Getting to Zero Alcohol-Impaired Driving Fatalities: A Comprehensive Approach to a Persistent Problem

Alcohol Policy 18, Plenary 1
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As required by the Alcohol Policy 18 Conference, I have signed a disclosure statement and note the following conflict(s) of interest:

None.
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Courtesy of CPNAS
The Committee’s Task

The National Highway Traffic Safety Administration requests that the committee examine:

- which interventions (programs, systems, and policies) are most promising to prevent injuries and deaths from alcohol-impaired driving;
- the barriers to action and approaches to overcome them; and
- which interventions need to be changed or adopted.
Committee Approach

• Public/population health approach
• Methodology
  – Comprehensive literature review to identify most promising interventions
    • Drew evidence from high-quality systematic reviews
• Embraced Vision Zero as a unifying philosophy
• Commissioned background papers on:
  • Data
  • News media
  • Alcohol industry
  • Global lessons
Conceptual Framework

SOCIAL, ECONOMIC, POLITICAL, LEGAL, AND PHYSICAL CONTEXT

INTERVENTION AREAS
- Physical Environment
- Enforcement/Arrest
- Behavior Change
- Clinical Management
- Technology
- Alcohol Environment
- Sociocultural Environment
- Policies and Laws
- Education
- Legal System
- Vehicle Factors

ALCOHOL CONSUMPTION → DRINK TO IMPAIRMENT* → DRIVE IMPAIRED* → MOTOR VEHICLE CRASH → SERIOUS INJURIES & FATALITIES

NOTE: Each of the phases in this figure represent an opportunity to intervene and prevent alcohol-impaired crash fatalities.

*There are alternative behaviors, not represented in these phases of the framework, that would preclude an alcohol-impaired crash fatality (e.g., not drinking and not drinking to the level of impairment).
The Report in Brief: 8 chapters, 16 recommendations

• After decades of progress, **alcohol-impaired driving remains the largest cause of death on roadways** and is a complex, preventable problem that requires a comprehensive, multisector approach. *(Chapter 1)*

• Reducing alcohol-impaired driving requires an understanding of the current alcohol and driving environments. *(Chapter 2)*

• **System-wide interventions** that target different intervention points are needed, including drinking to impairment, driving while impaired, and postcrash and/or arrest events. *(Chapters 3-5)*

• Improvements to existing **data and surveillance systems** would contribute to a greater understanding of the problem and inform targeted solutions. *(Chapter 6)*

• Social movements, community-based approaches, media approaches, and engaging a range of stakeholders all play an important role in **generating sustained action** to reduce alcohol-impaired driving fatalities. *(Chapters 7 and 8)*
Magnitude of the Problem

• Each day, 29 people in the U.S. die in an alcohol-impaired driving crash.

• On average since 1982, 1/3 of all traffic fatalities were from alcohol-impaired driving fatalities.

• 10,497 people were killed in alcohol-impaired driving crashes in 2016.

• 214 children (≤14 years) were killed in alcohol-impaired driving crashes in 2016.
Magnitude of the Problem

- Second-hand effects of alcohol-impaired driving:
  - In 2016, almost 40% of alcohol-impaired driving fatalities were victims other than the drinking driver
  - By comparison, 8.5% of smoking-related deaths due to second-hand smoke

- Economic cost of alcohol-impaired driving crashes in 2010: $121.5 billion
  - Includes medical costs, legal expenses, and property damages

FIGURE 2-1 Fatalities, by role, in crashes involving at least one driver with a BAC ≥0.08%, 2016.
SOURCE: Data from NCSA, 2017b.
Current Environment

- Drivers ages 21–25 are disproportionately involved in fatal alcohol-impaired driving crashes when compared to other age groups.

- Rural areas are disproportionately affected by alcohol-impaired driving crashes and fatalities.

- Alcoholic beverages are now more affordable, of far greater variety, and more widely promoted.

- Inconsistent serving sizes and the combination of alcohol with caffeine and energy drinks undermine individuals’ ability to estimate their level of impairment.

- Per capita alcohol consumption and hazardous drinking are increasing.
Current Alcohol Environment: Binge Drinking

- Binge drinking is strongly associated with alcohol-impaired driving.
- Binge drinking accounts for 85% of alcohol-impaired driving episodes.

Conclusion:
- Policies to reduce binge drinking are also protective against alcohol-impaired driving.
- Adoption of a comprehensive set of effective interventions and population-based strategies that take advantage of synergies across interventions would further reduce binge drinking and related harms.
Committee Recommendations

Every alcohol-impaired driving crash represents a systems failure.

#StopDWideaths
Interventions to Reduce Drinking to Impairment: 
*Increasing Alcohol Taxes*

- Alcohol taxes have strong and consistent evidence base for reducing binge drinking
  - Strong direct evidence shows that higher alcohol taxes reduce alcohol-impaired driving and motor vehicle crash fatalities
- Alcohol taxes have declined in inflation-adjusted terms at both federal and state levels
- Alcohol taxes are considerably less than the alcohol-induced costs
  - Such as health care, lost productivity, or criminal justice costs

*FIGURE 3-2 Average inflation-adjusted specific alcohol excise taxes among U.S. states from 1991 to 2015.*

SOURCE: Naimi et al., 2018.
Interventions to Reduce Drinking to Impairment: 
*Increasing Alcohol Taxes*

Recommendation: Federal and state governments should increase alcohol taxes significantly.
Interventions to Reduce Drinking to Impairment

Recommendation: State and local governments should take appropriate steps to limit or reduce alcohol availability, including:

- restrictions on the number of on- and off-premises alcohol outlets
- days and hours of alcohol sales

Recommendation: To stop illegal alcohol sales (to already-intoxicated adults and underage persons i.e., <21 years old), federal, state, and local governments should:

- adopt and strengthen laws
- dedicate enforcement resources
Interventions to Reduce Drinking to Impairment

Recommendation: Federal, state, and local governments should use their existing regulatory powers to:

– strengthen and implement standards for permissible alcohol marketing content and placement across all media
– establish consequences for violations
– promote and fund counter-marketing campaigns

Conclusion: As part of a comprehensive approach, well-funded media campaigns are an important component of alcohol-impaired driving enforcement policy interventions.

– Campaigns are more likely to be effective when rigorous formative research and behavior change theories inform their design and dissemination.
Alcohol-Impaired Driving Interventions

Recommendation: State governments should enact per se laws for alcohol-impaired driving at 0.05% blood alcohol concentration (BAC).
• The federal government should incentivize this change, and other stakeholders should assist in this process.
• The enactment of 0.05% per se laws should be accompanied by media campaigns and robust and visible enforcement efforts.

– Effectiveness of this policy will be enabled by legislation such as use of sobriety checkpoints, administrative license revocation, and penalties for refusing preliminary breath or blood tests that are equal to or greater than penalties for alcohol-impaired driving offenses.
Alcohol-Impaired Driving Interventions

Recommendation: States and localities should conduct frequent sobriety checkpoints in conjunction with widespread publicity to promote awareness of these enforcement initiatives.

Finding: The available evidence on designated driver programs is insufficient to determine whether they are effective in reducing alcohol-impaired driving or crashes.
Postcrash and Arrest Interventions

Recommendation: Every state should implement DWI courts, guided by the evidence-based standards set by the National Center for DWI Courts.

– All DWI courts should include available consultation or referral for evaluation by an addiction-trained clinician.

Recommendation: All health care systems and payers should cover and facilitate effective evaluation, prevention, and treatment strategies for binge drinking and alcohol use disorders including:

– screening, brief intervention, and referral to treatment (SBIRT)
– cognitive behavioral therapy
– medication-assisted therapy
Postcrash and Arrest Interventions

Recommendation: All states should enact all-offender ignition interlock laws to reduce alcohol-impaired driving fatalities.

- An ignition interlock should be required for all offenders with a BAC above the limit set by state law.
- To increase effectiveness, states should consider increased monitoring periods based on the offender’s BAC or past recidivism.
Data and Surveillance Needs and Opportunities

Recommendation: To facilitate surveillance of alcohol-impaired driving that is timely, ongoing, concise, and actionable, NHTSA should convene a diverse group of stakeholders that includes academic researchers, law enforcement, city and state public health, transportation sector, and other federal agency representation to:

- create and maintain a metrics dashboard
- publish brief, visually appealing quarterly and annual national and state-by-state reports that analyze and interpret progress in reducing alcohol-impaired driving

FIGURE 6-1 Indiana daily crash prediction map. Source: Indiana State Police and Indiana Management Performance Hub, 2017.
Generating Action

Conclusion: Alcohol companies and alcohol-related businesses could assist efforts to reduce alcohol-impaired driving fatalities by:
- reducing the alcohol content of existing products
- refraining from marketing including sponsorships that are likely to influence excessive alcohol use
- supporting or at least not opposing effective alcohol-impaired driving countermeasures
Generating Action

Recommendation: NHTSA should create a federal interagency coordinating committee to:

- develop and oversee an integrated strategy for reducing alcohol-impaired driving
- assure collaboration
- maintain accountability
- share information among organizations committed to reducing alcohol-impaired driving
Conclusion: To achieve the goal of zero alcohol-related crash fatalities, a systematic multipronged approach with clear roles and accountabilities across sectors (including public health, transportation, law enforcement, and health care providers, among others) is needed.
Thank you!

For the report and related resources, see: http://www.nationalacademies.org/StopDWIdeaths

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