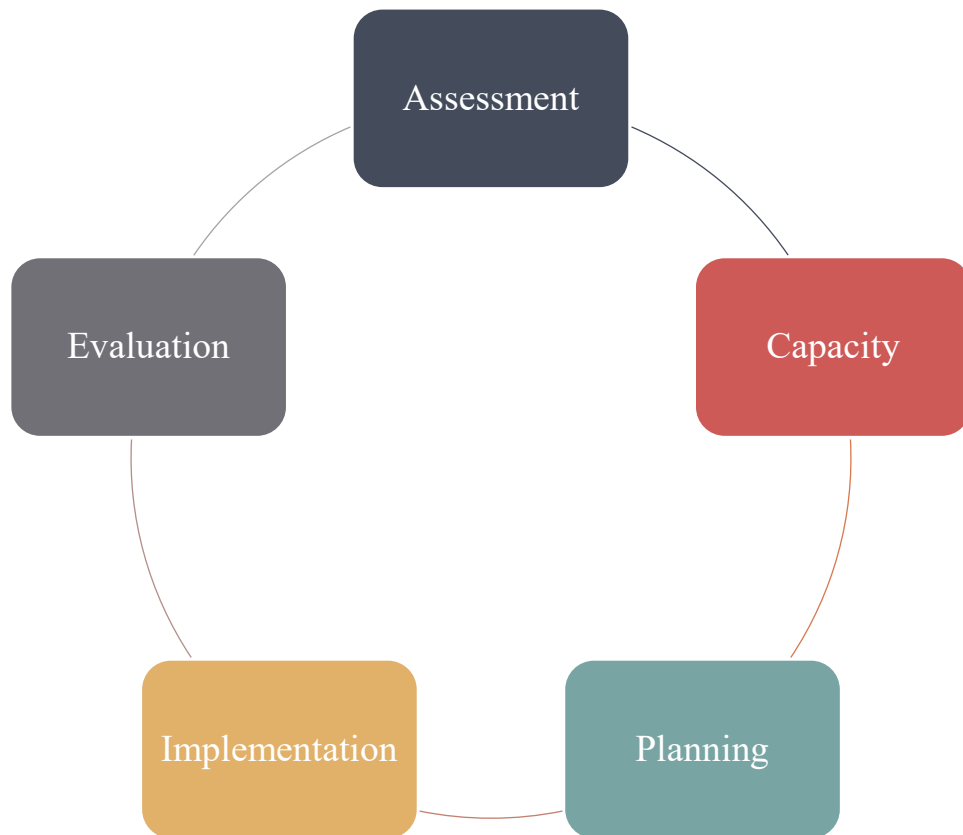
PACT worked with their substance misuse prevention partner coalitions throughout the state to accomplish this task, see map below:



Theoretical Frameworks and Methodology

Theoretical Frameworks

PACT and their partner coalitions utilize the Strategic Prevention Framework as their theory of change. This framework, which was developed by the Substance Abuse & Mental Health Services Administration Center for Substance Abuse Prevention, was designed to help community coalitions guide their activities to maximize their impact on substance abuse.



This project is exclusive to the Assessment aspect of the framework.

PACT and their partner coalitions utilize the Collective Impact model as their framework for collaboration. PACT served as the “backbone” for this needs assessment by obtaining funding, arranging for training, and otherwise organizing necessary activities. The coalitions are working on a “common agenda” of reducing the incidence of impaired driving in their communities and statewide. This needs assessment will support the State of Nevada in their efforts, which is a “mutually reinforcing activity” with the coalitions.

Finally, PACT and their partner coalitions engage in SAMHSA's 6 strategies for substance misuse prevention. This project will support information dissemination, community-based processes, and environmental strategies.

Methodology

Survey

PACT Coalition worked with an external evaluator (Impact Evaluation & Assessment Services) to develop a written survey (Appendix A). The survey was based on a review of work completed by the National Highway Traffic Safety Administration. Both the Nevada Office of Traffic Safety and coalition partners had opportunities to review and offer suggestions to improve the survey.

The survey was translated into Spanish (Appendix B). Both versions were available through an electronic link. Each coalition was responsible for distributing the survey to community members. Representatives from each coalition attended a training session with the external evaluator. This was a non-probability convenience sample. Coalitions were instructed to survey individuals who were not directly related to their coalitions in order to reduce bias from individuals who might have specialized knowledge. They were also instructed to avoid recruiting survey respondents who have specific experiences or beliefs about impaired driving (e.g., those who have been impacted by a driving while impaired accident). Finally, coalitions were asked to stratify their responses based on six age groups (18-65 and over).

The survey was available from May 7, 2025, through July 31, 2025. The results were captured in the external evaluator's SurveyMonkey account. Coalitions were provided with an update on the number of surveys received from each ZIP code each month.

Focus Groups

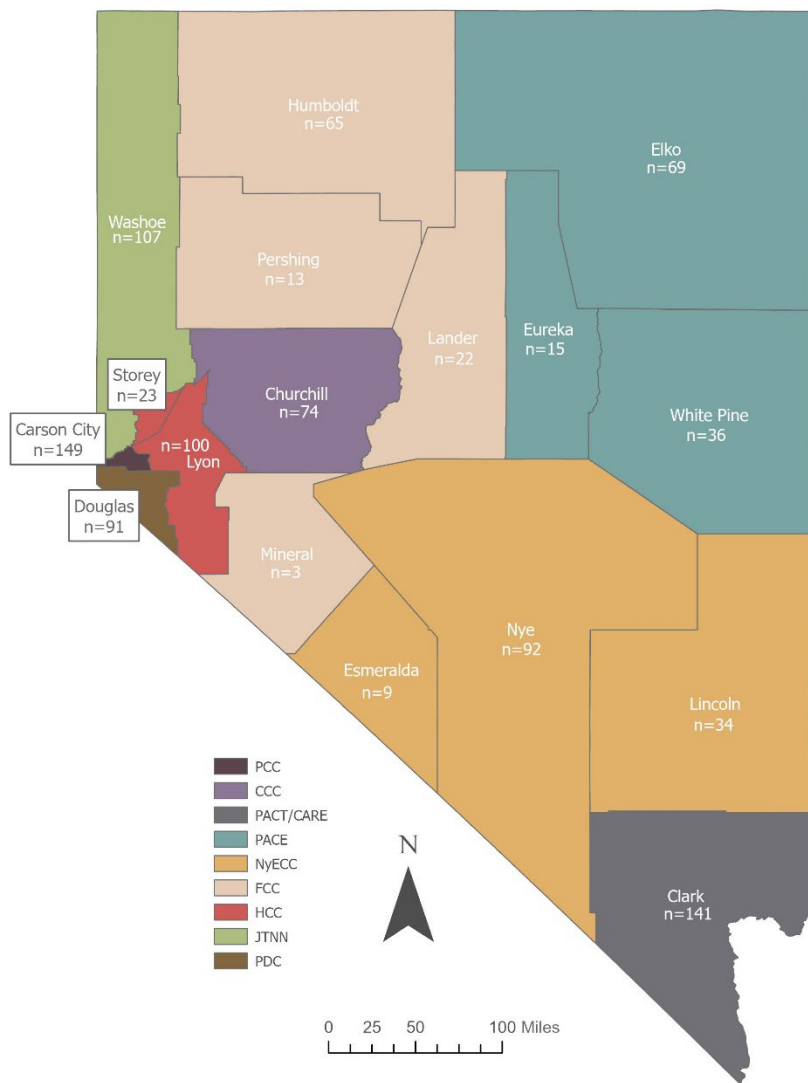
Representatives from each coalition attended a training with the external evaluator regarding the consistent facilitation of focus groups. Coalitions were instructed to recruit 7-10 participants for at least one focus group per county served. Similar to the survey methodology, they were instructed to work to recruit individuals without specialized knowledge or specific experience with impaired driving. Coalitions were provided with a script and instructions for facilitating using Liberating Structure's 1-2-4-All methodology. The focus groups were designed with three parts: defining impaired driving; identifying contributing factors to impaired driving; and recommending approaches to reducing impaired driving. Coalitions were provided with prompts to encourage discussion.

Coalitions were instructed to take notes for each of the three approaches and, finally, were provided with a worksheet to capture their interpretation of findings. The worksheets, as well as the notes that were taken during focus groups, were forwarded to the external evaluator for analysis. Results were coded, and common themes were identified.

Results

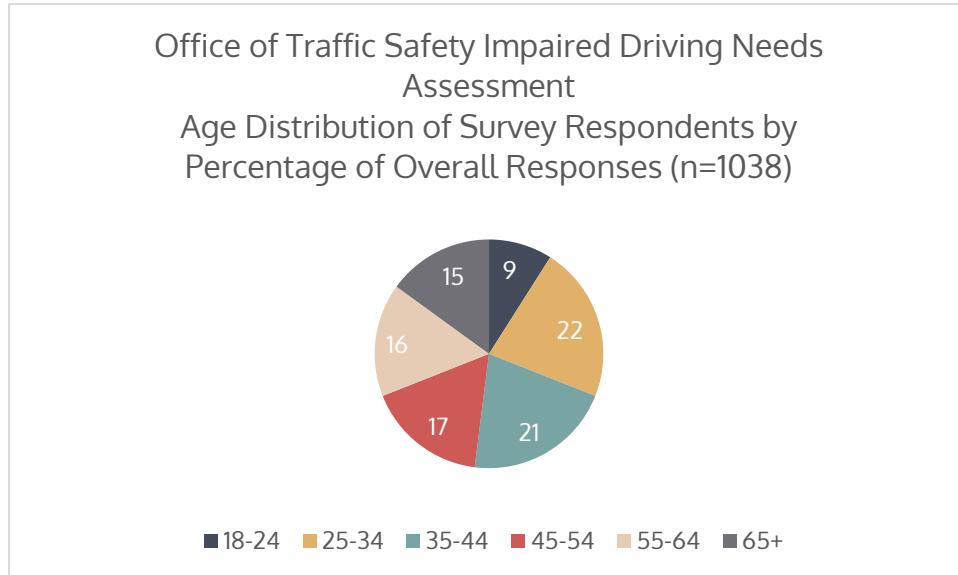
Survey

The survey methodology resulted in the following:



Results are reported both in aggregate (all survey respondents combined statewide) and disaggregated by coalition service area when appropriate.

Survey respondents reported the following age ranges:



The overall sample provides a fair representation of age categories throughout the State of Nevada. Age categories by coalition service area are depicted on the chart below:

OTS Needs Assessment Survey									
Age Distribution of Respondents by Percentage									
	JTNN	FCC	PACE	NyECC	PACT	HCC	PCC	CCC	PDC
18-24	11.1	1.9	9.4	12.6	9.9	7.6	4.1	12.2	5.5
25-34	25	12.6	27.4	16.3	39.7	8.5	11.6	21.6	15.4
35-44	19.4	22.3	31.6	14.8	23.4	17.8	12.3	27	28.6
45-54	14.8	26.2	11.1	17	13.5	15.3	23.3	16.2	17.6
55-64	17.6	25.2	11.1	19.3	7.1	22	20.5	10.8	23.1
65+	12	11.7	9.4	20	6.4	28.8	28.1	12.2	9.9

Definition of Impaired Driving

Q3 Which substances can interfere with a person’s ability to safely drive a vehicle?

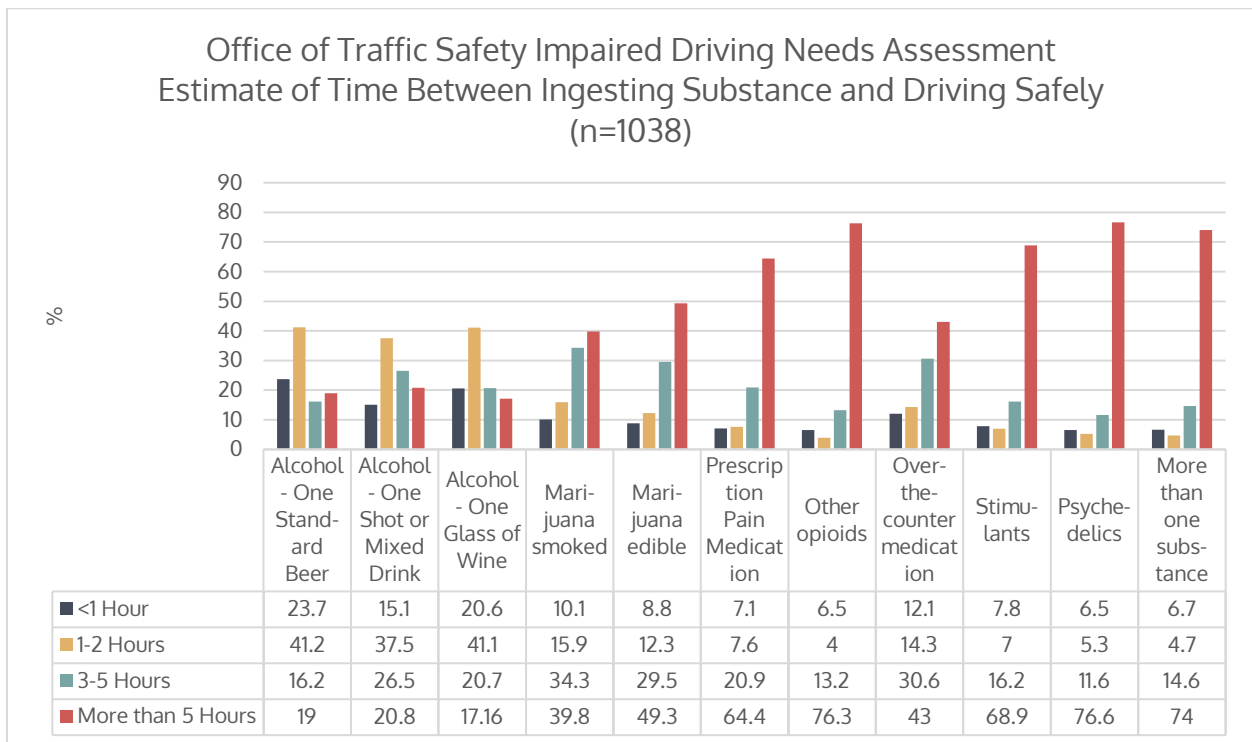
The options included:

- Alcohol
- Marijuana (smoked)
- Marijuana in edible form
- Prescription Pain Medications
- Other Opioids
- Over-the-counter medications
- Stimulants
- Psychedelics
- More than one substance
- All of these
- None of these

The majority of respondents throughout the State of Nevada (84%) reported that “all of the above” substances interfered with a person’s ability to safely drive a vehicle. The least commonly identified substance was over-the-counter medications (47.6%).

OTS Needs Assessment Survey									
Which Substances Cause Impairment?									
	JTNN	FCC	PACE	NyECC	PACT	HCC	PCC	CCC	PDC
“All of the Above”	92.6	93.2	78.2	83.7	75.2	75.8	82.3	91.9	93.4

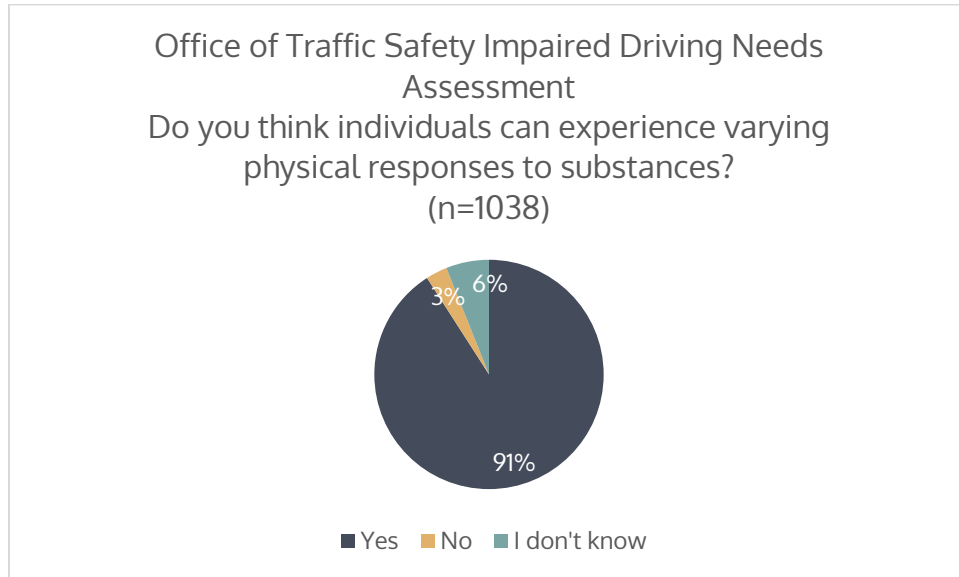
Q4 How soon after ingesting one typical unit of the following substances is it safe to operate a motor vehicle?



People appear to believe that one standard unit of alcohol has less of an effect on driving than other substances based on their estimations of how much time should elapse between ingestion and driving (i.e., other substances require longer wait times before driving than alcohol). In general, most survey respondents believe that a person is safe to drive within 2 hours of ingesting a standard unit of alcohol:

OTS Impaired Driving Needs Assessment Survey		
Percentage of Respondents Reporting a Person Should Wait 2 Hours or Less Between Ingesting Alcohol and Driving		
Alcohol – One standard Beer	Alcohol – One Shot or Mixed Drink	Alcohol – One Glass of Wine
64.9%	52.9%	61.7%

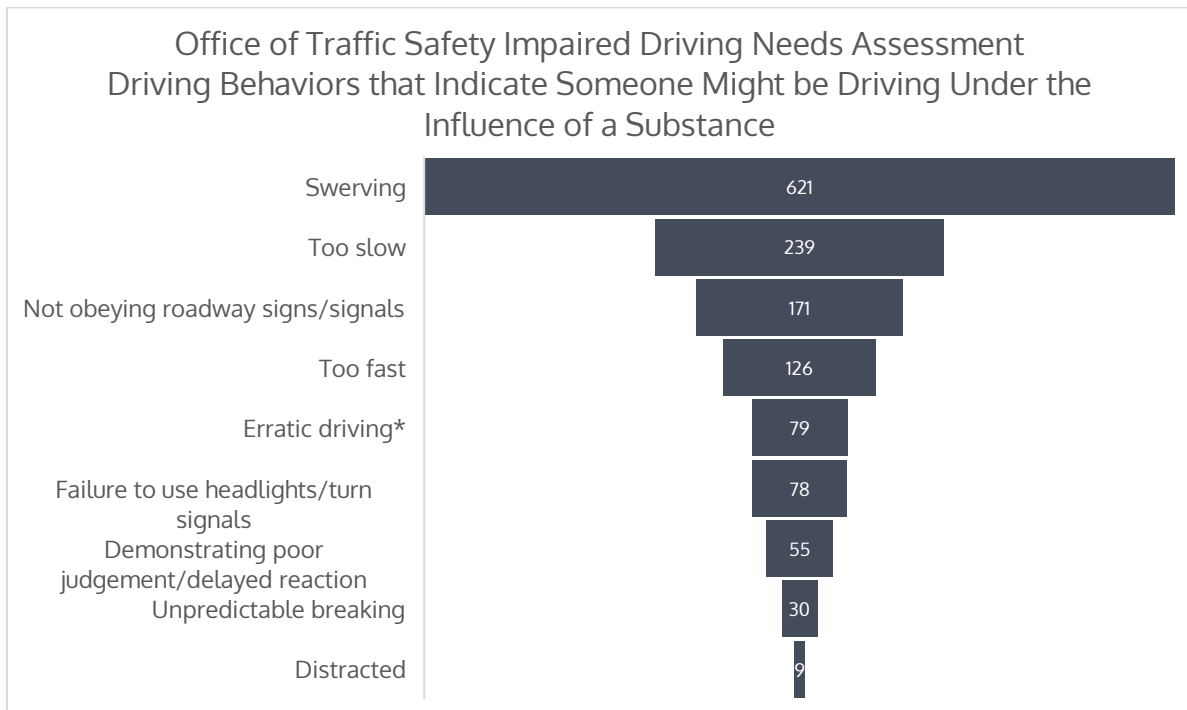
Q5 Do you think individuals can experience varying physical responses to substances, for example, even if two people have the same blood alcohol content, their motor skills and reaction times might be noticeably different?



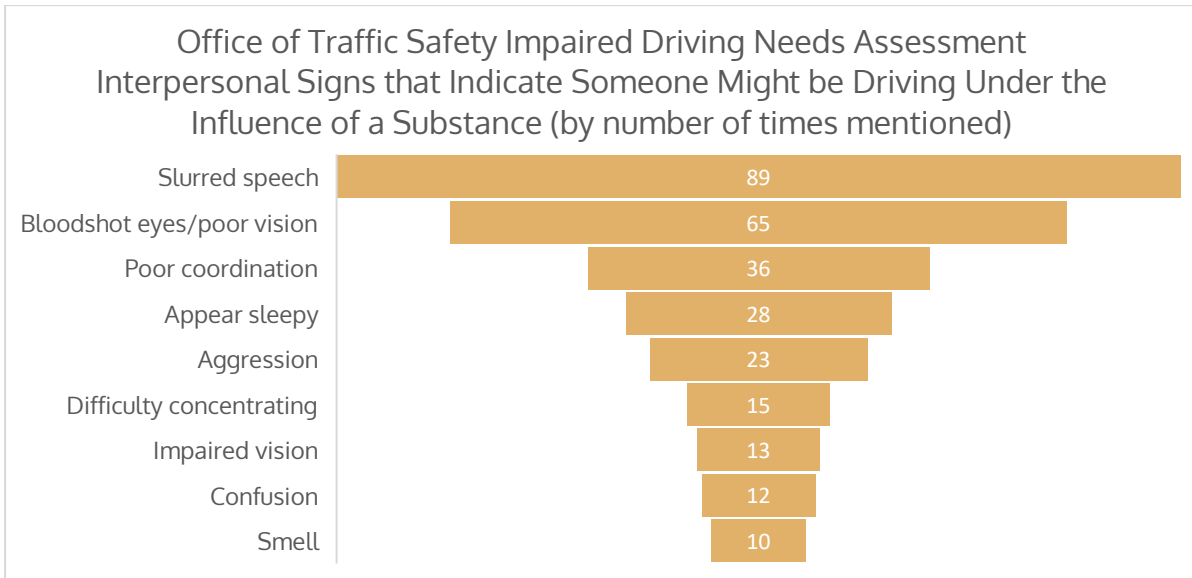
The vast majority of survey respondents believe individuals can experience varying physical responses to substances.

Q9. What are some signs that someone might be driving under the influence of a substance?

Survey respondents' answers fell into two categories: observable driving behaviors and interpersonal signs. If a Survey Respondent provided multiple answers, they were coded separately. See below:



*A surprising number of Survey Respondents mentioned "erratic driving" specifically. Answers such as "crazy driving" were included in the "erratic" category. From the context of the Respondents' answers, "erratic" can be interpreted as unpredictable.



Familiarity with Categories and Consequences of Impaired Driving

Q6 How familiar are you with the consequences of being found guilty of Driving Under the Influence (DUI)? (Response options: very unfamiliar, unfamiliar, neutral, basic understanding but could learn more, familiar, or very familiar)

37.2% of survey respondents throughout the State of Nevada answered that they have a basic understanding of the consequences of being found guilty of Driving Under the Influence, but could learn more. 38.4% responded that they are “familiar” or “very familiar.”

OTS Needs Assessment Survey									
How familiar are you with the consequences of being found guilty of Driving Under the Influence (DUI)?									
	JTNN	FCC	PACE	NyECC	PACT	HCC	PCC	CCC	PDC
“I have a basic understanding of the consequences of being found guilty of Driving Under the Influence, but could learn more.”	64.8	40.8	37.1	44.4	31.7	23.3	35	40.5	34.4
“I am ‘familiar’ or ‘very familiar’ with the consequences.”	35.1	37.9	40.5	22.9	41	43.1	46.2	36.5	42.2

Q7 Can a person driving under the influence of a substance other than alcohol (e.g., marijuana, prescription pain medications, etc.) be charged with a DUI?

86% of survey respondents throughout the State of Nevada believe that a person driving under the influence of a substance other than alcohol can be charged with a DUI.

OTS Needs Assessment Survey									
Can a person driving under the influence of a substance other than alcohol be charged with a DUI?									
	JTNN	FCC	PACE	NyECC	PACT	HCC	PCC	CCC	PDC
"Yes"	90.7	93.2	87.2	77	89.9	87.3	89	90.5	67.8

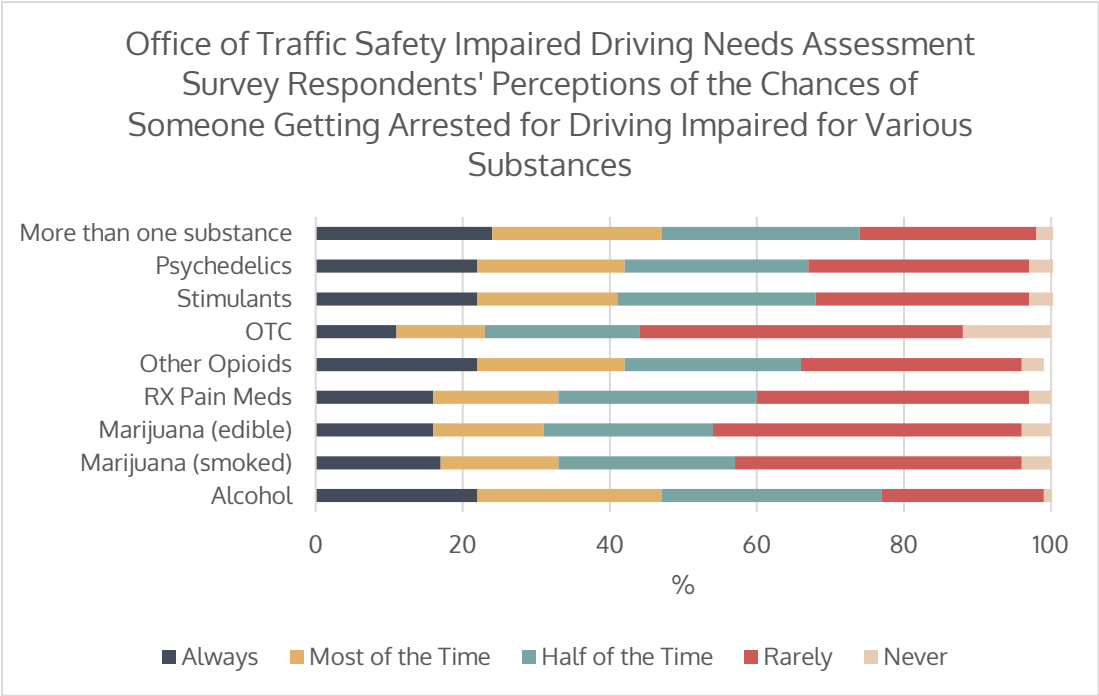
Q8. Are the consequences of receiving a DUI for a legal substance other than alcohol similar to those of an alcohol DUI in terms of loss of license, fees, and fines, etc.? (Response options included: Yes, they are the same, No, they are different, and I don't know)

Just over half of survey respondents throughout the State of Nevada (55%) believe that the consequences of receiving a DUI for a legal substance other than alcohol are similar to those of an alcohol DUI. 36% were unsure.

OTS Needs Assessment Survey									
Are the consequences of receiving a DUI for a legal substance other than alcohol similar to those of an alcohol DUI in terms of loss of license, fees, and fines, etc.?									
	JTNN	FCC	PACE	NyECC	PACT	HCC	PCC	CCC	PDC
"Same"	54.8	60.2	55.2	43.6	54.7	55.9	54.9	50	65.6
"Unsure"	35.9	32	28.4	49.6	30.2	39.8	38.9	43.2	27.8

Impressions of Existing Enforcement Efforts

Q10. What do you think the chances are of someone getting arrested for driving impaired if they drive too soon after using the following substances?



Survey respondents throughout the State of Nevada offered surprisingly consistent responses with respect to their perceptions of whether or not someone might be arrested for driving impaired after using a variety of substances. In general, respondents do not believe people are arrested more than half the time for any substance. They tend to believe that people who use alcohol are slightly more likely to be arrested than those who use other substances. Respondents appear to believe that marijuana (smoked and edible), prescription pain meds, and over-the-counter medications are the least likely substances to cause one’s arrest.

OTS Needs Assessment Survey									
What do you think the chances are of someone getting arrested for driving impaired if they drive too soon after using the following substances? "Always" or "Most of the Time" Responses Combined									
	JTNN	FCC	PACE	NyECC	PACT	HCC	PCC	CCC	PDC
More than one substance	37	37.3	64.3	43.7	49.6	51.8	31.9	60.3	58.4
Psychedelics	35.5	30.7	43.9	36.6	46.4	54.5	27.1	50.7	56.8
Stimulants	32.4	31.7	49.1	36.1	47.1	47.8	26.2	50	56.7
OTC	15	13.7	20	19.3	32.4	32.7	16.2	39.7	30.3
Other Opioids	34.3	29.7	45.6	41.4	46.4	50.9	30	49.3	58.4
RX Pain Meds	25.2	19.6	36	29.6	37.1	40.7	23.9	42.5	47.2
Marijuana (edible)	22.9	20.8	33.9	21.5	35.5	39.6	19.9	42.5	43.2
Marijuana (smoked)	24.5	19.8	35.7	24.8	35.3	39.3	22	43.8	48.3
Alcohol	33.3	31.4	51.7	38.1	52.1	47.8	32.6	54.8	65.6

Q11. In the past 30 days, have you read, seen, or heard any messages about impaired driving?

Just over half of respondents throughout the State of Nevada (52%) reported reading, seeing, or hearing a message about impaired driving in the past 30 days.

OTS Needs Assessment Survey									
In the past 30 days, have you read, seen, or heard any messages about impaired driving?									
	JTNN	FCC	PACE	NyECC	PACT	HCC	PCC	CCC	PDC
"Yes"	54.2	50.5	49.1	45.2	60	50.4	55.6	40.5	60.7

Q12. If yes, please describe the most recent message you saw, read, or heard. What was the message? Where did you see it?

Survey respondents most frequently remembered seeing messages through the following locations (in order of frequency):

1. Billboards
2. Television
3. News articles
4. Social media

Survey respondents recalled the content of messages as follows (in order of frequency):

1. "Don't drink and drive" or "Drink responsibly" in general
2. "Drive High, Get a DUI"
3. "Buzzed Driving is Drunk Driving"
4. "Drive Sober or Get Pulled Over"
5. Encouragement to utilize a designated driver

Individual survey respondents recalled seeing other messages that tended to be either catchy, "Topsy Driving is Drunk Driving," or emotionally impactful (displaying families at a funeral or body bags and statistics).

Q13. Do you believe other people driving while impaired in your community is a threat to your personal safety or the safety of your family?

91% of survey respondents throughout the State of Nevada believe impaired drivers pose a threat to their personal safety.

OTS Needs Assessment Survey									
Do you believe other people driving while impaired in your community is a threat to your personal safety or the safety of your family?									
	JTNN	FCC	PACE	NyECC	PACT	HCC	PCC	CCC	PDC
"Yes"	95	97	90.8	80.6	88.6	89.6	93.2	94.3	94.3

This question offered survey respondents an opportunity to "describe the threat." It is noteworthy that over half of the respondents took the time to write in a description to a seemingly obvious question. Predictably, their responses described the increased risk of accidents (vehicle to vehicle, vehicle to pedestrian, vehicle to bicycle) when a driver is impaired. They discussed impaired drivers' slow reaction times, impaired judgment, and aggressive driving as contributing factors. The following are representative statements:

I can control my actions and reactions most of the time while driving, but I can't predict an unknown person's lack of reaction or responsibility.

Sharing the road with an impaired driver is a great danger to me and my family.

Makes me feel unsafe to walk around with my kids or even driving around. I can never trust other drivers.

I can't walk, run or even be on a sidewalk without the risk.

The passion that many survey respondents wrote with demonstrates the depth of their concern about this issue.

Contributing and Mitigating Factors Related to Impaired Driving

Q14. What barriers exist in your community that might lead to people driving while impaired?

Survey respondents throughout the State of Nevada selected the following most common barriers in their communities (in order of frequency):

1. Addiction.
2. No fear of getting caught.
3. Lack of access to public transportation.
4. Lack of consideration for potential consequences to others.
5. Lack of access to taxis or ride-sharing services.
6. Failure to plan ahead.

OTS Needs Assessment Survey What barriers exist in your community that might lead to people driving while impaired? (Top 3 in Each Coalition Service Area)					
	JTNN	FCC	PACE	NyECC	
1	Lack of consideration for potential consequences to others.	Lack of access to public transportation	Addiction	Lack of access to public transportation	
2	Addiction	Lack of access to ride-sharing	No fear of getting caught	No fear of getting caught	
3	Failure to plan ahead.	Addiction	Lack of access to ride-sharing	Addiction	
	PACT	HCC	PCC	CCC	PDC
1	No fear of getting caught	Lack of access to public transportation	Lack of consideration for potential consequences to others	Lack of access to public transportation	Lack of access to public transportation
2	Addiction	Addiction	Addiction	Failure to plan ahead	No fear of getting caught
3	Lack of consideration for potential consequences to others	No fear of getting caught	No fear of getting caught	Lack of access to ride-sharing	Addiction

This question allowed respondents to write in an “other” response if they so wished. The most common responses included:

1. Law enforcement either doesn’t care to respond or there are not enough officers to respond.
2. Substances impair decision-making capacity.
3. Communities have a “party” atmosphere that doesn’t frown on DUI.
4. “Just down the street” mentality.
5. Inconvenience of leaving a vehicle behind.
6. Not recognizing impairment.

Q15. What should a person do if they see someone who might be driving impaired?

The vast majority of survey respondents throughout the State of Nevada answered that a person should call law enforcement if they witness someone driving in such a way that suggests they may be driving impaired. The following specific law enforcement contacts were mentioned:

1. 911.
2. Non-emergency dispatch.
3. Nevada Highway Patrol.
4. Police.
5. Sheriff.
6. Tip Line.

It is noteworthy that many survey respondents recommend minding your own business and keeping away from the driver, as follows:

In my community, keep your mouth shut!

I just take a different route home and avoid them.

A large number of survey respondents emphasized personal safety (not confronting another driver or steering the vehicle away from the driver).

Some survey respondents offered their thoughts about calling law enforcement:

Try to call it in if it is safe, so just be ready to be treated dismissively when reporting

NO clue - I've called it in with no repercussions, so it doesn't seem to matter to law enforcement

The person should safely note their vehicle details and location, then call 911 to report it without confronting them.

I don't know the right answer. Is it appropriate to 911 to report it? The person may be impaired or experiencing a medical emergency; does it make more sense to call 311 to be mindful of how busy law enforcement is.

Call authorities and report it but I know you have to be willing to sign off that you witnessed it and possibly go to court. It's not very appealing

Q16. How comfortable would you be telling a friend or loved one that they should not drive?

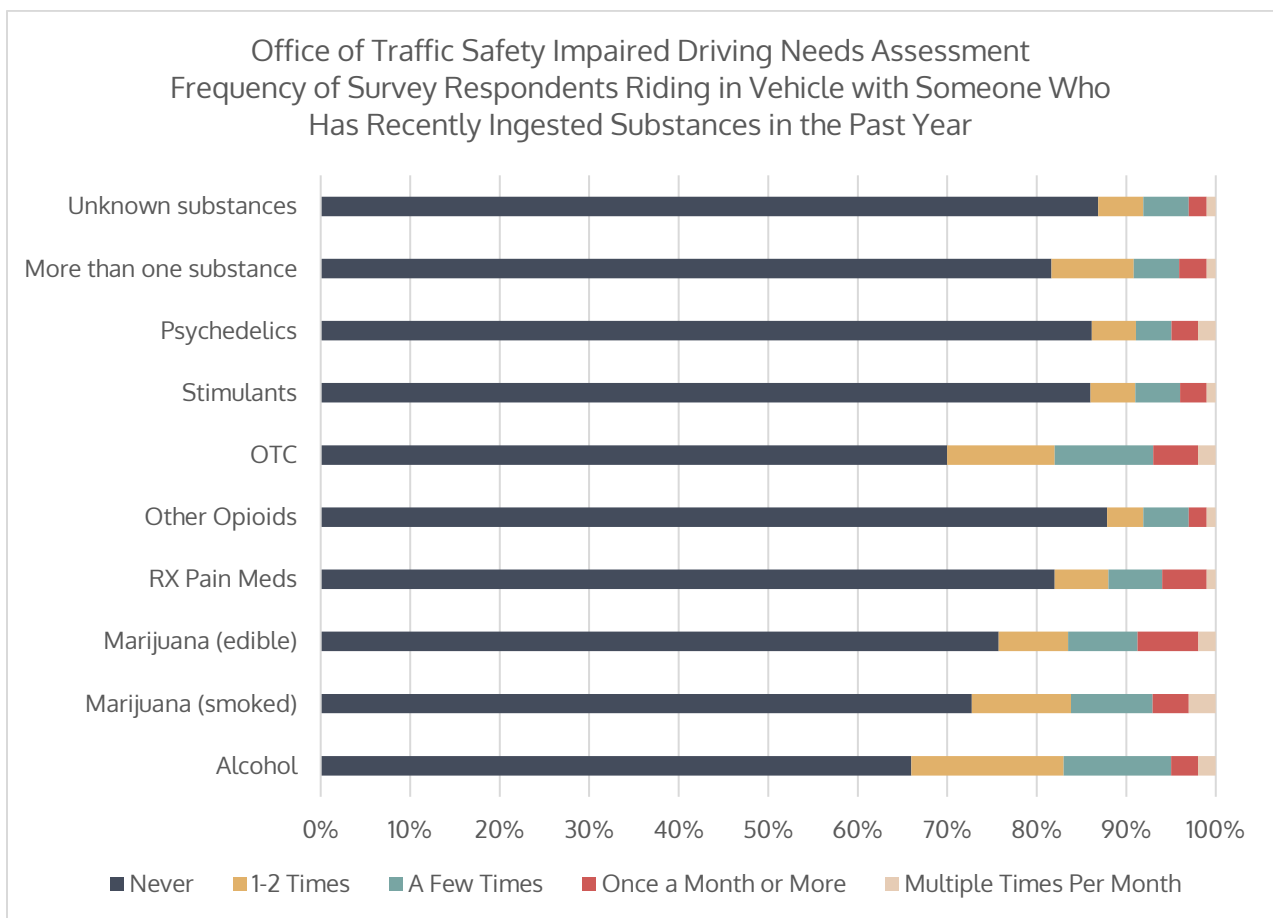
The vast majority of survey respondents throughout the State of Nevada (84%) report they would be "very" or "totally" comfortable telling a friend or loved one that they should not drive.

Q17. How comfortable would you be telling a stranger that they should not drive?

Conversely, just 46% of survey respondents throughout the State of Nevada reported they would be “very” or “totally” comfortable telling a stranger they should not drive.

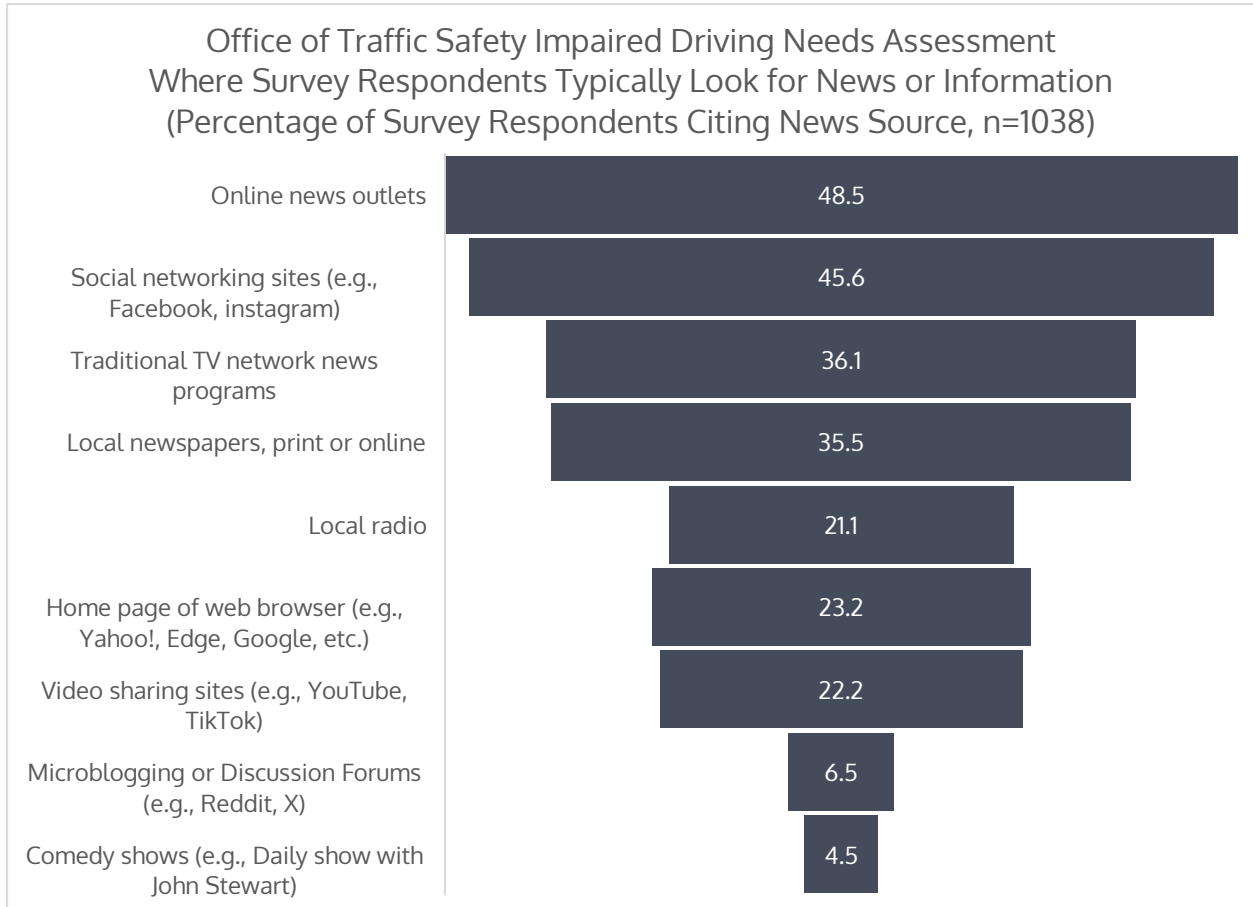
Q18. In the past year, how many times have you knowingly ridden in a vehicle with a driver who had recently ingested the following substances?

The majority of survey respondents throughout the State of Nevada have never knowingly ridden in a vehicle with a driver who had recently ingested any substance in the past year. Alcohol and over-the-counter medications were the most common.



Recommendations for Public Service Campaign

Q19. Where do you typically look for news or information?



OTS Needs Assessment Survey Where do you typically look for news or information? (Top 3 in Each Coalition Service Area)					
	JTNN	FCC	PACE	NyECC	
1	Online news outlets	Online news outlets	Online news outlets	Social networking sites	
2	Social networking sites	Social networking sites	Social networking sites	Local news	
3	Local news	Traditional TV network news	Local news	Traditional TV network news	
	PACT	HCC	PCC	CCC	PDC
1	Online news outlets	Online news outlets	Local news	Online news outlets	Social networking sites
2	Traditional TV network news	Social networking sites	Online news outlets	Traditional TV network news	Local news
3	Social networking sites	Traditional TV network news	Traditional TV network news	Social networking sites	Traditional TV network news

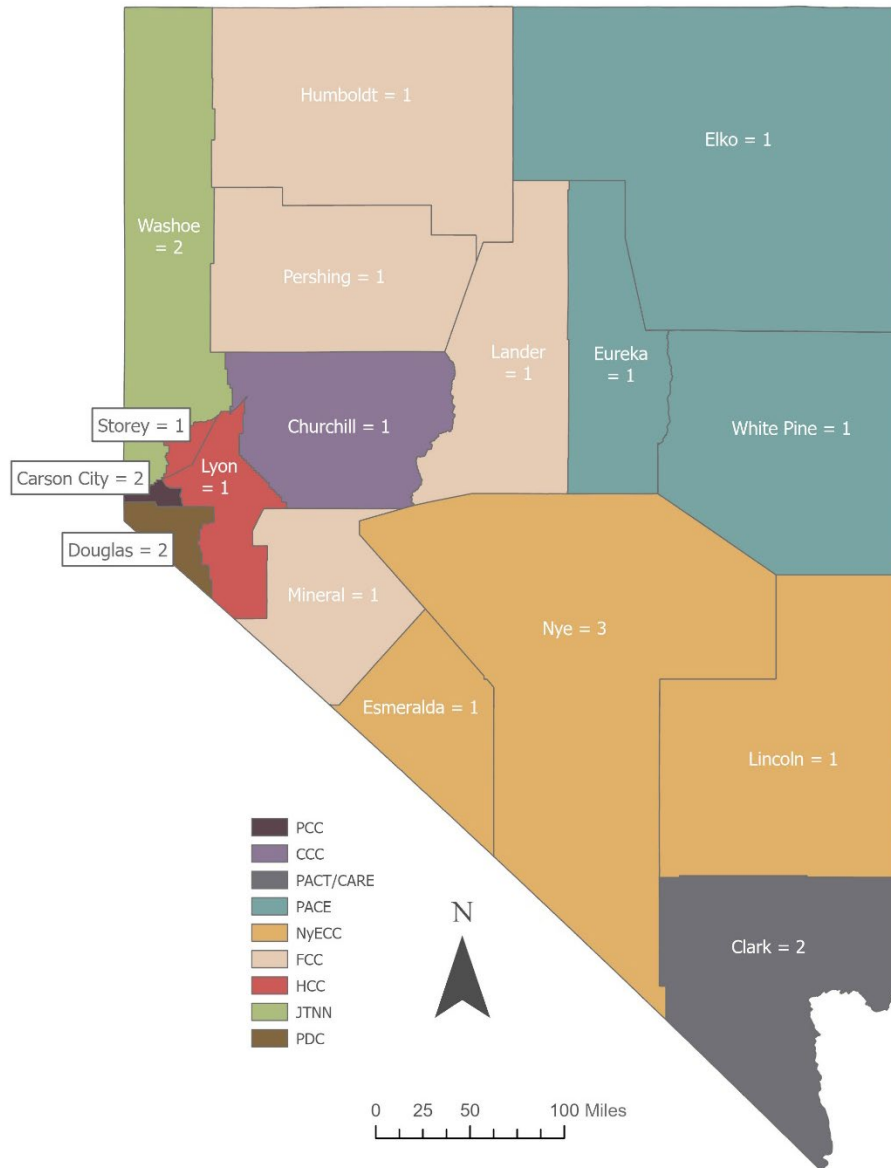
Q20. Please share any recommendations you might have for the State of Nevada and/or substance misuse prevention organizations throughout the State to educate the public about the dangers and consequences of driving impaired.

The most common recommendations (in order of frequency) included:

1. Increase law enforcement and detection (especially for marijuana).
2. Increase legal consequences, including for over-serving.
3. Increase public information and education, through initial and ongoing driver’s education, media, and advertising, to include:
 - a. Information about all substances that can lead to impairment
 - b. legal consequences
 - c. emotional/life consequences to self and others
 - d. messages that are short, consistent, relatable, and culturally relevant
4. Increase youth education and prevention.
5. Increase access to rideshare, “safe ride,” and public transportation.

Focus Groups

PACT and its coalition partners were able to hold at least one focus group in each county, as follows:



Results from the focus groups are reported in aggregate (all counties together) unless otherwise noted.

Definitions of Impaired Driving

Focus groups were nearly evenly divided between broad and narrow definitions of “impaired driving”:

Broad Definition

Anything that affects a person's vision, reflexes, ability to follow the laws, perceptions, or motor skills. This can include distractions (kids, pets, cell phones), things that alter brain chemistry (alcohol, legal or illegal drugs, medications, lack of sleep, medical conditions, or energy drinks), or mental status (stress, grief, or panic).

Narrow Definition

Substances that alter brain chemistry and thereby impact a person's vision, reflexes, ability to follow the laws, perceptions, or motor skills.

It is noteworthy that participants offered a broad view of "substances" in both definitions. They included legal and illegal substances and were not narrowly focused on alcohol when forming their definitions. As the focus groups moved into other topics, participants' responses tended to center on impaired driving due to alcohol consumption.

Focus group participants also offered an expanded view of "vehicles." In addition to typical motor vehicles, they discussed impaired driving of tractors, boats, and bicycles.

Factors Contributing to Impaired Driving

The following patterns emerged from the focus group discussions of what factors contribute to impaired driving:

1. People not "knowing their limits" or recognizing at what point in substance use (how much ingested or how long since ingestion) their ability to drive safely might be impaired.
2. People who don't have access, or don't believe they have access, to alternative transportation. Unsurprisingly, rural counties identified lack of access to alternative transportation more frequently than urban counties.
3. People experiencing a sense of emergency about getting from one point to another and how that factors into their decision to drive (e.g., uncomfortable or unsafe in a situation, stranded, conflicts in relationships, etc.).
4. Perceptions of "distance and time". There were two opposing schools of thought about this finding: "It's not too far," and "It's too inconvenient".

It's Not Too Far

Focus group participants discussed how some drivers think the distance from where they ingest substances (a bar, for example) to their next destination (home, for example) is not too far, and it will not take much time to get there. In this sense, a short distance and a small amount of time may create a false sense of security.

It's Too Inconvenient

In this alternate analysis of distance and time, focus group participants discussed how drivers might think it will be too inconvenient to leave their vehicle where they are when they are ingesting a substance (a bar for example), get a ride to where they need to be (home for example), perhaps get a second ride to work the next day, and then get a third ride back to where they left their vehicle. In this sense, a lot of time and long distances create barriers to making a choice not to drive. This is particularly true in rural areas.

Recommended Approach for Public Service Announcements

Focus group participants identified the following approaches the State of Nevada and substance misuse prevention coalitions should take to reduce impaired driving:

1. Increase Education
 - a. Visual representations of "how much is too much." Participants recommended short videos set in a bar demonstrating impairment for people of different sizes and over different time frames.
 - b. Education showing emotional consequences of impaired driving accident (mangled car, funeral, etc.). They think these educational efforts should have an "Is it worth it?" perspective. Several participants specifically mentioned the "Every 15 Minutes" presentations. This program was obviously memorable to Focus Group Participants, but literature reviews do not prove these types of presentations are effective in changing behaviors.
 - c. Education showing legal and financial consequences of impaired driving ticket (e.g., loss of job, loss of license, fees and fines, attorney fees, increased insurance rates, etc.).
 - d. Advertising at alcohol and marijuana outlets (e.g., casinos and dispensaries) to include messages about transportation options,

substance misuse treatment options, and “buzzed” vs. impaired information (“Do you feel ok to drive?”). Options included messaging on the back of bathroom stalls and stickers on water bottles to be distributed by bartenders.

- e. Require driver’s education to obtain a driver’s license, which includes a comprehensive section covering impaired driving, and then require people renewing licenses to review educational materials about impaired driving.
- f. Obtain input from community, especially youth, in creating messaging. For example, host an art competition for a billboard campaign.

2. Increase Access to Transportation

- a. Volunteer or paid “safe drivers,” especially during special events.
- b. Vouchers for free ride share options (i.e., Lyft, Uber, etc.) or public transportation options (where available) to be distributed by bartenders.
- c. Incentives for designated drivers (e.g., free food, gift cards, etc.).
- d. Buses to and from special events where substances are available.

3. Increased Law Enforcement

- a. More officers on patrol.
- b. More DUI checkpoints.
- c. Easy to remember, non-emergency call lines.

4. Elements of PSAs

- a. Famous spokespeople, especially those who have been impacted by impaired driving in some way.
- b. A “mascot” of some sort, like a talking dog.
- c. Local, relevant voices, people, images, and stats, for example, “Small Town, Big Consequences.”

- d. Funny, shocking, and/or emotional messaging.
 - e. Use a catchy "hook" at the beginning. Messages should be short, direct, and meaningful. Example cited was, "Little Lungs in a Great Big World."
 - f. Include all substances that might cause impairment (e.g., alcohol, marijuana, prescription medications, over-the-counter medications, etc.).
5. PSA Distribution
- a. Social media (e.g., TikTok, Facebook, Instagram, Spotify, Pandora, Apple Music, Sirius).
 - b. Traditional media (e.g., billboards, local radio, television).
 - c. Existing organizations (e.g., youth health classes, emergency medical services, barber shops/salons, K-12 schools, colleges, community-based organization newsletters, large employers, chamber of commerce, HOPE Squad, Northern Nevada Confederation of Clubs, Northern Nevada DUI Taskforce, gas pumps, etc.).
6. Focus on Youth
- a. Encouraging parents to set a good example.
 - b. Encouraging families to establish code words for youth to call parents for a ride with limited consequences.
 - c. Providing comprehensive education in schools, especially health classes.

Conclusions and Recommendations

1. The focus groups and surveys were successfully administered. These data collection activities resulted in consistent patterns in responses.
2. The potential hazards of impaired driving cause residents throughout the State of Nevada a great deal of concern.
3. The results have implications for policies, public education, law enforcement, and substance abuse treatment.

4. Focus group participants and survey respondents offered the following input:
 - a. A sophisticated understanding and definitions of “impaired driving.”
 - b. A wide range of local factors that contribute to impaired driving in their communities (e.g., distance and time, lack of access to alternative transportation options, too few law enforcement officers, etc.).
 - c. Recommendations for where the State of Nevada might focus efforts related to education and policy change.

The following sections discuss public perceptions of where the State of Nevada might intervene with various activities along the typical trajectory of a person who ingests substances. Research is provided as to the effectiveness of the strategies recommended by Focus Group Participants and Survey Respondents. Readers of this assessment may wish to keep in mind the following recommendations from the NHTSA Countermeasures:

Deterrence: Enact, publicize, enforce, and adjudicate laws prohibiting impaired driving so people choose not to drive impaired.

Prevention: Reduce drinking and keep impaired drivers from driving.

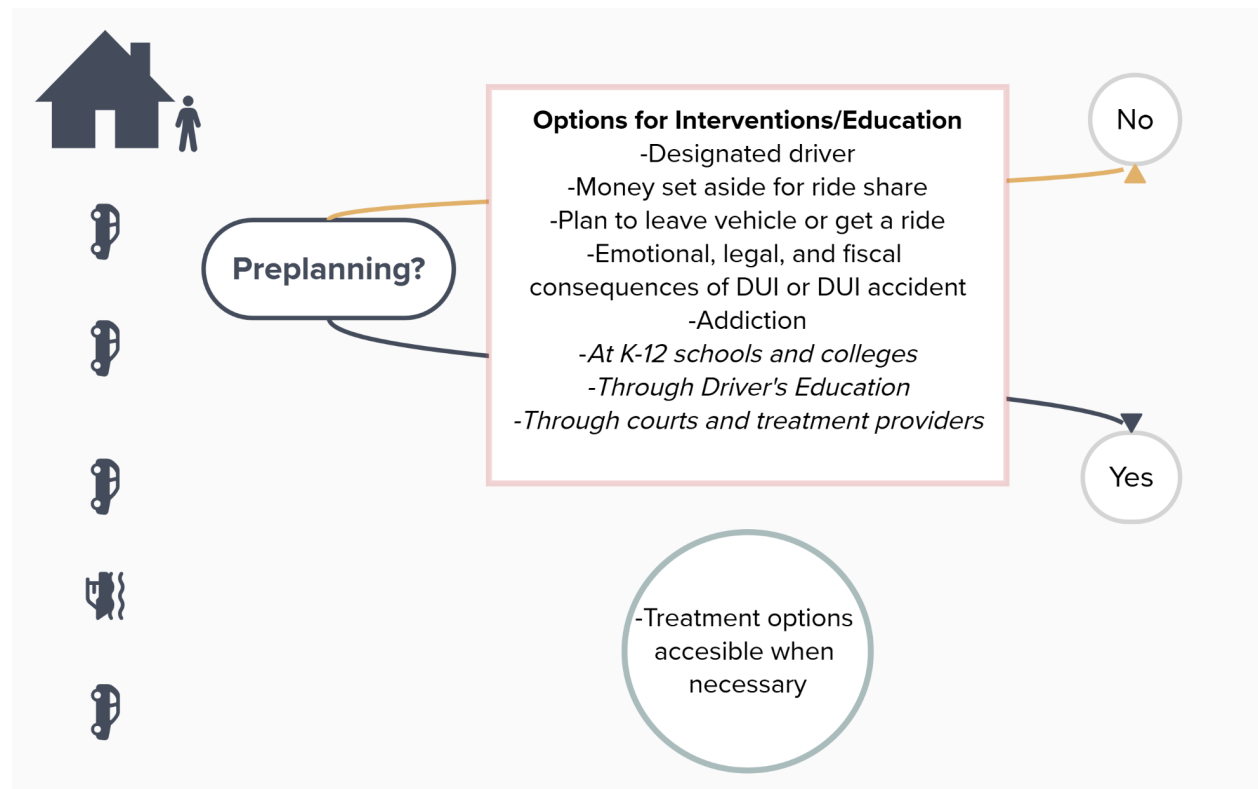
Communications and Outreach: Inform the public of the dangers of impaired driving and establish positive social norms that make driving while impaired unacceptable.

Alcohol [and other drug] treatment: Reduce alcohol dependency or addiction among drivers.

Educational opportunities/topics are in pink squares. Policy considerations are in gray circles. Each of these educational opportunities aligns with the Nevada Impaired Driving Program Plan 2023 (NIDPP 2023) countermeasure strategy of “Communications.”

Coalition partners will work with the State of Nevada to determine the best approaches to address impaired driving both statewide and within coalition service areas. Coalition partners are well-acquainted with the Community Tool Box Stages of Community Readiness (see Community Tool Box in Sources). They will likely utilize this model to select evidence-based approaches that meet their specific needs.

Intervention Opportunity #1: Preplanning



What the research says about Preplanning

1. Designated Drivers

The NHTSA Countermeasures have this to say about the concept of "designated drivers" (paraphrased):

- Designated drivers can be formal (in the form of someone who is identified by drinking establishments and provided free soft drinks or water) or informal.
- The concept has been questioned on two grounds. First, designated drivers still often drink alcohol, perhaps just less. Second, the accessibility of a designated driver may encourage others to consume more alcohol.

There is no evidence to prove that designated driving programs are effective in reducing alcohol-related crashes.

2. Ride-Share/Public Transportation

This topic aligns with the NIDPP 2023 4.2 “promote transportation alternatives,” which provides discount coupons during typically high-DUI times of year. The plan indicates that ridesharing opportunities are encouraged in rural parts of the state, where public transportation and commercial ride-sharing opportunities are not available. None of the focus group participants or survey respondents mentioned this option.

It is noteworthy that the NHTSA Countermeasures awarded “alternative transportation” with 3 stars (out of 4 possible) in terms of effectiveness. They report that the most successful alternative transportation programs are:

- a. *Accepted by the community.*
- b. *Have high public awareness.*
- c. *Are low cost or free.*
- d. *Are available year-round.*
- e. *Provide rides both to and from drinking [or other] venues.*

3. Knowledge of emotional, legal, and fiscal consequences of DUI or DUI accident

- a. Improved criminal justice system response is a strategy highlighted by Zero Fatalities Nevada (Zero Nevada). The following table, borrowed here from the NIDPP 2023, describes penalties for DUI:

NEVADA DUI PENALTY CHART	
	PENALTIES
FIRST DUI CONVICTION Misdemeanor	<ul style="list-style-type: none"> • two days to six months in jail; • \$400 to \$1,000 dollars in fines; • loss of license for 185 days; • ignition interlock; and • impact panel and online DUI school
SECOND DUI CONVICTION Misdemeanor	<ul style="list-style-type: none"> • 10 days to six months in jail; • \$750 to \$1,000 fine; • loss of license for one year; • impact panel and online DUI school; • ignition interlock; and • dependency evaluation
THIRD DUI CONVICTION Felony	<ul style="list-style-type: none"> • one to six years in prison; • \$2,000 to \$5,000 fine; and • loss of license for three years
DUI CONVICTION AFTER FELONY Felony	<ul style="list-style-type: none"> • two to 15 years in prison; • \$2,000 to \$5,000 fine; and • loss of license for three years

Some Focus Group Participants and Survey Respondents mentioned increasing consistent enforcement, but none mentioned increasing penalties or lowering BAC levels. None seemed aware of alternative sentencing, specialty courts, or other avenues to treatment available to offenders through the criminal justice system.

Sloan, et al, worked to understand the decision to drink and drive using traditional and non-traditional models. Their results are paraphrased below:

People drink and drive in part because they derive more benefit from alcohol consumption and such consumption is more important to their social lives. Higher rates of alcohol consumption in turn lead to greater frequency of driving while intoxicated. Some but not all of these determinants of drinking and driving frequency are amenable to intervention by policymakers. Increased excise taxes on alcoholic beverages reduce alcohol consumption, and restrictions on availability, such as zoning laws and restrictions on sale of alcohol beverages, decrease use. Policymakers can increase enforcement and penalties for DWI to raise the private cost of drinking and driving.

Because drinker-drivers are if anything more, not less, knowledgeable about DWI laws, general campaigns to inform the public of the laws regarding DWI are unlikely to be effective.

The distinction between sophisticates, individuals who can anticipate their future self-control problems and naifs, who cannot or do not, is useful. A sophisticate could presumably employ a self-control device to assure that s/he does not alter his or her decision to drink in moderation on the spur of the moment.

...Persons can predict self-control problems, but cannot fully implement self-control devices on their own to prevent driving under the influence...suggests a role for compulsory self-control devices such as ignition interlock or SCRAM devices.

The probability of being arrested for DWI [among these study participants] was .73 percent, far below the respondents' mean subjective probability of nearly 10 percent.

Overall, our findings support the view that driving while intoxicated partially reflects lack of self control. Lack of self-control limits the potential effectiveness of just getting tough on drinker-drivers by increasing patrolling and legislating higher criminal sanctions except to the extent that such public policies increase incapacitation of such drivers. But as already noted, incapacitation is effective as long as individuals are incapacitated, but not subsequently. While there appears to be a role for therapeutic interventions, these interventions should not be narrowly focused on reducing or eliminating alcohol consumption, but also on lack of self-control as a cause of drinking and driving. In sum, there is no singlet magic bullet. Rather recognizing that drinking and driving results from multiple causes, there are multiple solutions. As we learn more about attributes of offenders, it should be possible to better personalize interventions.

- b. Youth Education. Many Focus Group Participants and Survey Respondents mentioned the "Every 15 Minutes" program as a way to educate young people about the consequences of driving impaired. The NHTSA Countermeasures did not find evidence that this approach is successful in changing behaviors. Alternatively,

Education programs that train young adults on how to resist peer pressure and enhance informed decision-making skills may be the most successful approaches (Botvin & Griffin, 2007; Kelly-Weeder et al., 2011)

Many prevention programs aimed at youth (e.g., Too Good for Drugs, Catch My Breath, This is Not About Drugs, Positive Action, etc.), are centered on goal setting, decision making, and identifying and dealing with emotions.

Reducing alcohol use among youth in general is an evidence-based approach to reducing instances of youth DUI. Zhang, et al, found that adolescent peer alcohol use had a significant effect on whether a youth chose to drink and drive.

4. Addiction/Treatment

The interplay between addiction and driving impaired is interesting. There are conflicting statistics related to the number of people in the US and/or Nevada who are addicted to any substance and who also obtain DUIs (one or multiple).

Modern research describes Alcohol Use Disorder as a spectrum, from “mild” to “severe.” People who occasionally over-drink may fall on the “mild” end of the spectrum and would not fit most people’s understanding of “addiction.” (Source: NIAAA). Some sources attribute the bulk of DUIs to “problem” drinkers rather than to those drivers who are addicted.



This may be an area for the State of Nevada to improve and/or share data.

Regardless, access to drug problem assessment and treatment, together with screening and brief interventions, are considered to be highly effective strategies for behavior change by the NHTSA Countermeasures.

5. Healthy and Safety Public Service Announcements in General

None of the Focus Group Participants or Survey Respondents noted seeing the “Don’t Kill a Dream” public service announcements sponsored by Zero Nevada.

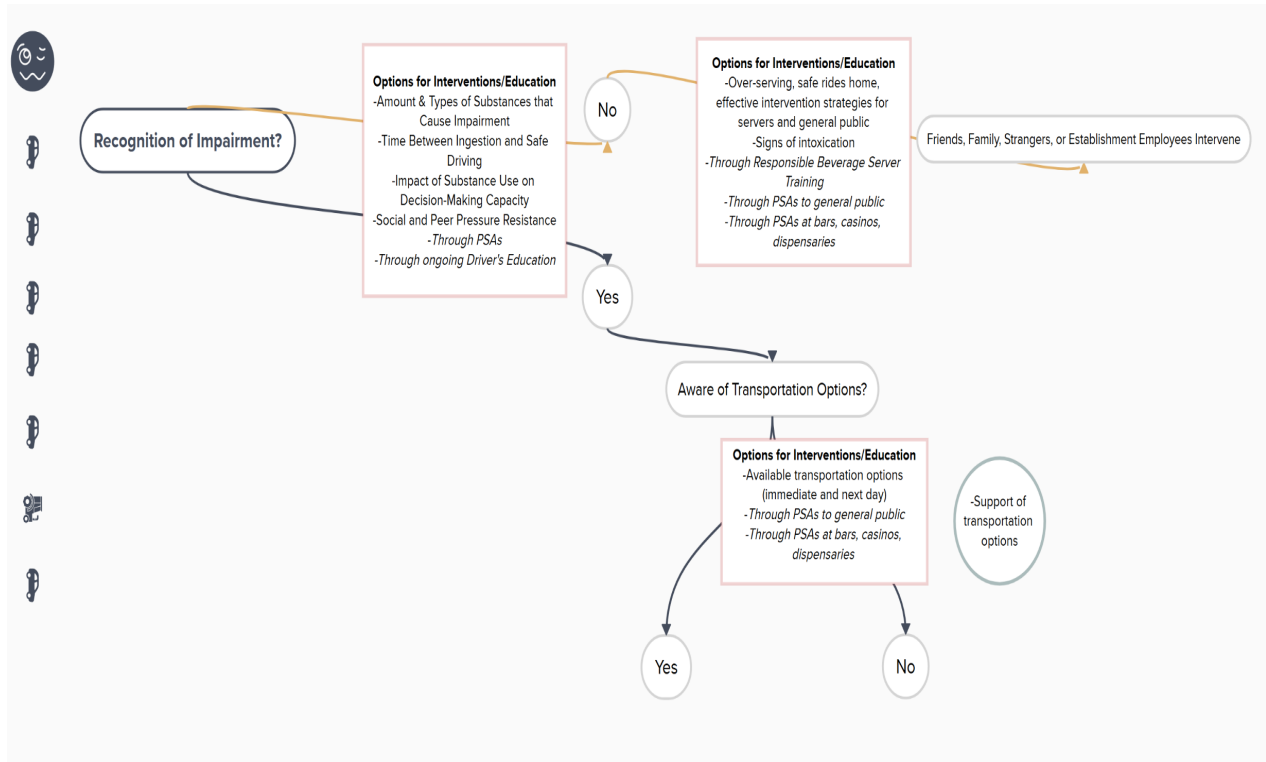
The NHTS Countermeasures recommend that public service announcements (PSAs) are just one part of an overall comprehensive strategy. They recommend the following when considering the implementation of an educational campaign:

- a. *Does the audience lack this information? If the audience already knows the information being shared, additional efforts to “raise awareness” about the issue are unlikely to have any effect on behavior.*
- b. *Is the information specific? General safety messages that tell people to “drive safely” or “be alert” are not specific enough to be meaningful to the audience.*
- c. *Is it being used as part of a larger strategy for behavior change? Information alone rarely changes behavior.*

This source also offered following (paraphrased) recommendations:

- a. *Campaigns should be of high-quality and tied to other impaired driving reduction activities.*
- b. *Campaigns should be a part of an overall communication and outreach strategy that supports specific impaired-driving activities, such as enforcement.*
- c. *Use fear-based messaging with caution. Consider all other approaches first, especially in media campaigns targeted at youth.*
- d. *Utilize social norms messaging. [see further discussion of Social Norms Theory below]*
- e. *Reuse same messages across traditional and social media platforms. Use images and videos strategically, time the messages and context appropriately, and collaborate with other agencies to maximize visibility.*

Intervention Opportunity #2: Recognition and Acknowledgement of Impairment, Transportation Options, and Intervention Strategies



What the research says about Recognition and Acknowledgement of Impairment, Awareness and Utilization of Transportation Options, and Safe, Effective Intervention Strategies

1. Amounts and types of substances that cause impairment, including differences in body size and composition. NRS 484C.110 defines the parts per milliliter (urine and blood) that constitute a DUI in the State of Nevada:

	Urine	Blood
	Nanograms	Nanograms
Prohibited substance	per milliliter	per milliliter
(a) Amphetamine	500	100
(b) Cocaine	150	50
(c) Cocaine metabolite	150	50
(d) Heroin	2,000	50
(e) Heroin metabolite:		
(1) Morphine	2,000	50
(2) 6-monoacetyl morphine	10	10
(f) Lysergic acid diethylamide	25	10
(g) Marijuana (only for third- or successive DUIs in a seven-year period)	no urine test, just blood	2
(h) Marijuana metabolite (only for third- or successive DUIs in a seven-year period)	no urine test, just blood	5
(i) Methamphetamine (Meth)	500	100
(j) Phencyclidine	25	10

This topic aligns with NIDPP countermeasure strategies of law enforcement training with respect to identifying and testing for substances, especially in addition to alcohol.

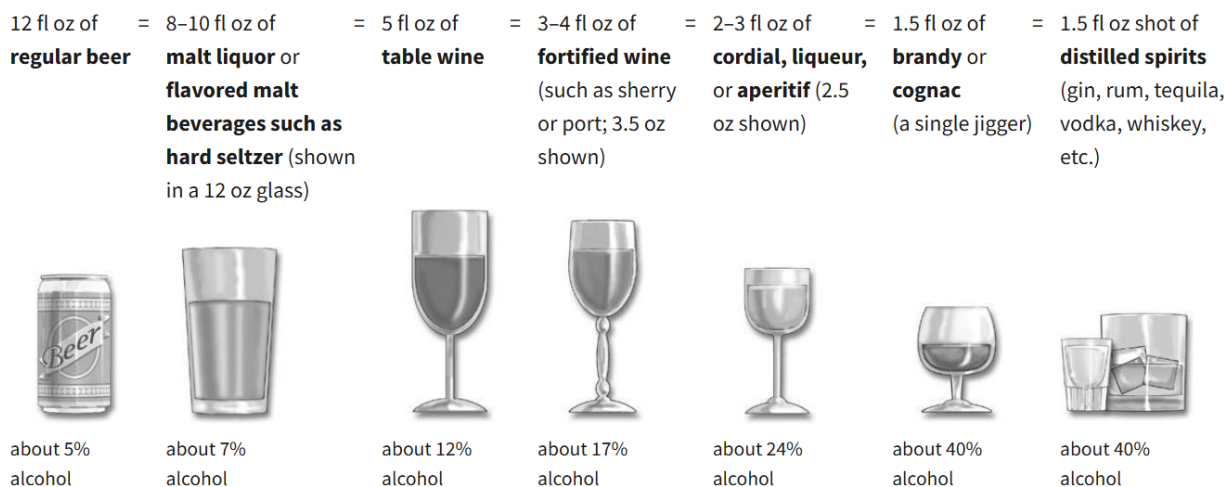
The question then becomes how one might determine the amount of a substance that would result in these levels within their body and the time that it would require to clear the substance.

- a. The National Institute on Alcohol Abuse and Alcoholism provides the following definitions of "how much alcohol is too much":

Binge drinking brings a person's blood alcohol concentration to .08% or more, which typically happens if a woman has 4 or more drinks, or a man has 5 or more drinks, within about 2 hours.

They go on to provide the following graphic depicting "what counts as a drink":

In the United States, a "standard drink" or "alcoholic drink equivalent" is any drink containing 14 grams, or about 0.6 fluid ounces, of "pure" ethanol. As shown in the illustration, this amount is found in 12 ounces of regular beer (with 5% ABV or alc/vol), 5 ounces of table wine (with 12% alc/vol), or 1.5 ounces of 80-proof distilled spirits (with 40% alc/vol).



Each drink shown above represent one U.S. standard drink and has an equivalent amount (0.6 fluid ounces) of "pure" ethanol.

- b. Marijuana. The Colorado Department of Public Health and Environment states that a typical marijuana cigarette in that state contains approximately 60-115 mg of THC. The standard serving size for a marijuana edible is 5-10. Furthermore, consuming THC in edibles will typically have a stronger effect than if smoked.
2. Time between ingestion and safe driving.
 - a. Healthline provides the following "rough guidelines" for time between drinking alcohol and safely operating a vehicle:

A rough guide

Here are some general estimates on how fast the body metabolizes different drinks:

- A small shot of liquor: 1 hour
- A pint of beer: 2 hours
- A large glass of wine: 3 hours

healthline

- b. Marijuana. Marcotte, et al, researched the impact of marijuana use on driving, as paraphrased below:

*Smoking cannabis ad libitum by regular users resulted in simulated driving decrements. However, when experienced users control their own intake, driving impairment cannot be inferred based on THC content of the cigarette, behavioral tolerance, or THC blood concentrations. **Participants' increasing willingness to drive at 1 hour 30 minutes** may indicate a false sense of driving safety. Worse driving performance is evidence for several hours postsmoking in many users but appears to **resolve by 4 hours 30 minutes in most individuals**. Further research is needed on the impact of individual biologic differences, cannabis use history, and administration methods on driving performance.*

Furthermore, The Colorado Department of Public Health and Environment makes the following recommendations:

- Wait at least six hours after smoking marijuana containing less than 35 milligrams THC before driving, biking or performing other safety-sensitive activities.*
- If you've smoked more than 35 mg, you need to wait longer.*
- Wait at least eight hours after eating or drinking marijuana containing less than 18 mg THC before driving, biking or performing other safety-sensitive activities.*
- If you've consumed more than 18 mg, wait longer. If you have consumed alcohol as well, it's crucial to wait even longer. **Using cannabis and alcohol together enhances the effects***

of each, causing increased side effects. And some products sold on the illegal market can even cause intoxicating effects last longer than 12 hours.

- c. Cameron-Burr, et al, make the following conclusion about opioid use and impaired driving:

Illicit use, initiation of therapy, and opioid use in combination with other psychoactive medications are contexts most clearly associated with impairment of driving-related functions and/or operation of a motor vehicle. Clinicians should counsel patients on the risk of impairment when initiating therapy, when co-prescribing opioids and other psychoactive drugs, or when a patient is suspected of having an opioid use disorder.

3. Technology (apps and software). Several forms of technology are available intended to determine “time-until-sober” and support “alcohol management.” These are marketed to the general population and are examined here separately from court-ordered interlock-type devices. Wilson, et al, completed a review of a variety of these technological devices and found that, in general, there were too many errors and too much ambiguity for these to be considered “evidence-based” at this time. They suggested that the ever-evolving market and advances make this an area for ongoing exploration.
4. Social and Peer Pressure. Many sources cite the influence of social and peer pressure as contributors to impaired driving. These include:
 - a. Self-Image (“I am not weak” or “I don’t want others to think I’m weak”).
 - b. Perceptions of Tolerance (“I drink all the time, so my driving skills are not impacted”).
 - c. Social Norms (“Everyone else is going to drive home, I can too”).

The preferred approach to addressing **self-image**, is to support people in cultivating self-respect and confidence. There are a multitude of youth prevention programs that focus on building self-respect and confidence. Other than traditional mental health therapy, it is unclear how a state or community coalition might impact adult self-image. Self-image is a known protective factor against substance misuse in general.

Education about “safe” amounts of alcohol and marijuana use may address **perceptions of tolerance**. This topic is addressed more fully in previous paragraphs.

Substance misuse prevention coalitions are well-versed in **social norms theory**. See this explanation from Boston University School of Public Health:

Social norms are the customary rules of behavior that govern our interactions with others. They are “common standards within a social group regarding socially acceptable or appropriate behavior in particular social situations, the breach of which has social consequences.” Social norms theory suggests that our actions can be influenced by our perceptions, or misperceptions, about how our peers think and act. Importantly, there can be a gap between perceived norms and actual norms. Perceived norms are the beliefs we think our peers have, and the behaviors we think they expect of us. Actual norms are not subjective; they entail what these beliefs genuinely are, and what sort of behaviors are truly prevalent among social groups.

Focus Group Participants and Survey Respondents specifically mentioned the “party atmosphere” in some parts of Nevada (border towns like Wendover or the Las Vegas Strip, etc.). Johnson’s research found small (not statistically significant) improvements in alcohol consumption among visitors to Tijuana, Mexico (which many consider to be a “party town”).

Finally, there are several alcohol-free organizations and social clubs gaining traction in Nevada. Two examples are the Dry Society Social Club (Washoe County) and the Ethos Wellness Club (Clark County). These organizations work to host and support sober events in their respective communities.

5. Understanding the impact of substance use on decision-making capacity. Some people are not capable of understanding the impact of substance use on their driving ability due to pre-existing cognitive deficits or psychological conditions (including substance dependence) (see Verdejo-Garcia, et al). Others, who do not suffer from underlying cognitive deficits or psychological conditions, fail to understand the impact of substance use on their otherwise solid decision-making skills.

Most available research focuses on the impact of alcohol on the brain’s decision-making capacity. Even short-term alcohol use can impact a person’s decision-making

capacity (e.g., impaired memory and reasoning and confusion) (see Cleveland Clinic for a discussion of long- and short-term impact of alcohol on the brain).

Research by Wesley, et al, found a correlation between chronic marijuana use and responsiveness to negative consequences, which may explain a lowered perception of risk for any consequences of driving impaired.

Opioids have a somewhat more complicated relationship with decision-making.

At higher doses, opioid agonists can impair performance on neuropsychological executive function tasks involving coding and logical reasoning. At lower doses opioids can improve cognitive function, and the working hypothesis proposed suggests these effects are driven by opioid-induced reduction of aversive arousal.

(Source: van Stennbergen)

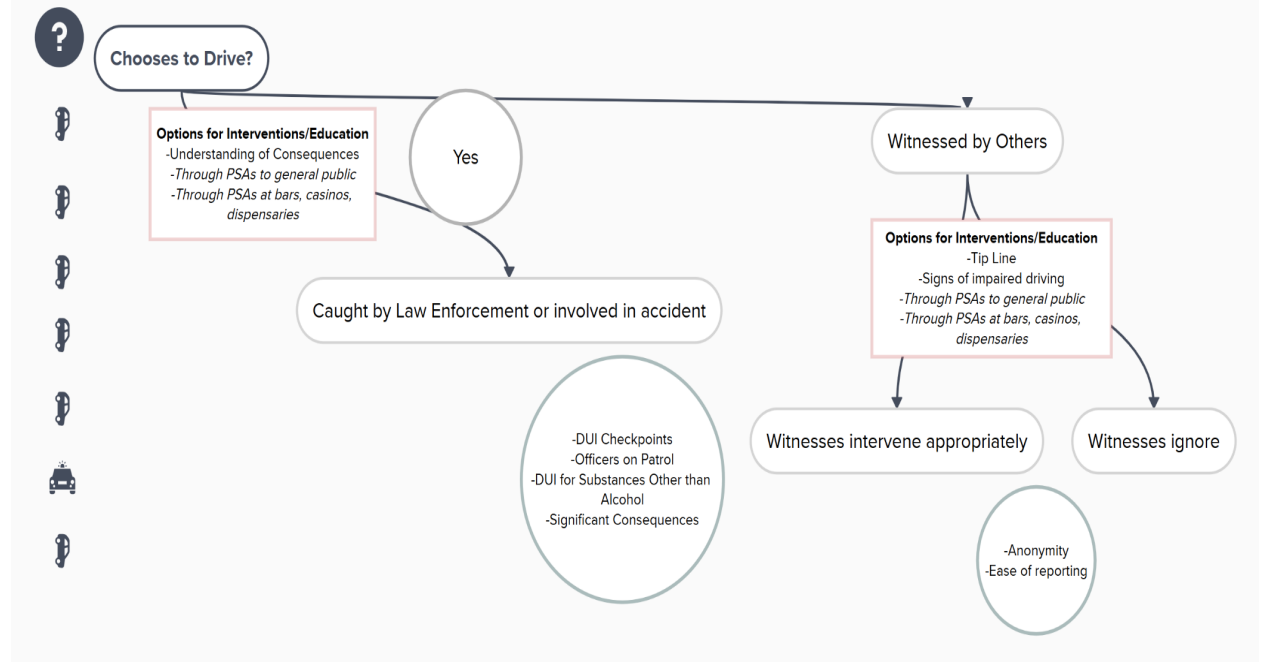
6. Over-serving. This topic relates to the 2023 NIDPP 2023 4.1.1 and 4.1.2, which recommend responsible alcohol and cannabis server training.

a. Dram shop laws. Dram shop laws are intended to reduce over-serving alcohol to patrons by holding a person or business liable for injuries caused by their customers.

Nevada has no dram shop laws, including liability for injuries caused by providing alcohol to underage patrons, over-serving alcohol, or over-serving cannabis. (NRS).

b. Social Host Liability laws. These laws attempt to curb over-serving by anyone who hosts a social gathering. Nevada does not have social host liability laws. However, people can be charged and held liable for damages if they furnish alcohol to an underage guest.

Intervention Opportunity #3: Consequences and Witness Behaviors



What the research says about consequences as a deterrent for future impaired driving, and witness behaviors

Survey Respondents and Focus Group Participants noted that “fear of getting caught” is not a barrier to impaired driving. This is supported by Rauch, et al, who report that:

...a person can drive while impaired by alcohol 200 to 2,000 times before being arrested once.

Even though they cited a lack of fear of getting caught as a barrier, many Survey Respondents still apparently overestimated the percentage of times someone is caught driving impaired (see survey findings above).

With respect to enforcement efforts, Olson found that:

...an increased risk of arrest does deter drunk driving...increased police surveillance is especially important at night, when most alcohol-induced traffic fatalities occur. Moreover, recent studies have shown that the speed with which drunk driving cases are decided in court can substantially influence the effectiveness of new drunk driving laws.

1. DUI Checkpoints
 - a. This topic aligns with Nevada’s 2023 Impaired Driving Program Plan countermeasure strategy of Highly Visible Enforcement.

- b. Publicized sobriety checkpoints are considered to be a highly effective enforcement countermeasure by the NHTSA Countermeasures.

2. Officers on Patrol

High-visibility saturation patrols are considered to be a highly effective enforcement countermeasure by the NHTSA Countermeasures. Training law enforcement for high-visibility DUI enforcement is also a strategy highlighted by Zero Nevada.

3. Punishments as deterrents

The NHTSA Countermeasures suggest that the most effective punishments include:

- a. Administrative License Revocation or Suspension. Nevada imposes administrative license suspension and revocation for DUI offenses.
- b. Lower BAC Limits. Nevada's BAC level (.08) is in line with most States in the US.
- c. High BAC Sanctions. Nevada has enhanced penalties for BAS .15% or higher.
- d. BAC Test Refusal Penalties. Refusing a chemical test results in immediate administrative license revocation for at least one year in Nevada.
- e. Common Practices with Little Evidence of Effectiveness. The following common judicial responses to DUI are not considered effective by the NHTSA Countermeasures:
 - i. Victim Impact Panels. The NHTSA Countermeasures do not consider Victim Impact Panels to be effective (based on several studies). However, Thompson, et al, found that victim impact panels "reduce DUI recidivism 5 to 8 years post sentence." This response needs more research.
 - ii. Court-imposed License Suspension or Revocation (which differs from "Administrative License Revocation or Suspension").
 - iii. Fines. Fines may not have an impact on deterring DUI, but they do support the criminal justice system, which can in turn, support treatment and intervention efforts.

- iv. Jail. Interestingly, the *threat* of jail may be effective (such as in DWI Courts), but mandatory jail policies are not shown to be effective.
- v. Community Service.

Nevada's penalties are detailed in a previous section.

4. Best practices for witnesses to report DUI.

This researcher conducted a Google search using the following terms, which garnered the following results:

- a. "Should I call law enforcement if I suspect DUI"
 - i. Online social platforms (e.g., Quora and Reddit) discussing many negative consequences of calling law enforcement. Many of these negative consequences were mentioned by Focus Group Participants and Survey Respondents (e.g., lack of anonymity and time and effort for paperwork).
 - ii. Law offices specializing in DUI defense post research and other information for potential clients.
 - b. "Report a drunk driver anonymously"
 - i. Washoe County Sheriff's Office Submit a Tip
 - ii. Nevada Highway Patrol (NHP 647) for non-emergencies
 - iii. USA.gov
 - iv. Wetip.com
 - v. Crimestoppersofnv.com
 - c. "Nevada highway patrol report DUI"
 - i. Call 911
 - ii. Law firms.
 - iii. Reno traffic on-line reporting system
 - iv. Las Vegas Metropolitan Police Department Filing a report
 - v. Washoe County Sheriff's Office Submit a Tip
5. Safewise.com is a private company that came up on every search. They provide the following tips:

License plate number

Make, model, and color of the car

Location of the vehicle, including street names or intersections

Driver description

If you're not driving, take a picture of the vehicle and the license plate number with your phone may be helpful. If you have a dash cam that can capture those details, even better.

Be prepared to describe why you have a reasonable suspicion the driver is drunk, including any unsafe driving behaviors you witnessed.

6. It is notable that there was no obvious "tip line" mentioned for reporting suspected DUI.
7. Safe, effective interpersonal intervention strategies. Intervening when a loved one or a stranger is making a decision to drive impaired can be daunting. It is important to remember that these conversations can happen before a person has ingested substances, during the moment the decision is being made, or later afterward, when everyone is sober.
 - a. Moon, et al, tested three models of social support to determine how people with a history of DUI arrest might reduce alcohol use. They defined social support as:
 - i. Emotional (e.g., reassurance, encouragement)
 - ii. Informational (e.g., advice, direction)
 - iii. Instrumental (e.g., financial aid, physical help)

They found that:

These findings highlight the benefits of social support (i.e., increased motivation to change alcohol use) for alcohol-impaired drivers. Regardless of the severity of alcohol-related problems of alcohol-impaired drivers, social support had direct positive impacts on motivation to change. In particular, the results underscore that social support can be more effective when it is matched to the recovery effort of individuals, which is consistent with the Optimal Matching model.

- b. Mothers Against Drunk Driving (MADD) provides the following guidelines for intervening with someone who is impaired and trying to drive:
- i. Be as non-confrontational as possible.
 - ii. Suggest alternate ways of getting to their destination – a cab, rideshare, a sober driver, or public transportation.
 - iii. Remember that the person you are talking to is impaired—talk a bit more slowly and explain things more fully than if you were speaking to a sober person.
 - iv. Explain that you don't want them to drive because you care and you don't want them to hurt themselves or others.
 - v. Suggest that they sleep over.
 - vi. Enlist a friend to help you or to act as moral support—it's more difficult to say "no" to two (or three or four) people than one.
 - vii. If possible, ask friends who plan to drink to give up their keys before they start drinking.
 - viii. If all else fails, call law enforcement. It's better to have a friend arrested than injured or killed.

(Source: MADD)

Nevada Impaired Driving Survey

This survey asks for your knowledge and attitudes about impaired driving. By impaired driving, we mean a person who is operating a vehicle is under the influence of any legal or illegal drugs or has illegal or legal drug levels in their body. This survey is confidential and anonymous. No attempt will be made to connect responses to any individual. The results of this survey will help the State of Nevada and the Substance Misuse Prevention Coalitions throughout Nevada to create more meaningful and appropriate education campaigns in their efforts to make Nevada’s highways and interstates safer.

1. What is the ZIP code where you live?

2. What is your age range?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

3. Do you believe any of the following substances can interfere with a person’s ability to safely drive a vehicle? (Check all that apply)

- Alcohol
- Marijuana (smoked)
- Marijuana in Edible Form
- Prescription Pain Medications (e.g. Fentanyl, Oxycontin, Vicodin)
- Other Opioids (e.g., Heroin)
- Over the counter medications (such as cough medications, sleeping medications, muscle relaxers, etc.)
- Stimulants (e.g., Methamphetamine, Cocaine)
- Psychedelics (e.g., Mushrooms, LSD)
- More than one substance (e.g., alcohol and marijuana at the same time)
- All of these
- None of these

4. How soon after ingesting one typical unit of the following substances is it safe to operate a motor vehicle?

	< 1 Hour	1-2 Hours	3-5 Hours	More than 5 Hours
Alcohol - One Standard Beer (12 oz/5% alcohol)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alcohol - One Shot or One Mixed Drink (1.5 oz/40% alcohol)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alcohol - One Glass of Wine (5 oz/12% alcohol)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marijuana (smoked)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marijuana (in Edible Form)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prescription Pain Medications (e.g. Fentanyl, Oxycontin, Vicodin)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Opioids (e.g., Heroin)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Over the counter medications (such as cough medications, sleeping medications, muscle relaxers, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulants (e.g., Methamphetamine, Cocaine)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Psychedelics (e.g., Mushrooms, LSD)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More than one substance (e.g., alcohol and marijuana at the same time)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Do you think individuals can experience varying physical responses to substances, for example, even if two people have the same blood alcohol content, their motor skills and reaction times might be noticeably different?

- Yes
- No
- I don't know

6. How familiar are you with the consequences of being found guilty of Driving Under the Influence (DUI)?

- Very Unfamiliar
- Unfamiliar
- Neutral
- I have a Basic Understanding But Could Learn More
- Familiar
- Very Familiar

7. Can a person driving under the influence of a substance other than alcohol (e.g., marijuana, prescription pain medications, etc.) be charged with a DUI?

- Yes
- No
- I don't know

8. Are the consequences of receiving a DUI for a **legal** substance other than alcohol similar to those of an alcohol DUI in terms of loss of license, fees and fines, etc?

- Yes, they are the same
- No, they are different
- I don't know

9. What are some signs that someone might be driving under the influence of a substance?

10. What do you think the chances are of someone getting arrested for driving impaired if they drive too soon after using the following substances?

	Always	Most of the Time	Half of the Time	Rarely	Never
Alcohol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marijuana (smoked)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marijuana in Edible Form	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prescription Pain Medications (e.g. Fentanyl, Oxycontin, Vicodin)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Opioids (e.g., Heroin)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Over the counter medications (such as cough medications, sleeping medications, muscle relaxers, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulants (e.g., Methamphetamine, Cocaine)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Psychedelics (e.g., Mushrooms, LSD)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More than one substance (e.g., alcohol and marijuana at the same time)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. In the past 30 days, have you read, seen, or heard any messages about impaired driving?

Yes

No

Nevada Impaired Driving Survey

12. Please describe the most recent message you saw, read, or heard. What was the message? Where did you see it (radio, billboard, highway sign, television, radio, online news, social media post, etc.) ?

13. Do you believe other people driving while impaired in your community is a threat to your personal safety or the safety of your family?

- Yes
- No

If yes, please describe

14. What barriers exist in your community that might lead to people driving while impaired?
(Check all that apply)

- Lack of access to public transportation
- Affordability of public transportation
- Lack of access to taxis or ride-sharing services
- Affordability of taxis or ride-sharing services
- No fear of getting caught
- Lack of designated driver
- Stigma related to leaving one's vehicle behind
- Stigma related to admitting impairment
- Lack of knowledge of legal consequences
- Lack of understanding about how substances impact driving ability
- Addiction
- Failure to plan ahead
- Lack of consideration for potential consequences to others
- Other (please specify)

15. What should a person do if they see someone who might be driving impaired?

16. How comfortable would you be telling a friend or loved one that they should not drive?

- Not at all comfortable
- Not very comfortable
- More or less comfortable
- Very comfortable
- Totally comfortable

17. How comfortable would you be telling a stranger that they should not drive?

- Not at all comfortable
- Not very comfortable
- More or less comfortable
- Very comfortable
- Totally comfortable

18. In the past year, how many times have you knowingly ridden in a vehicle with a driver who had recently ingested the following substances:

	Never	1-2 Times	A few times	Once a month or more	Multiple times a month
Alcohol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marijuana (smoked)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marijuana in Edible Form	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prescription Pain Medications (e.g. Fentanyl, Oxycontin, Vicodin)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Opioids (e.g., Heroin)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Over the counter medications (such as cough medications, sleeping medications, muscle relaxers, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulants (e.g., Methamphetamine, Cocaine)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Psychedelics (e.g., Mushrooms, LSD)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More than one substance (e.g., alcohol and marijuana at the same time)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unknown substance or substances	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. Where do you typically look for news or information (choose the top 3)?

- Online news outlets (e.g., BuzzFeed, NPR, Fox, New York Times, etc.)
- Traditional TV networks' news programs (e.g., ABC, NBC, CBS, Fox)
- Local Newspaper, print or online
- Local Radio
- Comedy shows (e.g., Daily Show with John Stewart)
- Social Networking Sites (e.g. Facebook, Instagram)
- Video Sharing Sites (e.g., YouTube, TikTok)
- Microblogging or Discussion Forums (e.g., Reddit, X)
- Home page of web browser (e.g., Yahoo!, Edge, Google, etc.)

20. Please share any recommendations you might have for the State of Nevada and/or substance misuse prevention organizations throughout the State to educate the public about the dangers and consequences of driving impaired.

Appendix B – Impaired Driving Survey (Spanish)

Nevada Impaired Driving Survey EN ESPANOL

Esta encuesta tiene preguntas sobre su conocimiento y actitud cuando se conduce bajo los efectos del alcohol. Por conducir en estado de ebriedad, nos referimos a una persona que está operando un vehículo bajo la influencia de cualquier droga legal o ilegal o tiene niveles de drogas ilegales o legales en su cuerpo. Esta encuesta es confidencial y anónima. No se hará ningún intento de conectar las respuestas a ningún individuo. Los resultados de esta encuesta ayudarán al Estado de Nevada y a las Coaliciones de Prevención del abuso de sustancias a través de Nevada. Para crear campañas educativas más significativas y apropiadas en sus esfuerzos por hacer que las carreteras de Nevada y las interestatales sean más seguras.

1. ¿ Cual es el código postal donde usted vive?

2. ¿Entre cuales edades esta?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

3. ¿Cree usted que alguna de las siguientes sustancias pueden interferir con la capacidad de una persona para conducir un vehículo de manera segura ? (marque todo lo que corresponda).

- Alcohol
- Marihuana (fumada)
- Marihuana en forma comestible
- medicamentos recetados para el dolor(ejemplo; fentanilo, oxycontin, vicodin)
- Otros opioides (ejemplo; Heroína)
- Medicamentos de venta libre (como medicamentos para la tos, Medicamentos para dormir, Relajantes musculares, etc.)
- Estimulantes (ejemplo; Metanfetamina, Cocaína)
- Psicodélica (ejemplo; hongos, LSD)
- Más de una sustancia (ejemplo; alcohol y marihuana al mismo tiempo)
- Todos estos
- Ninguno de estos

4. ¿Cuánto tiempo después de ingerir una unidad típica de las siguientes sustancias es seguro para operar un vehículo motorizado?

	< 1 Hora	1-2 Horas	3-5 Horas	Mas que 5 Horas
Alcohol - Una cerveza estándar (12 onzas/5% alcohol)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alcohol - Un trago o una bebida mezclada (1.5 onzas/40% alcohol)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alcohol - Una copa de vino (5 onzas/12%)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marihuana (fumada)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marihuana en forma comestible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medicamentos recetados para el dolor (ejemplo; fentanilo, oxycontin, vicodin)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Otros opioides (ejemplo; Heroína)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medicamentos de venta libre (como medicamentos para la tos, Medicamentos para dormir, Relajantes musculares, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Estimulantes (ejemplo; Metanfetamina, Cocaína)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Psicodélica (ejemplo; hongos, LSD)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Más de una sustancia (ejemplo; alcohol y marihuana al mismo tiempo)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. ¿Cree que las personas pueden experimentar diferentes respuestas físicas a las sustancias, por ejemplo, incluso si dos personas tienen el mismo contenido de alcohol en la sangre, Sus habilidades motoras y tiempos de reacción pueden ser notablemente diferentes?

- Si
- No
- No se

6. ¿Que tan familiarizado esta usted con las consecuencias de ser encontrado culpable por conducir bajo de la influencia (DUI)?

- Muy Desconocido
- Desconocido
- Neutral
- Tengo una comprensión básica pero podría aprender más
- Familiarizado
- Muy Familiarizado

7. ¿Puede una persona conducir bajo la influencia de una sustancia que no sea alcohol (por ejemplo; marihuana, medicamentos recetados para el dolor, etc.) ser acusado de conducir debajo de la influencia (DUI)?

- Si
- No
- No se

8. Son las consecuencias de recibir un DUI (conducir debajo de la influencia) por una sustancia **legal** que no sea alcohol similar a los de un alcohol DUI (conducir debajo de la influencia) en términos de pérdida de licencia, honorarios y multas, etc.?

- Si, son los mismos
- No, son diferentes
- No se

9. ¿Cuáles son algunos signos de que alguien podría estar conduciendo bajo los efectos de una sustancia?

10. ¿Qué posibilidades cree usted que haya de que alguien sea arrestado por conducir en estado de ebriedad si conducen demasiado pronto después de usar las siguientes sustancias?

	Siempre	Mas de las veces	La mitad del tiempo	Raramente	Nunca
Alcohol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marihuana (fumada)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marihuana en forma comestible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medicamentos recetados para el dolor (ejemplo; fentanilo, oxycontin, vicodin)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Otros opioides (ejemplo; Heroína)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medicamentos de venta libre (como medicamentos para la tos, Medicamentos para dormir, Relajantes musculares, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Estimulantes (ejemplo; Metanfetamina, Cocaína)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Psicodélica (ejemplo; hongos, LSD)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Más de una sustancia (ejemplo; alcohol y marihuana al mismo tiempo)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. ¿En los últimos 30 días, usted ha leído, visto o oído algún mensaje acerca de conducir en estado de ebriedad?

- Si
- No

Nevada Impaired Driving Survey EN ESPANOL

12. Describa el mensaje más reciente que vio, leyó o escucho. ¿Cuál fue el mensaje? ¿Dónde lo vio (radio, anuncio publicitario, señal de carretera, televisión, noticieros, publicación de redes sociales, etc)?

Nevada Impaired Driving Survey EN ESPAÑOL

13. ¿Cree usted que otras personas que conducen mientras están en estado de ebriedad en su comunidad sean una amenaza para su seguridad personal o la seguridad de su familia?

- Sí
- No

Si es sí, por favor describa

14. ¿Qué barreras existen en su comunidad que podrían llevar a las personas a conducir mientras

están en estado de embriaguez? (Marque todos los que se aplican)

- Falta de acceso al transporte público
- Acceso económico al transporte público
- Falta de acceso a taxis o servicios de transporte compartido
- Acceso económico a los servicios de taxi o de transporte compartido
- No tener miedo de ser atrapado
- La falta de conductor designado
- Estigma de dejar el vehículo abandonado
- Estigma de admitir su discapacidad
- Desconocimiento de las consecuencias legales
- Falta de conocimiento como las sustancias pueden impactar la capacidad de conducir
- Adicción
- Falta de planificación
- Falta de consideración por posibles consecuencias para los demás
- Otro (por favor especifique)

15. ¿Qué debe hacer una persona si ve a alguien que podría estar conduciendo bajo la influencia?

16. ¿Qué tan cómodo sería para usted de decirle a un amigo o ser querido que no debería conducir bajo la influencia?

- No me siento completamente cómodo/a
- No muy cómodo/a
- Mas o menos cómodo/a
- Muy cómodo/a
- Totalmente cómodo/a

17. ¿Qué tan cómodo sería para usted de decirle a un extraño que no debería conducir bajo la influencia?

- No me siento completamente cómodo/a
- No muy cómodo/a
- Mas o menos cómodo/a
- Muy cómodo/a
- Totalmente cómodo/a

18. En el último año, cuántas veces usted se ha subido en un vehículo sabiendo que el conductor consumió recientemente las siguientes sustancias:

	Never	1-2 Times	A few times	Once a month or more	Multiple times a month
Alcohol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marihuana (fumada)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marihuana en forma comestible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medicamentos recetados para el dolor (ejemplo; fentanilo, oxycontin, vicodin)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Otros opioides (ejemplo; Heroína)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medicamentos de venta libre (como medicamentos para la tos, Medicamentos para dormir, Relajantes musculares, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Estimulantes (ejemplo; Metanfetamina, Cocaína)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Psicodélica (ejemplo; hongos, LSD)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Más de una sustancia (ejemplo; alcohol y marihuana al mismo tiempo)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustancia desconocidas o sustancias	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. ¿Dónde suele buscar noticias o información (Escoja 3)?

- Medios de comunicación en línea (ejemplo; BuzzFeed, NPR, Fox, New York Times, etc.)
- Programas de noticias de las cadenas de televisión tradicionales (ejemplo; ABC, NBC, CBS, Fox)
- Periódico local, impreso o en línea
- Radio Local
- Programas de Comedia (ejemplo; Daily Show with John Stewart)
- Sitios de Redes Sociales (ejemplo; Facebook, Instagram)
- Sitios para Compartir Videos (ejemplo; YouTube, TikTok)
- Microblogging o foros de discusión (ejemplo; Reddit, X)
- Página de inicio del navegador web (ejemplo; Yahoo!, Edge, Google, etc.)

20. Por favor comparta cualquier recomendación que pueda tener para el Estado de Nevada y/o organizaciones de prevención del uso indebido de sustancias en todo el estado para educar al público sobre los peligros y las consecuencias de conducir bajo la influencia.

Focus Groups

1

Define

Definition (1-2-4-All/20 Min.) We are here to discuss your opinions and knowledge about impaired driving in _____ County.

For the next 1 minute I would like you to quietly create your own definition of “impaired driving”. Take notes.

For the next 2 minutes, please discuss your definition with one other person (2 people).

For the next 2 minutes, please form a group with another group of two (4 people) and discuss your definitions.

For the next 15 minutes please select a spokesperson for your group of 4 who is willing to describe your definitions.

Facilitator will keep time, support stalled conversations, help if people have trouble grouping into 2s or joining to form groups of 4. The facilitator will take notes and ask clarifying questions during the full-group, 15 minute discussion.

Prompts for full discussion:

Did groups identify substances other than alcohol?

Did they make any distinctions between legal and illegal use of Rx?

Did they make any distinctions between legal/illegal or medical/recreational or smoking/edible use of marijuana?

Did they mention methamphetamine or other stimulants?

Focus Groups

2

Identify Contributing Factors

Contributing Factors (1-2-4-All/10 Min.) Now we will discuss factors that might contribute to impaired driving in your community.

For the next 1 minute quietly identify the reasons that a person in your community might choose to drive while impaired.

For the next 2 minutes, please discuss with one other person your ideas about why a person might choose to drive impaired.

For the next 2 minutes, please form a group with another group of two (4 people) and discuss your theories.

For the next 10 minutes please select a spokesperson for your group of 4 who is willing to describe your theories.

Facilitator will keep time, support stalled conversations, help if people have trouble grouping into 2s or joining to form groups of 4. The facilitator will take notes and ask clarifying questions during full-group, 10 minute discussion.

Prompts for full discussion:

Did the groups mention access to ride-share, public transportation, taxis?

Did the groups discuss social stigma about admitting impairment or leaving a car behind?

Did the groups mention anything about fear of getting caught or fear of consequences as a deterrent?

Focus Groups

3

Recommend Approach

Approach (1-2-4-All/20 Min.). Now we will discuss your big ideas for implementing PSAs with the aim of increasing education and, ultimately, reducing impaired driving.

For the next 1 minute, please quietly consider ways that a public service campaign might reach someone in your age and/or community sector. Think big and bold.

For the next 2 minutes, please discuss with one other person your big, bold ideas about implementing appropriate messages in appropriate places.

For the next 2 minutes, please form a group with another group of two (4 people) to share your big ideas about creating and sharing public service messages.

For the next 10 minutes please select a spokesperson for your group of 4 who is willing to describe your big ideas.

Facilitator will keep time, support stalled conversations, help if people have trouble grouping into 2s or joining to form groups of 4. The facilitator will take notes and ask clarifying questions during full-group, 10 minute discussion.

Prompts: Did they provide any specifics about online/social media outlets?

Did they mention any PSAs (billboards, etc.) that they remember seeing before? Where did they see them? Were those effective?

Did they offer any other suggestions? (e.g., information with car registration, driver's license renewal, etc?)

Appendix D – Focus Group Worksheet

Worksheet for Capturing Data from Focus Group
Topic 1: Definition. Did your group come to a consensus about a definition? Explain what was included or excluded and things of interest that were brought up.
Topic 2: Contributing Factors. Did your group agree upon a list of contributing factors? Did anything surprise you?
Topic 3: Approach. Was your group able to come up with any big ideas for PSAs? Did they mention any other ways to get information about impaired driving to the public in a meaningful way?

Appendix E – Sources

Boston University School of Public Health.

<https://www.bu.edu/sph/news/articles/2016/social-norms-and-the-health-of-populations/>. Accessed 9/8/2025.

Cameron-Burr, Keaton T., Albert Conicella, Mark J. Neavyn. Opioid Use and Driving Performance. *Journal of Medical Toxicology*. 2021 Jan 5;17(3):289-308.

<https://pubmed.ncbi.nlm.nih.gov/articles/PMC8206443/#:~:text=This%20review%20of%20the%20experimental,to%20opioids%2C%20among%20other%20variables.>

Accessed 9/8/2025.

Cleveland Clinic Health Essentials. How Does Alcohol Affect Your Brain?

<https://health.clevelandclinic.org/how-does-alcohol-affect-the-brain>. Accessed 9/8/2025.

Colorado Department of Public Health and Environment. How Long Should I Wait to

Drive after Getting High? <https://www.codot.gov/safety/impaired-driving/druggeddriving/campaign-news/how-long-should-i-wait-to-drive-after-getting-high>. Accessed 9/3/2025.

Community Tool Box Stages of Community Readiness. <https://ctb.ku.edu/en/table-of-contents/overview/models-for-community-health-and-development/community-readiness/main>. Accessed 9/18/2025.

Johnson, Mark B. *Journal of Studies in Alcohol and Drugs*. 2012 Sep;73(5):851-859.

<https://pubmed.ncbi.nlm.nih.gov/articles/PMC3410953/#:~:text=Social%20norms%20the%20ory%20articulates%20that,because%20of%20the%20theory's%20limitations.>

Accessed 9/8/2025.

MADD. How to Prevent Someone from Driving Impaired. [https://madd.org/concerned-citizen/#:~:text=Be%20as%20non%2Dconfrontational%20as,or%20four\)%20people%20than%20one.](https://madd.org/concerned-citizen/#:~:text=Be%20as%20non%2Dconfrontational%20as,or%20four)%20people%20than%20one.) Accessed 9/8/2025.

Marcotte, Thomas D., Anya Umlauf, David J. Grelotti, Emily G. Sones, Philip M. Sobolesky, Breland E. Smith, Melissa A. Hoffman, Jacqueline A. Hubbard, Joan Severson, Marilyn A. Huestis, Igor Grant, and Robert L. Fitzgerald. Driving Performance and Cannabis Users' Perception of Safety: A Randomized Clinical Trial. *JAMA Psychiatry*. 2022 Mar 1;79(3):201-209. <https://pubmed.ncbi.nlm.nih.gov/35080588/>. Accessed 9/3/2025.

Moon, Tae-Joon, Charles W. Mathias, Jillian Mullen, Tara E. Karns-Wright, Nathalie Hill-Kapturczak, John D. Roache, Donald M. Dougherty. The Role of Social Support in Motivating Reductions in Alcohol Use: A Test of Three Models of Social Support in Alcohol-Impaired Drivers. *Alcohol, Clinical and Experimental Research* 2018 Nov 15;43(1):123-134. <https://pubmed.ncbi.nlm.nih.gov/articles/PMC6380519/>. Accessed 9/8/2025.

National Institute on Alcohol Abuse and Alcoholism. <https://www.niaaa.nih.gov/publications/brochures-and-fact-sheets/understanding-alcohol-use-disorder>. Accessed 9/3/2025.

National Highway Traffic Safety Administration's Countermeasures That Work. <https://www.nhtsa.gov/book/countermeasures-that-work/alcohol-impaired-driving/countermeasures/unproven-further-evaluation/designated>.

National Institute on Alcohol Abuse and Alcoholism. The Basics: Defining How Much Alcohol is Too Much. <https://www.niaaa.nih.gov/health-professionals-communities/core-resource-on-alcohol/basics-defining-how-much-alcohol-too-much#pub-toc2>. Accessed 9/3/2025.

Nevada Office of Traffic Safety 2023 Impaired Driving Program Plan. <https://zerofatalitiesnv.com/app/uploads/2023/06/NV-Impaired-Driving-Program-Plan.pdf>. Accessed 9/3/2025.

Nevada Revised Statutes (NRS) 41.13051.1. <https://www.leg.state.nv.us/nrs/NRS-041.html#NRS041Sec1305>. Accessed 9/8/2025.

Nevada Zero Fatalities. <https://zerofatalitiesnv.com/impaired-driving-prevention/>. Accessed 9/3/2025.

Olson S, Gerstein DR. *Alcohol in America: Taking Action to Prevent Abuse*. Washington (DC): National Academies Press (US); 1985. 3, Preventing Drunk Driving. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK217455/>. Accessed 9/8/2025.

Rauch, William J., Paul L. Zador, Eileen M. Ahlin, Jan M. Howard, Kevin c. Frissell, g. Doug Duncan. Risk of Alcohol-Impaired Driving Recidivism Among First Offenders and Multiple Offenders. *American Journal of Public Health*. 2010 May;100(5):919-924.

Safewise. How to Report a Drunk Driver. <https://www.safewise.com/faq/auto-safety/report-drunk-driver/>. Accessed 9/8/2025.

Sloan, Frank A. Lindsey M. Eldred. Do Preferences of Drinker-Drivers Differ? Journal of Health Economics and Management. 2015 Mar22;15(2):241-268. <https://pmc.ncbi.nlm.nih.gov/articles/PMC5123438/>. Accessed 9/3/2025.

Thompson, Kevin and Sarah Joyce. Do Victim Impact Panels Have Sustained Effects on DUI Recidivism? Laws 2022, 11(2), 28. <https://www.mdpi.com/2075-471X/11/2/28>. Accessed 9/11/2025.

Van Steenberghe, Henk. Marie Eikemo, Siri Leknes. The Role of Opioid System in Decision Making and Cognitive Control: A Review. Cognitive Affect Behavioral Neuroscience. 2019 Apr 8;19(3):435-458. <https://pmc.ncbi.nlm.nih.gov/articles/PMC6599188/>. Accessed 9/8/2025.

Verdejo-Garcia, A., M. Perez-Garcia, A. Bechara. Emotion, Decision-Making and Substance Dependence: A somatic-Marker Model of Addiction. Current Neuropharmacology. 2006 Jan;4(1):17-31. <https://pmc.ncbi.nlm.nih.gov/articles/PMC2430678/#:~:text=Similar%20to%20patients%20with%20orbitofrontal,of%20severe%20negative%20future%20consequences>. Accessed 9/3/2025.

Wesley, Michale J., Colleen A. Hanlong, Linda J. Porrino. Poor Decision-Making by Chronic Marijuana Users is Associated with Decreased Functional Responsiveness to Negative Consequences. Psychiatry Research. 2010 Dec 9;191(1):51-59. <https://pmc.ncbi.nlm.nih.gov/articles/PMC3125637/>. Accessed 9/8/2025.

Wilson, Hollie, Stoyan R. Stoyanov, Shailen Grandabhai, Alexander Baldwin. JMIR Mental Health U Health. 2016 August 8;4(3):e98. <https://pmc.ncbi.nlm.nih.gov/articles/PMC4993865/#:~:text=In%20the%20drink%20driving%20context,assessment%20and%20ongoing%20behavior%20change>. Accessed 9/18/2025.

Zhand, Lening, William F. Wiczorek, John W. Welte. The Influence of Parental and Peer Drinking Behaviors on Underage Drinking and Driving by Young Men. Journal of Drug Education. 2012;42(3):347-359. <https://pmc.ncbi.nlm.nih.gov/articles/PMC3873718/>. Accessed 9/3/2025.