



REPORTER

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

MESSAGE FROM THE ICADTS PRESIDENT

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Dear ICADTS members,

I hope you are enjoying the new year and carry faith that the pandemic will be over soon. Some ICADTS board members have already received their 1st vaccination so it is up to rest of us to follow.

The board was very pleased with the response rate to the online survey on COVID-19 and road safety. We received over 100 responses with 30 reporting that they are doing work related to COVID-19 in their country. In addition, the online membership meeting on December 11 during which ICADTS board member Evelyn Vingilis as well as Amy Berning (NHTSA) presented some of their recent research initiatives on COVID-19, was well attended. Given the strong interest in the topic, the board has decided to host a symposium on COVID-19 and traffic safety for which the membership will be invited to contribute and where findings of the ICADTS survey will be presented. A call for proposals appears below. The date for the symposium has been set at September 1, 2021.

During the online meeting with the membership, the ICADTS board also explained their intention to change the constellation of future boards in order to increase involvement of members of low and middle-income countries as well as young scientists. This proposal has been put to an online vote in December 2020 to all ICADTS members who, almost unanimously, accepted the proposal. The Constitution and By-laws have been adjusted accordingly and can now be found on the ICADTS website in the member section. This constitutional change therefore has gone into effect and will already apply to the next election of board members in the course of this year.

I would like to remind our membership that the call for symposia for [T2022](#) is currently open. The total time of 1.5 hours per symposium can be divided between established investigators in the field and early-career researchers. It provides an excellent opportunity to focus on specific research topics and to bring together senior and early career researchers. We look forward to receive your contribution!

Kind regards,
Jan Ramaekers
President ICADTS

THE EFFECT OF COVID-19 ON ALCOHOL, DRUGS AND ROAD SAFETY

In March 2020, the World Health Organization declared SARS-CoV-2 (COVID-19) a world-wide pandemic. Growing evidence suggests that the pandemic has been affecting road transportation and safety in various ways. To develop an understanding of how COVID-19 is affecting alcohol, drugs and traffic safety, the International Council on Alcohol, Drugs and Traffic Safety (ICADTS) is organizing a second virtual half-day Symposium on this topic. The first was held on December 11, 2020.

The second virtual Symposium is being held on September 1, 2021. It hopes to bring together leading researchers and practitioners in the field to share their research results on the theme of **COVID-19 effects on alcohol, drugs and road safety.**

ICADTS members and other prospective presenters are invited to submit an abstract describing their work on any area of COVID-19 effects on alcohol, drugs and road safety. The deadline for submission of abstracts is June 1, 2021. Applicants will be notified of acceptance by July 1, 2021.

To submit an abstract, go to [Abstract Form ICADTS Symposium Sept 1 2021 \(jotform.com\)](#). If you have questions, email Evelyn Vingilis at evingili@uwo.ca

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.

ALCOHOL IGNITION INTERLOCK USE RATES FOLLOWING CHANGES IN INTERLOCK LEGISLATION



Ignition interlocks are effective at preventing driving under the influence (DUI) of alcohol while installed on vehicles. However, the rate of interlock use is low relative to the numbers of DUI arrests and convictions, even in States that mandate interlock use for all DUI offenders. Accordingly, there is interest in identifying ways to increase interlock use, including by expanding the types of offenses for which an offender is eligible or required to use an interlock. This study examined how changes to interlock law affected interlock use in Florida and West Virginia. Each State had expanded the types of DUI offenses that result in mandatory or voluntary use of an interlock. The study compared the number of new interlock installations, interlocks-in-place (interlocks currently installed), installations as a proportion of those eligible to use interlocks, and lack of use or low use of the vehicles with interlocks, before and after the States modified their laws. The analyses found statistically significant increases in interlock use in both States after changes were made to their interlock laws. The Florida data showed increases of 21.8 percent in all DUI offenders mandated to install; 69 percent in first offenders mandated to install; 122.3 percent more installations overall; and 27.8 percent more installations for first offenders mandated to install. The West Virginia data showed an increase of 242 percent in interlock installations after a 2010 change in the interlock law, and an increase of 60 percent after a 2014 change to interlock law; however, the measure “interlocks-in-place” did not reveal changes, which may be due to limitations in the data used to capture the number of installations and removals. The results showed an increase in interlock installations after changes to the DUI law expanded the types of DUI offenses, such as a “high-BAC” offense, that mandate or permit as an alternative sanction, interlock use. This outcome, though not surprising, suggests that previously some offenders avoided enrolling in interlock programs. Results also showed that barriers to interlock use can emerge when the law requires that offenders fulfill obligations unrelated to their DUI charge to qualify for interlocks program, such as paying past fines or child support. Finally, the study highlights the importance of interlock data systems for States to track trends in interlock use and evaluate interlock programs

Source: **McKnight, A. S., & Tippetts, A. S.** (2020, November). *Alcohol ignition interlock use rates following changes in interlock legislation* (Report No. DOT HS 812 989). National Highway Traffic Safety Administration. <https://rosap.ntl.bts.gov/view/dot/53774>

IMPLEMENTING NON-INTRUSIVE ALCOHOL DETECTION IN VEHICLES

Progress has been made in reducing the toll of impaired driving through interventions that attempt to discourage driving while intoxicated (DWI) and reoffending among drivers who have been convicted of DWI. However, these approaches cannot eliminate the problem. In-vehicle technologies are being developed, such as the Driver Alcohol Detection System for Safety—commonly referred to as DADSS—that have the potential to prevent alcohol-impaired drivers from driving their vehicles.

DADSS in-vehicle sensors are designed to quickly detect whether drivers have been drinking and accurately and precisely measure blood or breath alcohol concentration. If the driver’s alcohol concentration measures at or above a set limit, the vehicle will be prevented from moving. The DADSS technology is expected to be ready for real-world applications in the next few years. The implementation of this technology in vehicles promises to prevent thousands of deaths and injuries every year. A recent paper investigates approaches that have been used in various countries to accelerate the deployment of innovative vehicle safety technologies beginning with its initial implementation in vehicles through to its more widespread use.

Various approaches were identified that can smooth and accelerate the deployment of in-vehicle alcohol detection devices. Recommendations are made regarding the most promising approaches to use initially and over time, as the body of evidence regarding their effectiveness grows. Possible strategies include targeted mandates, for example for government fleets or private companies and voluntary, market-based deployment through which automakers could offer DADSS as optional equipment on new vehicles to provide an opportunity to sample the technology, gain experience with it, and expand the evidence of reliability, ease of use, and efficacy.

Source: Susan A. Ferguson & Natalie A. Draisin (2020) Strategies for accelerating the implementation of non-intrusive alcohol detection systems in the vehicle fleet, Traffic Injury Prevention, DOI: [10.1080/15389588.2020.1836367](https://doi.org/10.1080/15389588.2020.1836367)

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ROAD TRAFFIC INJURIES IN MALAWI WITH SPECIAL FOCUS ON THE ROLE OF ALCOHOL

By Asbjørg S. Christophersen, Elin H. Wyller, Mads Sundet, Stig Tore Bogstrand, and Hallvard Gjerde (Norway).

Malawi is located in southeastern Africa and has about 18 million inhabitants. It is one of the world's poorest countries and among the 10 worst in terms of road traffic fatalities, with more than 30 deaths per 100 000 inhabitants per year [1]. The role of alcohol is not known. The legal BAC limit is 0.08 g/L.

The United Nations (UN) declared in 2010 the “Decade of Action for Road Safety, 2011-2020”, with the objective to halve the number of road traffic crash (RTC) deaths [2] in line with Sustainable Development Goal 3, target 3.6. During this period, fatal crashes have decreased in high-income countries, while they have increased in low- and middle-income countries (LMIC) [1].

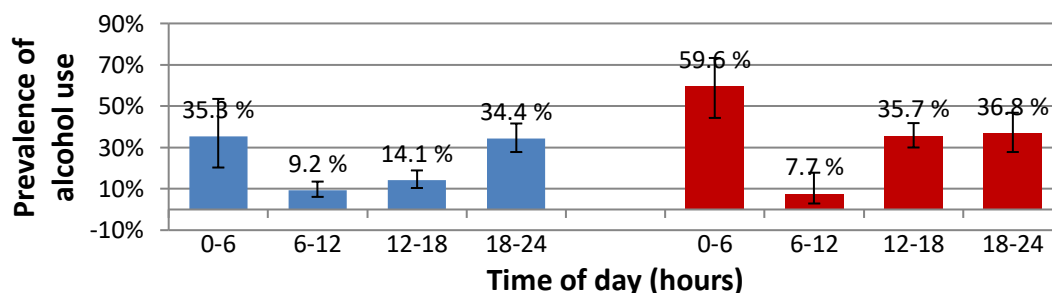
Our planning of an investigation of alcohol related road traffic crashes (RTCs) in Malawi started in 2014 with support from the ICADTS Board. The application for funding was sent to the World Bank's (WB) Global Road Safety Facility (GRSF), a multi-donor fund established to help governments develop road safety management capacity in LMIC, which approved our application. In addition to GRSF and the ICADTS Foundation, some support was received from the Norwegian Council for Road Safety. The study was performed as a collaboration between Kamuzu Central Hospital (KCH), the largest hospital in Malawi, the Norwegian Institute of Public Health (NIPH), and the Oslo University Hospital (OUH). This was the first time alcohol was measured among patients injured in RTCs in Malawi.

Aim: The objective was to generate new knowledge about alcohol related RTC injuries, train hospital employees to conduct alcohol-testing, and to develop a database on patients involved in RTCs, which in turn may contribute to future policymaking to reduce RTCs.

Methods: Injured road users (motor vehicle drivers, motorcyclists, moped riders, ox cart drivers, cyclists, passengers, pedestrians) at least 18 years of age, admitted to the Emergency Department at KCH during a three months' period in 2019, were asked to participate in the study, which was voluntary and anonymous. The patients were informed about the project both orally and through a written leaflet in English or Chichewa. An informed consent form was signed. All weekdays, weekends and nights were covered. Alcohol was measured using a breathalyzer (Dräger Alcotest 5820) or a saliva test (Q.E.D.®) for those not able to blow. The patients were asked about alcohol use before the crash. The alcohol data was based on whether the patients had positive breath or saliva tests, or self-reported alcohol use before the crash. All results and information about the patients, circumstances of the crashes, geographical site of the crash, and hospital treatment, were recorded in an electronic database.

Ethical approval: The project was approved by the National Health Sciences Research Committee in Malawi. A Data Protection Impact Assessment was performed in accordance with European regulations and approved by NIPH.

Results: Of the 1251 patients who participated in the study, representing about 95% of those who were asked, about 25% tested positive for alcohol or reported alcohol use before the crash (21-24% among different groups of motor vehicle drivers, 19% among bicyclists, 42% among pedestrians, and 20% among passengers). The highest prevalence of alcohol was found among patients aged 25-44 years (26-27%) and lowest among those 45 years and older (20%). A higher prevalence of alcohol was found among patients with no formal education (33%) and lowest among patients with college or university education (22%). Patients injured during weekend night crashes, showed the highest prevalence of alcohol, followed by those injured during weekend evenings (red bars in figure below) and weekday nights (blue bars below).



MALAWI REPORT CONTINUED

BACs at the time of injury were estimated by back-calculation in accordance with forensic medicine practices for road users who were tested for alcohol within five hours after injury. About 15% of injured motor vehicle drivers/riders had BACs above the legal limit at the time of the crash. These findings show the importance of focusing on drivers who often carry passengers.

Map registrations of the injuries showed several geographical hotspots within the capital. There were different geographical clusters for bicycle crashes, motorcycle crashes, pedestrian injuries, and car crashes.

The study found that the use of reflective devices in the dark and helmets for cyclists was almost non-existent.

The project culminated with a virtual seminar organized by the WB. Representatives from several Malawian ministries, hospitals, organizations, the Norwegian Embassy and Malawian press were invited to participate.

More detailed results have been published in scientific journals [3, 4].

Recommendations

1. Authorities should consider lowering the BAC legal limit to 0.05% in accordance with recommendations from WHO. Any changes must be followed by sustained and widely disseminated information and educational campaigns.
2. For drivers carrying passengers, a lower legal BAC limit should be considered.
3. Adequate resources need to be allocated to traffic police for more effective enforcement of the BAC limit.
4. Safety improvement of hotspots found from mapping registrations should be prioritized.
5. The police should focus their controls on periods with high frequency of alcohol related crashes, primarily weekend and weekday nights. The police must be provided with necessary testing equipment.
6. Reflective gear for pedestrians should be recommended and provided, as well as installment of road lighting, speed calming measures, and safer pedestrian crossings.
7. Data from this study should be disseminated, shared and discussed by Malawian stakeholders from different sectors: health, transport, police and education.
8. Authorities representing health, transport, police and education should develop plans for a comprehensive information and educational campaign on alcohol use as an important risk factor for road traffic safety. Radio, newspapers, TV programs and other type of informational media need to be engaged in such campaigns.
9. Corruption must be avoided and replaced with a Culture of Road Safety that joins forces across sectors to combat drunk driving and injurious and fatal RTCs.

References

- 1 WHO. Global Status Report on Road Safety 2018. Geneva, Switzerland: World Health Organization; 2018. Available from: https://www.who.int/violence_injury_prevention/road_safety_status/2018/en/
- 2 WHO. Global Plan for the Decade of Action for Road Safety 2011-2020. https://www.who.int/roadsafety/decade_of_action/
- 3 Sundet M, Kajombo C, Mulima G, Bogstrand ST, Varela C, Young S, Christophersen AS, Gjerde H. Prevalence of alcohol use among road traffic crash victims presenting to a Malawian Central Hospital: a cross-sectional study. *Traffic Injury Prevention* 2020;21(8): 527-532. <https://doi.org/10.1080/15389588.2020.1819990>
- 4 Sundet M, Mulima G, Kajombo C, Gjerde H, Christophersen AS, Young A. Adult pedestrian and cyclist injuries in Lilongwe, Malawi: a cross sectional study. *Malawi Medical Journal*, 2020; 32(4) (e-pub). <https://www.mmj.mw/adult-pedestrian-and-cyclist-injuries-in-lilongwe-malawi-a-cross-sectional-study-2/>

EVALUATION OF MYSTERY SHOPPER PROGRAM TO REDUCE ALCOHOL SALES TO MINORS IN MEXICO

A recent paper reports the results of a quasi-experimental evaluation of a mystery shopper intervention in Zacatecas and Guadalupe, Mexico. Underage youth attempted to purchase beer at 50 Modelorama stores and 32 Oxxo stores (intervention groups), and at 19 comparison convenience stores in March, July, and August 2018. After each attempt, intervention store operators were informed if a sale was made. Modelorama operators also received training and were warned that repeated sales to minors could jeopardize their franchise. Average sales rates to minors were 63.8% at Modeloramas, 86.5% at Oxxo stores, and 98.2% at comparison stores. The findings suggest that mystery shopper interventions with training, feedback to store operators, and sanctions after repeated sales to underage youth may reduce sales to minors in low- and middle-income countries.

Source: *Journal of Drug Education*, Evaluation of a Mystery Shopper Intervention to Reduce Sales of Alcohol to Minors in Zacatecas and Guadalupe, Mexico, M.J. Paschall, et al.
<https://doi.org/10.1177/0047237920981776>

COMMUNITY LEVEL ALCOHOL PREVENTION IN CALIFORNIA

A recent paper describes a trial assessing the effects of a community-level alcohol prevention intervention in California on alcohol-related motor vehicle crashes. A total of 24 California cities with populations between 50,000 and 450,000 were chosen at random and roughly matched into pairs before randomly assigning 12 each to the intervention and control conditions.

The intervention, aimed at reducing excessive drinking among adolescents and young adults, included driving under the influence sobriety checkpoints, saturation patrols, and undercover operations to reduce service of alcohol to intoxicated patrons in bars, all including high visibility so the public would be aware of them. A measure of overall intervention intensity or dosage was created.

The outcome measure was a monthly percentage of all motor vehicle crashes that were single vehicle nighttime crashes for drivers aged 15–30 years. Analyses indicated a 17% reduction in the percentage of alcohol-involved crashes among drivers aged 15–30 years relative to controls, which translates to about 310 fewer crashes. Dosage was found to have a statistically significant effect on crashes among this age group, although not in the expected direction.

Source: Saltz, R. F., Paschall, M. J., & O'Hara, S. E. (2021). Effects of a community-level intervention on alcohol-related motor vehicle crashes in California cities: A randomized trial. *American Journal of Preventive Medicine*, 60(1), 38-46. <https://doi.org/10.1016/j.amepre.2020.08.009>

DRINK DRIVING REHABILITATION MEASURES: CALL FOR PAPERS

Dear Colleagues:

It is important to recognise that high levels of community education, enforcement and penalties have led to major improvements in road safety. However, a serious remaining problem is the representation of drink driving as a contributing factor in more than a quarter of fatal crashes. An important response has been increasing attention to developing and evaluating rehabilitation programs to reduce offender recidivism. At least three initiatives over the last decade deserve examination by the international public health community. These are programs linked with mandatory alcohol-ignition interlocks; interactive internet-based interventions particularly addressing attendance challenges; and increased attention to programs targeting first offenders to prevent recidivism.

A special edition of the *International Journal of Environmental Research & Public Health* calls for the submission of papers to enable a broad interchange from different countries and models to inform ongoing evaluation and progress in this important public health field.

Deadline for submission of papers: 31 July 2021

Questions and submission to: Guest Editor Prof Mary Sheehan, CARRS-Q, m.sheehan@qut.edu.au

Assistant Guest Editors: Dr Christine Wickens, Dalla Lana School of Public Health, University of Toronto, Canada. christine.wickens@camh.ca

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



UPCOMING EVENTS

Lifesavers Conference

26-28 April 2020

Virtual

lifesaversconference.org

Robert Borckenstein Alcohol

Course: Virtual

May 18-20 and 25-27, 2021

<https://bcahs.indiana.edu/>

COVID-19 effects on alcohol, drugs and road safety: Virtual Symposium

1 September 2021

www.icadtsinternational.com

IFDAT 2021- 10th Annual International Forum for Drug and Alcohol Testing

19-21 September 2021

Salzburg, Austria

www.ifdat.com

65th Annual Conference of the Association for the Advancement of Automotive Medicine, Indianapolis, IN

October 19-22, 2021

<https://www.aaam.org/annual-conference-2/>

T2022

28-31 August 2022

Rotterdam, The Netherlands

www.t2022.org



NOMINATION OF CANDIDATES FOR THE ICADTS EXECUTIVE BOARD

It is time once again to elect members of the ICADTS Executive Board. In September, the current President Elect (Jim Fell) will take over as President, the Assistant Secretary (Tara Kelley-Baker) and Assistant Treasurer (Hallvard Gjerde) will take over as Secretary and Treasurer. We will elect their replacements as well as two new Board Members at Large. As noted in the Letter from the ICADTS President, above, changes to the ICADTS bylaws now specify that at least one young scientist and one member from a low or middle income country must be included on the board. The nominations committee, headed by Past President Kathryn Stewart, is now assembling a slate of candidates. Please contact her by March 31 at stewart@pire.org to nominate members to run for these positions – or to volunteer yourself.

UPDATES ON TRAFFIC SAFETY DURING COVID-19 IN THE US

A report, issued by the U.S. National Highway Traffic Safety Administration, follows up on previous publications investigating the traffic safety environment during the early months of 2020. Risky traffic safety behaviors observed during Quarter 2 of 2020 continued into Quarter 3. The initial data demonstrates that traffic crash ejection rates have remained elevated compared to 2019. Data from selected trauma centers suggests that alcohol- and other drug-positive drivers and passengers seriously or fatally injured were less likely to be wearing a seat belt compared to counterparts who tested negative for all drugs. Speeds of drivers continued to remain elevated compared to the same time period one year prior.

Regarding alcohol and other drug prevalence among seriously and fatally injured drivers at the five trauma center study sites, more than 29% in the most recent period (July 19 to September 30) had measurable alcohol in their systems, with over 26% testing positive for the presence of cannabinoids and over 13% positive for opioids. In the same period, the percentage of drivers testing positive for at least one category of drugs remained above 60%, with nearly 25% testing positive for multiple categories of drugs. These observed increases in alcohol and other drug prevalence relative to before the public health emergency are consistent with the reported data that showed increases in marijuana and alcohol sales and consumption during the public health emergency.

Source: [Update to Special Reports on Traffic Safety During the COVID-19 Public Health Emergency: Third Quarter Data \(nhtsa.gov\)](https://www.nhtsa.gov/press-releases/update-to-special-reports-on-traffic-safety-during-the-covid-19-public-health-emergency-third-quarter-data)

PEDESTRIAN FATALITY TRENDS IN THE U.S.

Over the period from 2009 to 2018, pedestrian fatalities in the United States increased 53%, from 4,109 to 6,283, after decreasing for three decades. Between 2010 and 2017, the U.S. experienced the largest percentage increase in pedestrian fatalities among 30 countries in the Organization for Economic Cooperation & Development, 24 of which saw decreases in pedestrian fatalities. Although major risk factors for pedestrian crashes, injuries, and deaths are well documented (e.g., high speeds, large vehicles, poor lighting), not much is known about the factors underlying the large increase in pedestrian fatalities in recent years. A recent report from the AAA Foundation for Traffic Safety examined the increase in pedestrian fatalities from 2009 to 2018 through analysis of changes in the presence of certain pedestrian, driver, vehicle, and environmental factors.

With respect to alcohol, fatalities of pedestrians with no detectable alcohol in their blood increased by 58% over the study period and accounted for two-thirds of the overall increase in pedestrian fatalities. Fatalities of pedestrians with positive blood alcohol concentration (BAC) below .08 g/dL increased by 63% but accounted for only 5% of the overall increase in pedestrian fatalities. Fatalities of pedestrians with BACs of .08 or higher increased by 43% and accounted for 28% of the overall increase in pedestrian fatalities. The number of pedestrians killed in crashes with drivers who were legally intoxicated (BAC \geq .08 g/dL) increased by a larger amount than did the number killed in crashes with drivers with zero or lower BAC on a percentage basis. However, the majority of drivers who fatally struck pedestrians had no detectable alcohol (BAC=0 g/dL), and these drivers accounted for 79% of the total increase in pedestrian fatalities over the study period.

For the complete report: [20-1319-AAAFTS Pedestrian-Fatalities-Brief FINAL-122220.pdf \(aaafoundation.org\)](https://www.aaafoundation.org/20-1319-AAAFTS-Pedestrian-Fatalities-Brief-FINAL-122220.pdf)