projectextramile
PREVENTING ALCOHOL-RELATED HARM

RESEARCH SUMMARY
Date Compiled: August 2020

Key takeaways from included research:

- Excessive alcohol use contributes to an average of 93,296 alcohol-attributable deaths (255 deaths per day) and 2.7 million YPLL (29 years of life lost per death, on average) in the United States each year.
- Three more risk factors for dementia with newer, convincing evidence are excessive alcohol consumption, traumatic brain injury, and air pollution. Researchers completed new reviews and meta-analyses and incorporated these into an updated 12 risk factor life-course model of dementia prevention.
- There are many implications for research on alcohol consumption, harms, and policies related to rapid changes in the alcohol supply, demand, marketing, drinking contexts, associated risks, and other environmental factors during the COVID-19 pandemic.
- Factors that were associated with an increased likelihood of severe injuries for both single- and multi-occupant crashes included circumstances like rural area, road with downward grade, and dark and unlit roadway in a review of drunk driving crashes and the presence of passengers.
- Monitoring consumption levels both during and after the COVID-19 pandemic will be necessary to better understand the effects of COVID-19 on different groups, as well as to distinguish them from those arising from existing alcohol control policies.
- Applying new alcohol warning labels (AWLs) including a cancer warning (Ca), low-risk drinking guidelines (LRDGs) and standard drink (SD) messages was associated with reduced population alcohol consumption in Yukon, Canada.

DEATHS AND YEARS OF POTENTIAL LIFE LOST FROM EXCESSIVE ALCOHOL USE — UNITED STATES, 2011–201

July 2020

Summary

Excessive alcohol use is a leading cause of preventable death in the United States (*1*) and costs associated with it, such as those from losses in workplace productivity, health care expenditures, and criminal justice, were $249 billion in 2010. CDC used the Alcohol-Related Disease Impact (ARDI) application to estimate national and state average annual alcohol-attributable deaths and years of potential life lost (YPLL) during 2011–2015, including deaths from one's own excessive drinking (e.g., liver disease) and from others' drinking (e.g., passengers killed in alcohol-related motor vehicle crashes). This study found an average of 93,296 alcohol-attributable deaths (255 deaths per day) and 2.7 million YPLL (29 years of life lost per death, on average) in the United States each year. Of all alcohol-attributable deaths, 51,078 (54.7%) were caused by chronic conditions, and 52,361 (56.0%) involved adults aged 35–64 years. Age-adjusted alcohol-attributable deaths per 100,000 population ranged from 20.3 in New Jersey and New York to 52.3 in New Mexico. YPLL per 100,000 population ranged from 613.8 in New York to 1,651.7 in New Mexico. Implementation of effective strategies for preventing excessive drinking, including those recommended by the Community Preventive Services Task Force (e.g., increasing alcohol taxes and regulating the number and concentration of alcohol outlets), could reduce alcohol-attributable deaths and YPLL.

Source: Esser, M.B., Sherk, A., Liu, Y., Naimi, T.S., Stockwell, T., Stahre, M., Kanny, D., Landen, M., Saitz, R. & Brewer, R.D. (2020). Deaths and years of potential life lost from excessive alcohol use — United States, 2011–2015. *MMWR Morbidity and Mortality Weekly Report* 2020; 69, 981-987. https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6930a1-H.pdf

DEMENTIA PREVENTION, INTERVENTION, AND CARE: 2020 REPORT OF THE LANCET COMMISSION

July 2020

Summary

The number of older people, including those living with dementia, is rising, as younger age mortality declines. However, the age-specific incidence of dementia has fallen in many countries, probably because of improvements in education, nutrition, health care, and lifestyle changes. Overall, a growing body of evidence supports the nine potentially modifiable risk factors for dementia modelled by the 2017 *Lancet* Commission on dementia prevention, intervention, and care: less education, hypertension, hearing impairment, smoking, obesity, depression, physical inactivity, diabetes, and low social contact. We now add three more risk factors for dementia with newer, convincing evidence. These factors are excessive alcohol consumption, traumatic brain injury, and air pollution. We have completed new reviews and meta-analyses and incorporated these into an updated 12 risk factor life-course model of dementia prevention. Together the 12 modifiable risk factors account for around 40% of worldwide dementias, which consequently could theoretically be prevented or delayed. The potential for prevention is high and might be higher in low-income and middle-income countries (LMIC) where more dementias occur.

Source: Livingston, G., Huntley, J., Sommerlad, A., et al. (2020). Dementia prevention, intervention, and care: 2020 report of the Lancet Commission. *The Lancet*. Published online July 30, 2020 https://www.thelancet.com/action/showPdf?pii=S0140-6736%2820%2930367-6

ALCOHOL POLICY AND CORONAVIRUS: AN OPEN RESEARCH AGENDA
JUNE 2020

Summary
The pandemic of COVID-19 hit Dublin, Ireland, just before the opening of the Global Alcohol Policy Conference (GAPC) on March 9, 2020, causing more than 100 cancellations of registered participants. This is the most important gathering of researchers and advocates for alcohol policy in the world, and despite the excellent presentations and discussions, we all missed the participation of key partners and opportunities for wider networking.
As the situation changed rapidly across the world and several countries began to impose restrictions on travel and physical distancing, it became clear that there are many implications for research on alcohol consumption, harms, and policies—in high- and low-income countries—related to rapid changes in the supply, demand, marketing, drinking contexts, associated risks, and other environmental factors known to influence alcohol-related outcomes.

Source: Monteiro, M.G., Rehm, J., & Duennbier, M. (2020). Alcohol policy and coronavirus: An open research agenda. *Journal of Studies on Alcohol and Drugs*, 81 (3), 297–299.
https://www.jsad.com/doi/full/10.15288/jsad.2020.81.297

ROLE OF PASSENGERS IN SINGLE-VEHICLE DRUNK-DRIVING CRASHES: AN INJURY-SEVERITY ANALYSIS
June 2020

Abstract
Drunk-driving is a major crash risk factor, and crashes resulting from this risky behavior tend to be serious and have significant economic and societal impacts. The presence of passengers and their demographics and activities can influence risky driving behaviors such as drunk-driving. However, passengers could either be an “enabling” factor to take more risks or could be an “inhibiting” factor by ensuring safe driving by a drunk-driver. Objective: This study examines whether the presence of

Background: Drunk-driving is a major crash risk factor, and crashes resulting from this risky behavior tend to be serious and have significant economic and societal impacts. The presence of passengers and their demographics and activities can influence risky driving behaviors such as drunk-driving. However, passengers could either be an “enabling” factor to take more risks or could be an “inhibiting” factor by ensuring safe driving by a drunk-driver.

Objective: This study examines whether the presence of passengers affects the contributing factors of single-vehicle (SV) drunk-driving crashes, by presenting a severity analysis of single- and multi-occupant SV drunk-driving crashes, to identify risk factors that contribute to crash severity outcomes, for the effective implementation of relevant countermeasures.

Method: A total of 7407 observations for 2012–2016 from the crash database of the State of Alabama was used for this study. The variables were divided into six classes: temporal, locational, driver, vehicle, roadway, and crash characteristics and injury severities into three: severe, minor, and no injury. Two latent class multinomial logit models—one each for single- and multi-occupant crashes—were developed, to analyze the effects of significant factors on injury severity outcomes using marginal effects.

Results: The estimated results show that collision with a ditch, run-off road, intersection, winter season, wet roadway, and interstate decreased the probability of severe injuries in both single- and multi-occupant crashes, whereas rural area, road with downward grade, dark and unlit roadway, unemployed driver, and driver with invalid license increased the likelihood of severe injuries for both single- and multi-occupant crashes. Female drivers were more likely to be severely injured in single-

occupant crashes, but less likely in multi-occupant crashes. A significant association was found between severe injuries and weekends, residential areas, and crash location close (<25 mi ≈40.23 km) to the residence of the at-fault driver in multi-occupant crashes. Sport utility vehicles were found to be safer when driving with passengers.

Conclusions: The model findings show that, although many correlates are consistent between the single- and multi-occupant SV crashes that are associated with locational, roadway, vehicle, temporal, and driver characteristics, their effect can vary across the single- and multi-occupant driving population. The findings from this study can help in targeting interventions, developing countermeasures, and educating passengers to reduce drunk-driving crashes and consequent injuries. Such integrated efforts combined with engineering and emergency response may contribute in developing a true safe systems approach.

Source: Lidbe, A., Adanu, E.K., Tedla, E., & Jones, S. (2020). Role of passengers in single-vehicle drunk-driving crashes: An injury-severity analysis. *Safety* 2020, *6* (2), 30. https://www.mdpi.com/2313-576X/6/2/30

ALCOHOL USE IN TIMES OF THE COVID 19: IMPLICATIONS FOR MONITORING AND POLICY

May 2020

Abstract

Based on a literature search undertaken to determine the impacts of past public health crises, and a systematic review of the effects of past economic crises on alcohol consumption, two main scenarios—with opposite predictions regarding the impact of the current COVID-19 pandemic on the level and patterns of alcohol consumption—are introduced. The first scenario predicts an increase in consumption for some populations, particularly men, due to distress experienced as a result of the pandemic. A second scenario predicts the opposite outcome, a lowered level of consumption, based on the decreased physical and financial availability of alcohol. With the current restrictions on alcohol availability, it is postulated that, for the immediate future, the predominant scenario will likely be the second, while the distress experienced in the first may become more relevant in the medium- and longer-term future. Monitoring consumption levels both during and after the COVID-19 pandemic will be necessary to better understand the effects of COVID-19 on different groups, as well as to distinguish them from those arising from existing alcohol control policies.

Source: Rehm, J., Kilian, C., Ferreira-Borges, C., Jernigan, D., Monteiro, M., Parry, C., Sanchez, Z.M. & Manthey, J. (2020). Alcohol use in times of the COVID 19: Implications for monitoring and policy. *Drug and Alcohol Review*, 39, 301–304. https://onlinelibrary.wiley.com/doi/epdf/10.1111/dar.13074

THE EFFECTS OF ALCOHOL WARNING LABELS ON POPULATION ALCOHOL CONSUMPTION: AN INTERRUPTED TIME SERIES ANALYSIS OF ALCOHOL SALES IN YUKON, CANADA

May 2020

Abstract

Objective: There is limited evidence that alcohol warning labels (AWLs) affect population alcohol consumption. New evidence informed AWLs were introduced in the sole government-run liquor store in Whitehorse, Yukon, that included a cancer warning (Ca), low-risk drinking guidelines (LRDGs) and standard drink (SD) messages. These temporarily replaced previous pregnancy warning labels. We test if the intervention was associated with reduced alcohol consumption.

Method: An interrupted time series study was designed to evaluate the effects of the AWLs on consumption for 28 months before and 14 months after starting the intervention. Neighboring regions of Yukon and Northwest Territories served as control sites. About 300,000 labels were applied to 98% of alcohol containers sold in Whitehorse during the intervention. Multilevel regression analyses of per capita alcohol sales data for people age 15 years and older were performed to examine consumption levels in the intervention and control sites before, during, and after the AWLs were introduced. Models were adjusted for demographic and economic characteristics over time and region.

Results: Total per capita retail alcohol sales in Whitehorse decreased by 6.31% (t test $p < .001$) during the intervention. Per capita sales of labeled products decreased by 6.59% (t test $p < .001$), whereas sales of unlabeled products increased by 6.91% (t test $p < .05$). There was a still larger reduction occurring after the intervention when pregnancy warning labels were reintroduced (-9.97% and -10.29%, t test $p < .001$).

Conclusions: Applying new AWLs was associated with reduced population alcohol consumption. The results are consistent with an accumulating impact of the addition of varying and highly visible labels with impactful messages.

Source: Zhao, J., Stockwell, T., Vallance, K. & Hobin, E. (2020). The effects of alcohol warning labels on population alcohol consumption: An interrupted time series analysis of alcohol sales in Yukon, Canada. *Journal of Studies on Alcohol and Drugs*, 81 (2), 225-237. https://www.jsad.com/doi/full/10.15288/jsad.2020.81.225