ADVOCATES FOR HIGHWAY & AUTO SAFETY

Impaired Driving

The Issue:

Alcohol impaired driving is a persistent factor in crash fatalities and injuries on our roadways, accounting for 30 percent of deaths each year on average. The National Transportation Safety Board (NTSB) includes "prevent alcohol – and other drug-impaired driving" on its Most Wanted List of Transportation Safety Improvements.[1]

The Impact:

- In 2020, 11,654 people were killed in motor vehicle crashes involving drivers with a blood alcohol concentration (BAC) of .08 percent or higher.[2]
- Preliminary data for 2021 finds that fatalities in police-reported alcohol-related crashes increased five percent.[3]
- Alcohol-impaired-driving fatalities increased 14 percent from 2019 to 2020 and accounted for 30 percent of the total motor vehicle traffic fatalities in the United States.[4]
- The fatality rate per vehicle miles traveled (VMT) for alcohol-impaired driving increased 29 percent from 2019 to 2020.[5]
- The National Highway Traffic Safety Administration (NHTSA) has identified alcohol-impaired driving as one of "three major behavioral factors," that contributed to dramatic crash fatality increases from 2019 to 2020.[6]
- An average of one alcohol-impaired driving fatality occurred every 45 minutes in 2020.[7]
- In 2010, the estimated total comprehensive costs of drunk driving were more than $200 billion annually.[8] Accounting for inflation only, that amounts to more than $261 billion in 2022 dollars.[9]
- The total cost to employers of motor vehicle crashes with an alcohol-impaired employee or dependent driving (both on-the-job and off-the-job) was $8 billion in 2018 (expressed in 2019 dollars).[10]
- Concern about impaired driving is extensive with 80 percent of respondents "very" or "extremely" concerned about drunk or drug impaired driving, according to a December 2021 opinion poll commissioned by Advocates and conducted by ENGINE Insights.[11]

The Facts:

- A common misconception is that most people who are convicted of their first drunk driving offense are social drinkers who made one mistake. However, studies show that the average first offender will have driven drunk 87 times before getting arrested.[12]
- According to the Centers for Disease Control and Prevention (CDC), adult drivers admitted they drank too much and got behind the wheel approximately 111 million times in 2014, which equals over 300,000 incidents of drinking and driving each day.[13] However, only 1.1 million, or approximately one percent of that 111 million, were arrested for driving under the influence that year.[14]
- Drivers with a BAC of .08 or higher involved in fatal crashes were four times more likely to have a prior conviction for driving while impaired (DWI) than drivers with no alcohol.[15]

The Solutions: Laws, Technology and Road Safety Infrastructure

Ignition Interlock Devices

- An alcohol ignition interlock device (IID) is a mechanism similar to a breathalyzer which is linked to a vehicle's ignition system. An IID can be used to deter an individual who has a prior drunk driving conviction from driving the vehicle with a BAC that exceeds a specific level. Before the vehicle can be started, the driver must breathe into the device, and if the analyzed result is over the specified BAC limit,

the vehicle will not start. In addition, at random times after the engine has been started, the IID will require another breath sample. This prevents cheating where another person breathes into the device to bypass the system in order to enable an intoxicated person to get behind the wheel and drive. If the breath sample is not provided, or the sample exceeds the device's preset BAC, the device will log the event, warn the driver and then set off an alarm (such as the lights flashing or horn honking) until the ignition is turned off.[16]

- State laws requiring IIDs for all convicted drunk driving offenders offer the most effective means for denying them the opportunity to get behind the wheel (*See Advocates' Roadmap to Safety Report for more information about state laws*).
- Nationwide between 2006 and 2020, IIDs prevented 3.78 million attempts to drive drunk, according to a 2022 report from Mothers Against Drunk Driving (MADD). This included 390,456 attempts in 2020, more than 1,000 every day.[17]
- There is clear public support for IIDs for all convicted drunk drivers, with surveys showing between 69 and 88 percent of respondents in favor of requiring IIDs for all convicted DUI offenders, even if it's their first conviction.[18]
- 82 percent of offenders themselves believe the IID was effective in preventing them from driving after drinking.[19]
- When IIDs are installed, they are associated with an approximately 70 percent reduction in repeat offenses for impaired driving.[20]
- Research shows that IIDs reduce recidivism among both first-time and repeat DWI offenders, with reductions in subsequent DWI arrests ranging from 50 to 90 percent while the interlock is installed on the vehicle.[21]
- A University of Pennsylvania study found that requiring IIDs for all drunk-driving convictions was associated with 15 percent fewer alcohol-involved crash deaths, compared with states with less-stringent requirements. Interlocks are a life-saving technology that merit wider use.[22]
- An Insurance Institute for Highway Safety (IIHS) study on the effects of Washington's interlock requirement found that the law change was associated with an 8.3 percent reduction in single-vehicle late-night crash risk, suggesting a general deterrent effect of the expanded interlock requirement.[23]
- According to the American Journal of Preventative Medicine, "[i]ncreasing the spread of interlock laws that are mandatory for all offenders would have significant public health benefit."[24]

.05 Percent Blood Alcohol Concentration (BAC) Laws

- Lowering BAC to .05 percent has been shown to result in a broad deterrent effect that reduces the incidence of drunk driving and saves lives (but does not necessarily increase arrests or lower alcohol consumption).[25]
- In 2017, Utah became the first state to enact a .05 percent BAC law. NHTSA's review of the impact of the new law in Utah during the first year that the law went into effect has yielded some excellent results:
    - Between 2016 and 2019 the fatal crash rate decreased by 19.8 percent;
        - The fatality rate per vehicle miles travelled also dropped by 18.3 percent;
    - In the first 12 months that the law went into effect, the number of drivers testing positive for any alcohol declined by 14.6 percent;
    - Alcohol-impaired driving arrests did not climb sharply; and,
    - Alcohol sales from 2012 through 2108 increased and continued the trend in fiscal year (FY) 2022.
        - Similar patterns occurred in sales tax revenues from restaurants, rental cars, hotels, and resorts, as well as in air travel into the state and visitors to parks.
- It is important to note that this broad deterrent effect applies to all BAC levels including high BAC.[26]
- Approximately 100 countries have some type of .05 percent or lower BAC laws. While their average alcohol consumption is the same or higher than the U.S., their alcohol-related deaths are lower.[27]
- Twenty years of international studies have shown that when a country lowers BAC limits from .08 to .05 percent, alcohol-related fatal and injury crashes decrease between five percent and 10 percent.[28]
- An 11.1 percent decline in fatal alcohol-related crashes could occur and 1,790 lives could be saved annually in the U.S. if all states adopted a .05 percent BAC or lower law.[29]

- Research published in the American Journal of Public Health concluded "that BAC 0.05 laws are ethically desirable because they are likely to prevent substantial harm with minimal restrictions. Policymakers in other states should follow Utah's lead to reduce alcohol-related traffic deaths and Congress should incentivize these changes."[30]

Vehicle Safety Technology and Safety Standards Can Protect Vehicle Occupants and Other Road Users
The U.S. Department of Transportation (DOT) must expeditiously use its authority to advance minimum performance standards for vehicle safety technologies which can prevent or mitigate crashes and protect vehicle occupants and road users. These safety technologies should be standard, not optional, equipment in new vehicles. This action will achieve safety equity by both ensuring that the technology responds to and benefits all road users and that consumers buying new vehicles are not charged extra for the technology. Moreover, requiring equipment as standard can reduce the base cost of technology due to economies of scale.

Impaired Driving Prevention Systems:

- According to research from IIHS released in July 2020, *Potential lives saved by in-vehicle alcohol detection systems,* impaired driving prevention technology could yield considerable benefits. IIHS finds that alcohol-detection systems could save more than 9,000 lives a year in the U.S., accounting for more than 25 percent of road fatalities.[31]
- The European New Car Assessment Program (Euro NCAP) has started evaluating driver monitoring systems which can help "mitigate the very significant problems of driver distraction and impairment through alcohol, fatigue, etc."[32] in its rating program.
- A survey by AAA found 70 percent support for "a law requiring all new cars to have a built-in technology that would not let the car start if the driver's alcohol level is over the legal limit."[33]
- Mothers Against Drunk Driving (MADD) conducted a 2022 poll which found that:
    - Nine out of 10 Americans support technology that is integrated into a car's electronics to prevent drunk driving.
    - 82 percent supported a Congressional mandate for drunk driving prevention technology in all new cars.
- The Infrastructure Investment and Jobs Act (IIJA, Pub. L. 117-58), signed into law on November 15, 2021, directs the U.S. DOT to issue standards for impaired driving prevention technology in all new vehicles.

Advanced Driver Assistance Systems (ADAS):

- According to the AAA Foundation for Traffic Safety, equipping all cars, pickup trucks, vans, minivans and SUVs with forward collision warning (FCW) / automatic emergency braking (AEB) which respond to pedestrians / bicyclists as well as vehicles could prevent 1.9 million crashes, nearly 900,000 injuries, and more than 4,700 deaths annually.[34]
- The IIJA directs the U.S. DOT to issue final rules on minimum performance standards and requirements for ADAS technologies including AEB, FCW, lane departure warning (LDW) and lane keeping assist (LKA). However, the law does not ensure that the technology will be capable of responding to pedestrians, bicyclists and other road users as appropriate, does not include a date certain for rulemaking and compliance for ADAS in passenger vehicles, and does not include Class 3 – 6 trucks for the AEB requirement.[35]

Road Safety Infrastructure Improvements and The Safe System Approach[36]
The Safe System Approach (SSA) assumes that humans will make mistakes and that we must anticipate this and make accommodations to account for limited human injury tolerances through five elements: Safe Vehicles, Safe Road Users, Safe Roads, Safe Speed and Post-Crash Care. By improving the design and operation of roadways to accommodate all road users safely, the SSA seeks to avoid conflicts between road users (drivers of vehicles, motorcycle riders, pedestrians, bicyclists, micromobility riders, wheelchair users and others) and minimize impact forces when they do occur in order to prevent fatalities and serious injuries.

Infrastructure improvements consistent with the SSA to limit conflicts include:

- Curbing speed - This can be accomplished by reducing speed limits, employing automated enforcement to augment traditional enforcement, adding speed humps, using real-time speed feedback signs, performing road diets and installing roundabouts.
- Prioritizing infrastructure to promote safety - This includes changes such as adding lighting and sight lines, leading intervals, pedestrian hybrid beacons, curb extensions, accessible sidewalks, rumble strips, protected intersections, separated bike lanes, and road separations that take into account all users.

Localities can advance these and other infrastructure improvements systemically by requiring their adoption as appropriate in all road design and maintenance projects.

The IIJA includes multiple provisions that advance the SSA including expanded funding for safety infrastructure upgrades. It also provides support and guidance for localities planning to apply for such, permits use of certain federal funds for automated enforcement programs in school and work zones, directs requirements for vehicle safety improvements including crash avoidance technologies, and ensures funds are used to improve vulnerable road user safety.

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