

TIRF



TARGET AUDIENCE

IMPAIRED DRIVING & ROAD SAFETY CAMPAIGNS



There has been much progress reducing alcohol-impaired driving fatalities in the past three decades. Improvements in vehicle design and vehicle safety features combined with behavioral interventions have played important roles in achieving this goal, but still, 10,511 people were killed in alcohol-impaired driving fatalities in 2019. While this represents a 3.6% decrease from 2018,¹ much more work remains to better protect road users and prevent these deaths.

Road safety campaigns are one of the most commonly used tools to promote behavior change and improve road safety. The popularity of campaigns may be a result of the fact they are affordable, scalable in size, and can be used for a period of weeks, months, or years in either an intermittent or a sustained fashion.² Furthermore, campaigns can be tailored to different audiences and easily adapted to various road safety issues.



Important knowledge had been gained from the evaluation of road safety campaigns, and consideration of this evidence can help to maximize the effectiveness of them. Notably, campaign messages and visuals should address the reasons or motivations for impaired drivers to engage in the behavior. When the target audience is able to relate to the situation illustrated and “see themselves” in it, campaign messages are more likely to strike a chord and motivate them to change their behavior.

This fact sheet discusses the reasons people drink and drive, the characteristics of drivers who engage in this behavior, and their experiences in the justice system. It also provides information about the effectiveness of road safety campaigns and shares the types of messages that are more likely to resonate with drivers, as well as examples of effective campaigns. It also contains links to tools to help highway safety offices, enforcement agencies, public health agencies, and community advocates develop road safety campaigns.

¹ National Center for Statistics and Analysis, 2019

² Robertson and Pashley, 2015

Why do people drink and drive?

According to the 2019 TIRF USA Road Safety Monitor (RSM), approximately 20% of US drivers self-reported driving when they thought they were over the legal limit in the past year; 11% of them reported doing so often or very often. Among this 20% of drivers, almost 40% of them (39.4%) did so because they thought they were okay to drive. Additionally, 10.4% reported they thought they could drive carefully regardless, 9.8% thought they would not be caught and 9.6% thought there was no alternative to driving.³

Who drinks and drives?

An analysis of TIRF USA RSM aggregated trend data from 2015 to 2019 revealed older drivers were less likely to report driving when they thought they were over the legal limit. Among respondents aged 21 to 39 years, approximately 21.8% reported this behavior, whereas among those aged 40 to 59 years approximately 8.9% and 8% of drivers over age 60 reported doing so. Males (16.8%) were more likely than females (8.2%) to report driving while they thought they were over the legal limit.⁴

How effective are road safety campaigns?

Road safety campaigns have shown a range of positive outcomes, including changing public perceptions and reducing crashes. A European meta-analysis examined 119 effects extracted from 67 international studies identified the features of campaigns contributing to effectiveness in terms of crash reductions. These features included:

- > impaired driving campaigns;
- > shorter duration (less than one month);
- > personal communication;
- > roadside delivery;
- > combined emotional/rational message;
- > accompanied by enforcement; and,
- > combined with mass media.⁵

A meta-analysis conducted in Sweden on road safety campaign to examine the effects of campaigns on road incidents showed a statistically significant 14.4% decrease in road safety incidents as a result of drink driving campaigns.⁶

The *Manual for Designing, Implementing and Evaluating Road Safety Communication Campaigns*,⁷ identified five main goals of road safety campaigns:

- > providing information about new or modified laws;
- > improving knowledge and/or awareness of new in-vehicle systems, risk, and appropriate preventative behaviors;
- > changing underlying factors known to influence road-user behavior;
- > modifying problem behaviors or maintaining safety-conscious behaviors; and,
- > decreasing the frequency and severity of crashes.

Creating campaigns based on psychosocial theories and using positive and/or humorous, fact-based messaging can be effective in changing behaviors. Campaign messages should convey risks in a way that make them real and relevant to the targeted audience. Most importantly, campaigns must do more than tell audiences not to engage in specific risky behaviors; they must also be self-efficacious, meaning campaigns must promote alternative, safer behaviors the target audiences believe are practical and achievable.

How can the experiences of impaired drivers in the justice system inform impaired driving campaigns?

Creating campaigns portraying real-life experiences of offenders increases the personal relevance of campaign messages which is an essential component of behavior change. Offenders must be able to see themselves in the situation portrayed in order for them to relate to the message.

Campaign messages should convey risks in a way that make them real and relevant to the targeted audience.

To this end, a 82 impaired driving offenders were interviewed in 2012 about their experiences within the criminal justice system.⁸ The study highlighted three main experiences:

- > being handcuffed was “embarrassing” and was motivation in itself to prevent another arrest;

^{3,4} Vanlaar et al. 2019

⁵ Phillips et al., 2011

⁶ Vaa et al., 2004

⁷ Delhomme et al., 2009

⁸ Lapham and England, 2012

- > financial loss was the most negative experience within the justice system (i.e., fines, and fees);⁹ and,
- > the DWI arrest was a “wake up call” that prompted offenders to think about their drinking habits and gave them perspective.

According to U.S. public defenders, defendants charged with their first DWI offenses share some common characteristics, as do impaired driving defendants.¹⁰ In general, first impaired driving offenders:

- > are more likely to be guilty of bad judgment and most do not re-offend after experiencing the court process;
- > believe they are not criminals because “it was only a DWI”;
- > do not understand the legal process or know what to expect; and,
- > do not understand what breath or blood evidentiary results mean.

In contrast, persistent offenders of impaired driving:¹¹

- > are more likely to have anti-social behaviors;
- > are more likely to have severe substance abuse issues (i.e., fail to recognize they have a problem);
- > may be older, problem drinkers with a constellation of other issues;
- > considered impoverished or have limited income;
- > are more likely to have cognitive deficits in executive cognitive functioning (i.e., poor planning and memory, problems with impulse control), and,
- > are more likely to have a history of trauma and poor coping skills.

Of concern, there is some evidence young impaired drivers, aged 16-24 years are a growing population. According to 2018 Fatality Analysis Reporting System (FARS) data, 19.2% of drivers involved in fatal crashes with a BAC of .08+ g/dL.¹² Research has demonstrated that young adults who choose to drink and drive typically believe they act the same as most young people their age, and the majority

of young people engage in the same behaviors. Campaigns to address this population of drivers are most effective when they involve social media and address perceptions of social norms, which have a more powerful effect on behavior than risks to health or safety.¹³

Research also shows female impaired drivers have different experiences compared to males and few existing campaigns address the experiences of women.¹⁴ In general, female impaired drivers:

- > report the presence of a life stressor immediately prior to their drinking and driving offense;
- > acknowledge or allude to a history of trauma, although the nature and extent of it varied considerably; and,
- > are more likely to drink as a coping mechanism and may accumulate multiple arrests in a short timeframe.



Historically, drinking and driving prevention campaigns have portrayed males and the types of situations in which drinking is more likely to occur. Solutions have focused heavily on public transportation and ride-sharing solutions, or staying at someone’s house. In contrast, many women report they often do not see themselves in these situations. Moreover, due to safety concerns, they are not persuaded by messages promoting the use of public transportation or taxis.¹⁵

According to women, prevention messages should include the following:

- > Share knowledge about biological differences which can contribute to impairment among women, highlighting women metabolize just $\frac{3}{4}$

⁹ Lapham and England, 2012

¹⁰ TIRF, 2018

¹¹ TIRF, 2018

¹² National Center for Statistics and Analysis, 2019

¹³ Robertson and Pashley, 2015

¹⁴ Robertson, Holmes, and Marcoux, 2013

¹⁵ Robertson, Holmes, and Marcoux, 2013

of a standard drink per hour which is less than the one drink an hour recommended for men.

- > Emphasize subjective estimates of impairment are inaccurate and people should not rely on “how impaired they feel” when deciding whether they are okay to drive.
- > Encourage women to share transportation alternatives in groups and check on each other to make sure other women have a safe ride, or a ride from someone they know well.
- > Create opportunities for women to talk about personal issues and how drinking can play a role.¹⁶

These studies about offender experiences underscore the fact many impaired drivers believed they would be safe while driving impaired and did not consider the potential consequences. Creating campaigns with messaging reflecting the experiences of offenders describe here are more likely to connect with impaired drivers.

What types of road safety campaign messages are most effective?

There are four main styles to campaign messages. Some of these styles may be more appropriate for some audiences than others. It is important to select a campaign message approach best-suited for the community and topic.

1. Positive messaging is beneficial. Drivers do not want to be lectured and are more likely to connect with messages explaining risks and demonstrating how risks can be reduced or avoid through alternative behaviors.¹⁷ Many campaigns emphasize what drivers should not do, whereas positive messaging informs drivers what they should do.



^{17, 18, 19, 20, 21} Robertson and Pashley, 2015

¹⁶ Robertson, Holmes, and Marcoux, 2013

²² Boulanger et al., 2007; Wundersitz et al. 2010

²³ Robertson and Pashley, 2015; Yadav and Kobayashi, 2015; Elder et al. 2004

2. Humor is a useful approach to engage the audience and can reduce the likelihood drivers will be defensive and justify their personal behavior while ignoring the message as irrelevant to them.¹⁸
3. Fact-based messages are designed to educate the audience about risks and consequences in addition to encouraging drivers to make informed decisions about their behavior. The use of facts makes it difficult to dismiss the messaging as personal while also stimulating interest among the audience and motivating them to be better informed.¹⁹
4. Fear-based appeals use graphic imagery to scare and shock the target audience, taking advantage of their emotions.²⁰ The effectiveness of this approach is unclear, as people react differently to fear-based approaches depending on the characteristics and personal experiences. This style is least effective with young males who represent the highest risk to engage in unsafe behaviors.

What are important features of impaired driving campaigns?

Impaired driving prevention campaigns have shown positive results, especially when combined with enforcement activity.²¹ Mass media campaigns have been shown to be most effective in reducing impaired driving when their messages are reinforced by other initiatives such as grassroots activities, law enforcement efforts, or other media messages.²²

According to research,²³ successful impaired driving prevention campaigns include the following:

- > messages emphasizing the consequences of alcohol-impaired driving;
- > messages challenging negative social norms;
- > messages increasing awareness of the risks and consequences of a behavior;
- > messages combined with enforcement activity; and,
- > messages using social norms and targeting drinking drivers.



Source: Budweiser USA Twitter <https://twitter.com/budweiserusa/status/513719357529014272>

What tools are available to inform the development of road safety campaigns?

The following tools and resources can inform the development of road safety campaigns:

- > Community-Based Toolkit for Road Safety Campaigns (Traffic Injury Research Foundation)
- > Road Safety Campaigns: What the research tells us (Traffic Injury Research Foundation)
- > GHSA and NHTSA's Social Media Practices in Traffic Safety (National Highway Traffic Safety Administration and Governors Highway Safety Association)
- > CDC's Social Media Tools, Guidelines & Best Practices (Center for Disease Control and Prevention)
- > Countermeasures that Work (National Highway Traffic Safety Administration)

About the Working Group

The Working Group on DWI System Improvements is a prestigious coalition of senior leaders of organizations representing frontline professionals in all segments of the criminal DWI system (law enforcement, prosecution, judiciary, supervision, and treatment). During its 14-year tenure, this distinguished consortium has shaped the focus on and development of drunk driving initiatives in the United States with its unique perspective on knowledge transfer of critical research findings, as well as the translation of legislation, policies, and programs into operational practices. The efforts of the Working Group on DWI System Improvements have served to identify critical system needs, to

make needed educational materials available, to articulate the complex issues associated with program and policy implementation embedded within broader systems, and to give voice to the concerns of practitioners in the DWI system and identify achievable solutions. Since 2004, the Working Group has met annually to produce much-needed educational primers, policy documents and guides for justice professionals to help strengthen the efficiency and effectiveness of the DWI system for dealing with persistent impaired driving offenders. These documents can be accessed at www.dwiwg.tirf.ca.

- > 2004 – Working Group on DWI System Improvements: Proceedings of the Inaugural Meeting
- > 2006 – A Criminal Justice Perspective on Ignition Interlocks
10 Steps to a Strategic Review of the DWI System: A Guidebook for Policymakers
- > 2007 – Screening, Assessment, and Treatment: A Primer for Criminal Justice Practitioners
Improving Communication and Cooperation
- > 2008 – Impaired Driving Priorities: A Criminal Justice Perspective
- > 2009 – Impaired Driving Data: A Key to Solving the Problem
Funding Impaired Driving Initiatives
Understanding Drunk Driving
- > 2010 – Effective Strategies to Reduce Drunk Driving
- > 2011 – Performance Measures in the DWI System
- > 2012 – Impaired Driving in Rural Jurisdictions: Problems and Solutions
- > 2013 – DWI Dashboard Report: A Tool to Monitor Impaired Driving Progress
- > 2014 – DWI Dashboard Strategic Guide: Addressing Gaps in the DWI System
- > 2015 – Post-Conviction Services for DWI Offenders: Building Community Partnerships
- > 2017 – The Persistent DWI Offender Policy & Practice Considerations
- > 2017 – Navigating the DWI System Perspectives of Public Defenders
- > 2017 – Key Questions that Help Motivate DWI Probationers

References

- Boulanger, A., Daniels, S., Delhomme, P., Deugnier, M., Divjak, M., Eyssarteir, C., et al. (2007). Campaigns and awareness-raising strategies in traffic safety. Deliverable 2.2: Comparison of research designs. Brussels, Belgium: Belgian Road Safety Institute.
- Delhomme, P. De Dobbeleer, W., Forward, S., and Simoes, A. (2009). Manual for designing, implementing and evaluating road safety communication campaigns. Brussels: Belgian Road Safety Institute. Department for Transport. (unknown date). THINK!. Retrieved from: <http://think.direct.gov.uk/drinkdriving.html>.
- Elder, R. W., Shults, R. A., Sleet, D. A., Nichols, J. L., Thompson, R. S., Rajab, W., & Task Force on Community Preventive Services. (2004). Effectiveness of mass media campaigns for reducing drinking and driving and alcohol-involved crashes: a systematic review. *American journal of preventive medicine*, 27(1), 57-65.
- Gotthoffer, A. R. (2001). Exploring the relevance of localization in anti-drinking and driving PSAs: Factors that may influence college students' behaviors. *Health marketing quarterly*, 18(3-4), 63-79.
- Lapham, S., & England-Kennedy, E. (2012). Convicted driving-while-impaired offenders' views on effectiveness of sanctions and treatment. *Qualitative health research*, 22(1), 17-30.
- National Center for Statistics and Analysis. (2019, October). 2018 fatal motor vehicle crashes: Overview. (Traffic Safety Facts Research Note. Report No. DOT HS 812 826). Washington, DC: National Highway Traffic Safety Administration.
- National Center for Statistics and Analysis. (2019, December). Alcoholimpaired driving: 2018 data (Traffic Safety Facts. Report No. DOT HS 812 864). Washington, DC: National Highway Traffic Safety Administration.
- Phillips, R. O., Ulleberg, P. and Vaa, T. (2011). Meta-analysis of the effect of road safety campaigns on accidents. *Accident Analysis and Prevention* 43: 1204-1218.
- Robertson, R. D., Holmes, E., & Marcoux, K. (2013). Female drunk drivers: A qualitative study.
- Robertson, R. D., & Pashley, C. R. (2015). Road Safety Campaigns: What the Research Tells Us. Traffic Injury Research Foundation: Ottawa, ON.
- Traffic Injury Research Foundation (2018). The Persistent DWI Offender: Policy & practice considerations. Traffic Injury Research Foundation: Ottawa, ON.
- Vaa, T., Assum, T., Ulleberg, P., and Veisten, K. (2004). Effects of information on behaviour and road accidents: Conditions, evaluation and cost-effectiveness (TØI-report 727/2004). Oslo: Institute of Transport Economics.
- Vanlaar, W.G.M., Lyon, C., Wicklund, C., & Robertson, R. D. (2019). Alcohol-impaired driving in the United States. Results from the 2019 TIRF USA Road Safety Monitor. Traffic Injury Research Foundation: Ottawa, ON.
- Wundersitz, L. N., Hutchinson, T. P., and Woolley, J. E. (2010). Best practice in road safety mass media campaigns: A literature review. Centre for Automotive Safety Research. Adelaide, Australia.
- Yadav, R. P., & Kobayashi, M. (2015). A systematic review: effectiveness of mass media campaigns for reducing alcohol-impaired driving and alcohol-related crashes. *BMC public health*, 15(1), 857.
- Yanovitzky, I. (2004, November 6-10). Defensive processing of alcohol-related social norms messages by college students. Paper presented at the 132nd Annual Meeting of APHA. American Public Health Administration (APHA), Washington, D.C..

Traffic Injury Research Foundation

The mission of the Traffic Injury Research Foundation (TIRF) is to reduce traffic-related deaths and injuries. TIRF is a national, independent, charitable road safety institute. Since its inception in 1964, TIRF has become internationally recognized for its accomplishments in a wide range of subject areas related to identifying the causes of road crashes and developing programs and policies to address them effectively.

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ISBN: 978-1-989766-06-4



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This initiative was made possible by a charitable contribution from Anheuser-Busch.