



# REPORTER

The Newsletter of The International Council on Alcohol, Drugs & Traffic Safety

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The new year is bringing important activities for ICADTS.

### Election of the ICADTS Executive Board

First, it is time once again to elect members of the ICADTS Executive Board. In September, the current President Elect (Jan Ramaekers) will take over as President, the Assistant Secretary (Edward Ogden) and Assistant Treasurer (Sjoerd Houwing) will take over as Secretary and Treasurer. We will elect their replacements as well as two new Board Members at Large. The nominations committee, headed by Past President Mary Sheehan, is now assembling a slate of candidates. Please contact her by March 31 at [m.sheehan@qut.edu.au](mailto:m.sheehan@qut.edu.au) to nominate members to run for these positions – or to volunteer yourself.

### Regional conference in Prague

The year ahead will also include a regional conference in Prague, Czech Republic on September 1-4 sponsored jointly with our colleagues at Czech Transport Research Centre (CDV). ICADTS has sponsored these conferences in recent years to foster activities between our triennial conferences and to make it easier for participants from nearby countries to attend. Last year’s conference in Bled, Slovenia was very successful and attracted presenters and attendees from several European countries as well as North America and Australia. See the article on page 3 for more details about this exciting event and go to <https://www.cdv.cz/icadts-en/>

### Strategic Planning Committees

Be sure to volunteer to participate in one of the three ICADTS Strategic Planning Committees. You will be receiving an email describing each of the committees and inviting you to join.

Warm regards to all,

Kathryn Stewart  
ICADTS President

## REENGINEERING ENGINEERING – FROM THE INSIDE OUT LOOKING FORWARD TO T2019

In traffic safety, engineering is a foundational element that can directly impact the consequences of road user behavior. Yet, when a road user is involved in a motor vehicle crash, traditional views place the blame on them. By simply moving away from viewing these events as random accidents instead of crashes, a new way of looking at the problem can start to take shape.

Thanks to our Australian colleagues, we have a picture in our office of a vehicle that struck a tree on the side of the road, but rather than ask why the driver ran into the tree, they ask a different question, why was there a tree on the side of the road? Many years ago, planting trees at the roadside was common and likely no one could predict that vehicles travelling at high rates of speed would be susceptible to crashing into trees that have now grown to be over a metre wide. While it may have been difficult to foresee something like this a century or more ago, we are now living in a near real time world and likely need to be fluid enough to solve these problems in near real time and strategically be prepared for new iterations.

[www.icadtsinternational.COM](http://www.icadtsinternational.COM)

The International Council on Alcohol, Drugs & Traffic Safety (ICADTS) is an independent nonprofit body whose only goal is to reduce mortality and morbidity brought about by misuse of alcohol and drugs by operators of vehicles in all modes of transportation.

## T2019 (Continued)

### The New Frontier

So for the sake of thinking differently, how would an *autonomous or connected* human being be safer in a world where there are many hidden or unknown risks? We know autonomous vehicles are collecting, analyzing and navigating roadways safely, how could we do the same? Perhaps everyone travels with a tricorder that identifies alcohol and drug risk based on our own personal characteristics. Why have an instrument in a vehicle or used by law enforcement when our own personal safety device (PSD) could immediately calculate risk from alcohol or drugs? Even better, any combination of alcohol or drugs could immediately be analyzed and risk to the human owner identified.

Being proactive would be the preferred method of identifying risk; however, being human also means making mistakes and taking chances. With the proliferation of personal fitness devices, how close are we to having a personal, real time health device that could inform their human hosts of detected risks from alcohol and/or drugs? In an autonomous sense, this would make the owner aware so they can get help; however, could a personal fitness device alert medical help even when the host can no longer do so? If the answer is yes, this could lead to saving lives in real time through connected technology, activated with a GPS location, when alcohol and/or drugs have impaired the host in a manner that could cause serious injury or death.

We are not far from a world that uses machine learning to help with medical treatment. How could we engage these advanced intelligence systems to help identify addiction risk, drug overdose risk, or simply impaired cognitive ability to take care of ourselves? With the proliferation of data that is collected to entice us to use alcohol and drugs, understand our habits and preferences, and market to our interests, can we reengineer the process so that we know what our risks are and when they could happen? Even if we know what they are and make a mistake, could an autonomous or connected PSD save us? Like the trees on the side of the road, alcohol and/or drugs can lead to crashes resulting in serious injuries or death; perhaps it's time to reengineer from the inside out.

Implementation of strategies like these may seem far in the future, but as traffic safety professionals we need to anticipate new techniques and technologies. We invite you to discuss these ideas and more at T2019.

Gerry Shimko and Laura Thue

## TRB HOSTS MEETING ON “TRAFFIC SAFETY IMPLICATIONS OF INCREASING CANNABIS USE”

The mid-year meeting of the Transportation Research Board's Committee on Alcohol, Other Drugs and Transportation took place in August 2017 in Woods Hole, Massachusetts. It included presentations on impairment and crash risk due to cannabis use, indicating the complications and difficulties of establishing what the impact of cannabis use on traffic safety is and how it will change with increasing legalization and availability. A recent case controlled study that showed no increased risk from cannabis use was discussed. Representatives and researchers from law enforcement presented some of the challenges faced in enforcing laws related to driving while impaired by cannabis. The ongoing development of a field sobriety test specifically for cannabis was discussed. The further challenges for prosecutors and judges faced with an increased number of cases of drivers impaired by cannabis were also discussed. Issues related to laboratory testing and toxicology were covered. Research on public attitudes and awareness of drugged driving issues was presented. The workshop concluded with a discussion of how states might revise their statutes to deal more appropriately with the impaired driving risks associated with cannabis legalization. Data and research needs were identified and prioritized.

For a summary of the workshop discussions, contact Tara Kelley-Baker at [tkelleybaker@aaafoundation.org](mailto:tkelleybaker@aaafoundation.org).



Editors:  
Kathryn Stewart  
Email: [Stewart@pire.org](mailto:Stewart@pire.org)  
James Fell  
Email: [fell-jim@norc.org](mailto:fell-jim@norc.org)  
[www.icadtsinternational.com](http://www.icadtsinternational.com)

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## ICADTS REGIONAL CONFERENCE IN PRAGUE: 1-4 SEPTEMBER 2018

On behalf of The International Council on Alcohol, Drugs and Traffic Safety (ICADTS) and Czech Transport Research Centre (CDV) we would like to invite you to the International Conference on Alcohol Drugs and Traffic Safety in the beautiful city of Prague, the Czech Republic.

With a theme of "*Current trends and challenges in alcohol, drugs and traffic safety*", the ICADTS conference will provide an excellent program of workshops, keynote speakers and oral and poster presentations. The ICADTS conference will take place in the lovely and historic Břevnov Monastery in Prague. The conference is organized by CDV in close cooperation with ICADTS and Ministry of Transport of the Czech Republic.

Stakeholders and experts will present and discuss the latest research in the traffic safety and health area. The conference is open for all experts, researchers and stakeholders from the areas of public health and safety, traffic and transport psychology, law, medicine, economics, law enforcement, public policy, education, pharmacology, toxicology, forensic science, human factors, and alcohol intervention and rehabilitation.

A pre-conference workshop on "THC and its influence on fitness to drive" will take place on September 1 followed by the formal conference opening on September 2. The program will conclude at midday on September 4.

A variety of interesting and historic tours and activities are planned as part of the conference – including a tour of the monastery brewery and Prague sightseeing tour.

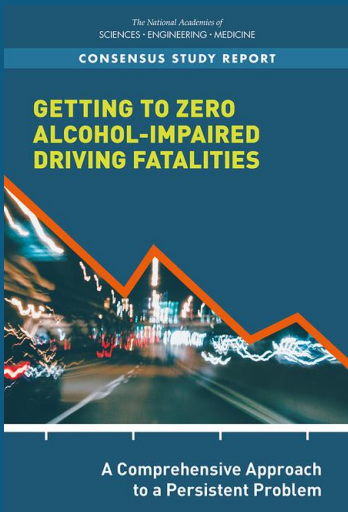
Further details on submitting abstracts and conference registration will be posted soon on the conference website: <https://www.cdv.cz/icadts-en/>

## U.S. NATIONAL ACADEMIES RELEASE REPORT ON IMPAIRED DRIVING

Despite decades of progress, more than 10,000 alcohol-related driving fatalities occur in the U.S. each year, and that number is increasing. Alcohol impairment remains a leading cause of traffic deaths: Approximately 30% involve 1 or more drivers with a blood alcohol concentration (BAC) above state limits for driving ( $BAC \geq .08$  g/dL), and 33% involve a BAC above 0. To identify ways of reinvigorating efforts to reduce this trend, the U.S. National Highway Traffic Safety Administration asked the National Academies of Sciences, Engineering, and Medicine to form a committee to study the problem. The committee's report makes recommendations based on that study. The report, entitled *Getting to Zero Alcohol Impaired Fatalities: A Comprehensive Approach to a Persistent Problem*, describes many factors leading to impaired driving and how they can be eliminated; the required stakeholders; and how to motivate individuals, communities, and decision makers to solve the problem.

The report describes a set of interventions already shown to be highly effective and some promising or emerging opportunities. These include policy interventions, such as increasing alcohol excise taxes; enhanced enforcement, such as sobriety checkpoints and drug courts; engineering solutions, such as ignition interlocks; clinical interventions, such as screening, brief intervention, and referral to treatment and effective treatment of alcohol use disorders; and, potentially in the future, the Driver Alcohol Detection System for Safety (DADSS), a passive alcohol detection ignition interlock system that could be installed in all new vehicles.

The report highlights alcohol taxes as a highly effective strategy for reducing binge drinking, which is the substrate for impaired driving, and substantial direct evidence suggests that higher taxes and prices reduce alcohol-impaired crashes and fatalities.



## U.S. NATIONAL ACADEMIES REPORT (CONT.)

The report also emphasizes the potential effectiveness of lowering the illegal blood alcohol content for driving from the current 0.08% in the U.S. In most developed nations, driving with a BAC of 0.05% or higher is illegal. The report recommends this standard for the United States as well. The public health case is compelling: Laboratory and epidemiologic studies demonstrate that functional impairment and increased risk begin well below 0.08%, and most studies show decreases in crashes and fatalities when legal limits are lowered to 0.05%. In the United States, Utah passed the first 0.05% law, but its details have not been finalized, and it continues to face opposition from the alcohol industry.

The report discusses ignition interlocks—recommending mandating interlocks for all DUI convictions, including first convictions, and keeping them installed for a minimum of 2 years. However, most alcohol-impaired crash fatalities are caused by drivers without a prior DUI conviction, which limits the public health reach of this intervention. Thus, mandatory installation of the Driver Alcohol Detection System for Safety in new vehicles is a promising primary prevention strategy that would benefit not only the would-be drinking driver but also others on the road. However, before widespread use, further improvements in technology and pricing commensurate with universal adoption are required.

The report also addresses perhaps the largest barrier to progress: lack of public interest and political will to make the systemic changes required for large reductions in alcohol-impaired crash fatalities. Action on these fronts is usually driven by strong coalitions of respected community members and groups, which interact with governments and often private enterprise to effect change.

To view the full report, go to <https://www.nap.edu/catalog/24951/getting-to-zero-alcohol-impaired-driving-fatalities-a-comprehensive-approach>

Source: Eliminating Alcohol-Impaired Driving Fatalities: What Can Be Done? Steven M. Teutsch, MD, MPH, and Timothy S. Naimi, MD, MPH, *Annals.org*, 17 January 2018.

## UNDERSTANDING THE CONTEXT OF ALCOHOL CONSUMPTION FOR CRASH-INVOLVED DRIVERS IN SOUTH AUSTRALIA

Despite a discernable shift in public acceptability of alcohol impaired driving, it continues to be a major contributor to death and serious injuries on South Australian roads. A recent report published by the University of Adelaide Center for Automotive Research examines the context of alcohol consumption prior to crashes. Closed Coroner's files for fatal crashes in South Australia from 2008 to 2010 were investigated with the aim of understanding the social context and circumstances surrounding alcohol consumption prior to crash involvement for drivers or riders with an illegal BAC. Official traffic offence records of drivers were also reviewed.

Of the 284 fatal crashes included in the study, 34% (n=95) involved a driver or rider with an illegal BAC. The demographic and crash characteristics of drivers with an illegal BAC were compared with those of drivers with a legal BAC, to reveal the following findings:

- Drivers with an illegal BAC were more likely to be male, indigenous Australians, hold a provisional licence or be unlicensed, incur fatal injuries, and not wear a seat belt than drivers with a legal BAC. One in four drivers with an illegal BAC tested positive for drugs.
- Drivers with an illegal BAC were more likely to be involved in a single vehicle crash, crash in a remote area, at night time and on weekends than drivers with a legal BAC.
- During the trip undertaken at the time of the fatal crash, drivers with an illegal BAC were most frequently travelling back home, just less than half were carrying one or more passengers, and crashes most commonly occurred within five kilometres or five minutes from the beginning of the trip.



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## ALCOHOL CONSUMPTION FOR CRASH-INVOLVED DRIVERS IN SOUTH AUSTRALIA (CONT.)

- Alcohol was most frequently imbibed by drivers in rural and remote areas, at others homes and as part of normal social activities with friends. Beer and spirits were the type of alcohol most frequently consumed with drinking sessions predominantly lasting for four hours or more in which 10 or more standard drinks would commonly be consumed. Drivers recorded high BAC levels with a mean of 0.173g/100ml. Despite these high levels, many friends or vehicle occupants who spent time with the driver prior to the crash did not perceive the driver was intoxicated or underestimated the level of intoxication.
- 23% of drivers were found by the Coroner to be experiencing psychological issues at the time of the crash and over 7% were known to be alcohol dependent.
- Drink driving recidivism continues to be an issue. 44% of drivers with an illegal BAC recorded at least one prior alcohol offence with the majority of these within five years of the fatal crash. Research indicates that alcohol interlock schemes might be an effective means of preventing drink driving while they are installed but some challenges remain.

The findings from this study have important implications for the development of drink driving campaigns and interventions and will inform police alcohol enforcement strategies in South Australia.

To see the full report, go to <http://casr.adelaide.edu.au/publications/list/?id=1606>

## ROBERT VOAS RETIRES (?!?) AFTER 50 YEARS IN TRAFFIC SAFETY

Our long-time friend and colleague, Robert Voas, is retiring, sort of, at the youthful age of 90. Bob has been involved with ICADTS for many years and served as President. He has received both the Widmark and Haddon Awards.

Bob has had a varied career. He was drafted into the fledgling NASA in 1958 and became the person directly responsible for selection of the original seven Mercury Astronauts and played a supervisory role in their training. After his NASA years, Bob worked closely with Sargent Shriver in the formation of the U.S. Peace Corps, the agency that would come to represent the generosity of spirit within America's post-war generation.

For 50 years, Bob has been at the forefront of the development of technologies that can aid in DUI detection and apprehension. Early in his traffic safety career, he served as the Chief of the Office of Evaluation at the National Highway Safety Bureau, the predecessor agency to NHTSA. There, among other things, he argued as early as 1968 that we should begin to apply our space-age technology to help solve some of our nagging social problems. Working with Dr. Robert Borckenstein in the development of a standard for breath testers, Bob co-authored a congressional report identifying problem drinkers as the primary cause of alcohol-related fatal crashes. This report led Congress to support the development of a national effort to deal with the problem drinker and, as the Bureau's scientist responsible for alcohol safety. Based on Bob's work, the Alcohol Safety Action Projects (ASAPs) were initiated in 35 communities with Bob as the deputy program manager in charge of its evaluation. In 1969, Bob discovered the first electronic portable breath testers (PBTs) being produced by Lion Laboratories, Inc., which he later used in the ASAP roadside survey programs. Bob also launched studies evaluating the use of Standardized Field Sobriety Tests (or SFSTs), which NHTSA formally adopted as a national model for law enforcement use. In addition, he proposed the development of a passive alcohol sensor (PAS) that did not require the suspect's cooperation. Many police officers now carry a flashlight fitted with a passive alcohol sensor.

For more than 37 years, Bob has worked as a Senior Research Scientist with Pacific Institute for Research and Evaluation, where he has been responsible for designing and conducting much of the seminal research in the impaired driving field. There, he has also served as mentor to many young scientists.

We are reliably informed that, while Bob is being honored at a retirement party, he will still maintain an advisory role in several projects and cannot really be said to have fully retired



## UPCOMING EVENTS

### Alcohol Policy 18

11-13 April 2018  
Arlington Virginia USA  
[www.alcoholpolicyconference.org](http://www.alcoholpolicyconference.org)

### Lifesavers National Conference on Highway Safety Priorities

22-24 April 2018  
Austin, Texas USA  
[www.lifesaversconference.org](http://www.lifesaversconference.org)

### Alcohol Interlock Symposium

19-21 August 2018  
Austin, Texas USA  
[www.interlocksymposium](http://www.interlocksymposium)

### ICADTS Regional Conference *Current trends and challenges in alcohol, drugs and traffic safety*

1-4 September 2018  
Prague, Czech Republic  
<https://www.cdv.cz/icadts-en/>

### Deutschen Gesellschaft für Verkehrsmedizin (DGVM) Deutschen Gesellschaft für Verkehrspsychologie (DGVP)

28-29 September 2018  
Saarbrücken, Germany  
[www.verkehr-symposium.de](http://www.verkehr-symposium.de)

### T2019

18-21 August 2019  
Edmonton, Alberta Canada  
[www.t2019.org](http://www.t2019.org)

To view past issues of the Reporter, go to

<http://www.icadtsinternational.com/pages/icadts-reporter.php>



## REPORT ON MARIJUANA AND DRIVING IN CANADA

The Traffic Injury Research Foundation (TIRF) has published a fact sheet, sponsored by State Farm Insurance, examining the role of marijuana in collisions involving fatally injured drivers in Canada between 2000 and 2014. Data from TIRF's National Fatality Database were used to prepare this fact sheet which explores trends in the use of marijuana among fatally injured drivers, and the characteristics of these drivers. Other topics that are examined include the presence of different categories of drugs among fatally injured drivers in different age groups, and the combined presence of marijuana and alcohol among this population of drivers.

To view the report, go to: <http://tirf.ca/wp-content/uploads/2017/11/Marijuana-Use-Among-Drivers-in-Canada-2000-2014-8.pdf>

## EVALUATION OF ENFORCEMENT PROGRAM IN MARYLAND

Alcohol impaired driving is a significant factor in fatal and serious injury producing crashes in the United States and many other countries. In 2013, the State of Maryland implemented an anti-driving under the influence (DUI) enforcement program, called the State Police Impaired Driving Reduction Effort (SPIDRE). This enforcement effort consisted of a select team of seven police officers from the Maryland State Police who engaged in high intensity DUI enforcement. The purpose of this evaluation was to determine the impact of the SPIDRE program on impaired driving crashes, DUI arrests, DUI adjudicative outcomes, and public perceptions of DUI enforcement.

Data from alcohol-related crashes, arrests, and adjudicative outcomes of those arrests were used, along with data obtained from public opinion and bar patron surveys, to compare counties where the SPIDRE program operated and non-SPIDRE counties where it did not. The evaluation period extended from 2010 – 2016 in monthly intervals.

There was no significant reduction in alcohol-related crashes as reported by the police associated with the SPIDRE program. However, there was a statistically significant decrease in the ratio of single vehicle nighttime to multiple vehicle daytime crashes in the SPIDRE counties, but not in any other counties, suggesting a positive effect using this surrogate measure of impaired driving crashes. The specific comparison counties as well as the other non-SPIDRE counties in Maryland experienced a statistically significant decrease in DUI arrests during the evaluation period, whereas the SPIDRE counties did not show such a decrease. Further, the arrests made by the SPIDRE team resulted in a significantly higher rate of positive adjudicative outcomes than arrests made by non-SPIDRE officers in those counties where the SPIDRE team operated. There was no evidence that the public was more aware of DUI enforcement efforts in the SPIDRE counties than in the non-SPIDRE counties. Conclusions: The SPIDRE program appeared able to prevent a downward trend in DUI arrests, experienced by the rest of the state, and achieved higher quality arrests resulting in more positive adjudicative outcomes. The way in which the SPIDRE team was deployed may have lacked sufficient duration and intensity (e.g., only 2–3 months of activity in any given county) to achieve a substantial reduction in police-reported alcohol-impaired driving crashes. It is recommended that the SPIDRE team increase its enforcement activities for at least 9–12 consecutive months in the county where they are employed.

Source: Beck, K., Fell, J., and Kearns, T. Evaluation of Maryland's State Police Impaired Driving Reduction Effort (SPIDRE), December 2017, *Traffic Injury Prevention*

## NOMINATIONS OPEN FOR ICADTS EXECUTIVE BOARD

Members are advised that elections for office bearers will be conducted soon. We are calling for nominations for the positions of: President Elect; Assistant Secretary (Ex-Officio); Assistant Treasurer (Ex-Officio); Members-At-Large (2). Please send nominations to Mary Sheehan at [m.sheehan@qut.edu.au](mailto:m.sheehan@qut.edu.au) no later than March 31, 2018.