



RESEARCH SUMMARY

Date Compiled: February 2020

Key takeaways from included research:

- The number of alcohol-related deaths per year among people aged 16+ doubled from 35,914 to 72,558, and the rate increased 50.9% from 16.9 to 25.5 per 100,000. Nearly 1 million alcohol-related deaths (944,880) were recorded between 1999 and 2017.
- The total annual number of binge drinks consumed per U.S. adult who reported binge drinking increased significantly by 12% from 2011 to 2017.
- Improving knowledge that alcohol can cause cancer using labels may increase support for alcohol policies, including raising the price of alcohol.
- Researchers analyzed 23 previously published studies and confirmed that drinking alcohol during pregnancy leads to children with poorer cognitive functions and increases the risk of lower birth weight.
- In the 12 months following the implementation of Minimum Unit Pricing (MUP) the volume of pure alcohol sold in the off-trade in Scotland fell by 3.6%, from 7.4 to 7.1 litres per adult, compared to the 12 months before MUP was implemented.

USING DEATH CERTIFICATES TO EXPLORE CHANGES IN ALCOHOL-RELATED MORTALITY IN THE UNITED STATES, 1999 TO 2017

January 2020

Abstract

Background: Alcohol consumption, alcohol-related emergency department visits, and hospitalizations have all increased in the last 2 decades, particularly among women and people middle-aged and older. The purpose of this study was to explore data from death certificates to assess whether parallel changes in alcohol-related mortality occurred in the United States in recent years.

Methods: U.S. mortality data from the National Center for Health Statistics were analyzed to estimate the annual number and rate of alcohol-related deaths by age, sex, race, and ethnicity between 1999 and 2017 among people aged 16+. Mortality data contained details from all death certificates filed nationally. For each death, an underlying cause and up to 20 multiple or contributing causes were indicated. Deaths were identified as alcohol-related if an alcohol-induced cause was listed as either an underlying or multiple cause. Joinpoint analyses were performed to assess temporal trends.

Results: The number of alcohol-related deaths per year among people aged 16+ doubled from 35,914 to 72,558, and the rate increased 50.9% from 16.9 to 25.5 per 100,000. Nearly 1 million alcohol-related deaths (944,880) were recorded between 1999 and 2017. In 2017, 2.6% of roughly 2.8 million deaths in the United States involved alcohol. Nearly half of alcohol-related deaths resulted from liver disease (30.7%; 22,245) or overdoses on alcohol alone or with other drugs (17.9%; 12,954). Rates of alcohol-related deaths were highest among males, people in age-groups spanning 45 to 74 years, and among non-Hispanic (NH) American Indians or Alaska Natives. Rates increased for all age-groups except 16 to 20 and 75+ and for all racial and ethnic groups except for initial decreases among Hispanic males and NH Blacks followed by increases. The largest annual increase occurred among NH White females. Rates of acute alcohol-related deaths increased more for people aged 55 to 64, but rates of chronic alcohol-related deaths, which accounted for the majority of alcohol-related deaths, increased more for younger adults aged 25 to 34.

Conclusions: Death certificates suggest that alcohol-related mortality increased in the United States between 1999 and 2017. Given previous reports that death certificates often fail to indicate the contribution of alcohol, the scope of alcohol-related mortality in the United States is likely higher than suggested from death certificates alone. Findings confirm an increasing burden of alcohol on public health and support the need for improving surveillance of alcohol-involved mortality.

Source: White, A., Castle, J.P., Hingson, R., & Powell, P. (2020). Using death certificates to explore changes in alcohol-related mortality in the United States, 1999–2017. *Alcoholism: Clinical and Experimental Research*. Published online January 8, 2020. <https://www.niaaa.nih.gov/news-events/news-releases/alcohol-related-deaths-increasing-united-states>

TRENDS IN TOTAL BINGE DRINKS PER ADULT WHO REPORTED BINGE DRINKING — UNITED STATES, 2011–2017

January 2020

Extract

The total annual number of binge drinks consumed per U.S. adult who reported binge drinking increased significantly by 12% from 2011 to 2017, including among non-Hispanic white adults and those aged ≥ 35 years. These increases are consistent with other recent evidence of an approximately

30% increase in high-risk drinking, including binge-level alcohol consumption, particularly among middle-aged and older adults. Because binge drinking contributes a substantial proportion of all alcohol consumption in the United States, these increases also are consistent with an increase in per capita alcohol consumption (derived from sales and shipment data) in the United States, from 2.29 gallons in 2011 to 2.34 gallons in 2017.

The finding that the total number of binge drinks consumed per U.S. adult who reported binge drinking increased significantly among those with lower education and income levels is also consistent with a recent study that found the majority of persons reporting prescription opioid misuse also are adults who reported binge drinking, and that prescription opioid misuse tends to be most common among persons with lower household incomes (5). Socioeconomic disparities in the total number of binge drinks per adult who reported binge drinking also might have contributed to the lower life expectancies reported among persons with lower socioeconomic status in the United States.

Source: Kanny, D., Naimi, T.S., Liu, Y., & Brewer, R.D. (2020). Trends in total binge drinks per adult who reported binge drinking - United States, 2011–2017. *Morbidity and Mortality Weekly Report*, 69(2); 30–34. <https://www.cdc.gov/mmwr/volumes/69/wr/mm6902a2.htm>

IMPROVING KNOWLEDGE THAT ALCOHOL CAN CAUSE CANCER IS ASSOCIATED WITH CONSUMER SUPPORT FOR ALCOHOL POLICIES: FINDINGS FROM A REAL-WORLD ALCOHOL LABELLING STUDY

December 2019

Abstract

Knowledge that alcohol can cause cancer is low in Canada. Alcohol labels are one strategy for communicating alcohol-related harms, including cancer. Extending existing research observing an association between knowledge of the alcohol–cancer link and support for alcohol policies, this study examined whether increases in individual-level knowledge that alcohol is a carcinogen following an alcohol labelling intervention are associated with support for alcohol policies. Cancer warning labels were applied to alcohol containers at the intervention site, and the comparison site did not apply cancer labels. Pre-post surveys were conducted among liquor store patrons at both sites before and two-and six-months after the intervention was stopped due to alcohol industry interference. Limiting the data to participants that completed surveys both before and two-months after the cancer label stopped, logistic regression was used to examine the association between increases in knowledge and support for policies. Support for pricing and availability policies was low overall; however, increases in individual-level knowledge of the alcohol-cancer link was associated with higher levels of support for pricing policies, specifically, setting a minimum unit price per standard drink of alcohol (OR = 1.86, 95% CI: 1.11–3.12). Improving knowledge that alcohol can cause cancer using labels may increase support for alcohol policies.

Source: Weerasinghe, A., Schoueri-Mychasiw, N., Vallance, K., Stockwell, T., Hammond, D., McGavock, J., Greenfield, T., Paradis, C., & Hobin, E. (2020). Improving knowledge that alcohol can cause cancer is associated with consumer support for alcohol policies: Findings from a real-world alcohol labelling study. *International Journal of Environmental Research and Public Health*, 17(2), 398. <https://www.mdpi.com/1660-4601/17/2/398/htm>

EVIDENCE OF DETRIMENTAL EFFECTS OF PRENATAL ALCOHOL EXPOSURE ON OFFSPRING BIRTHWEIGHT AND NEURODEVELOPMENT FROM A SYSTEMATIC REVIEW OF QUASI-EXPERIMENTAL STUDIES

January 2020

Abstract

Background: Systematic reviews of prenatal alcohol exposure effects generally only include conventional observational studies. However, estimates from such studies are prone to confounding and other biases.

Objectives: To systematically review the evidence on the effects of prenatal alcohol exposure from randomized controlled trials (RCTs) and observational designs using alternative analytical approaches to improve causal inference.

Search strategy: Medline, Embase, Web of Science, PsychINFO from inception to 21 June 2018. Manual searches of reference lists of retrieved papers.

Selection criteria: RCTs of interventions to stop/reduce drinking in pregnancy and observational studies using alternative analytical methods (quasi-experimental studies e.g. Mendelian randomization and natural experiments, negative control comparisons) to determine the causal effects of prenatal alcohol exposure on pregnancy and longer-term offspring outcomes in human studies.

Data collection and analysis: One reviewer extracted data and another checked extracted data. Risk of bias was assessed using customized risk of bias tools. A narrative synthesis of findings was carried out and a meta-analysis for one outcome.

Main results: Twenty-three studies were included, representing five types of study design, including 1 RCT, 9 Mendelian randomization and 7 natural experiment studies, and reporting on over 30 outcomes. One study design–outcome combination included enough independent results to meta-analyse. Based on evidence from several studies, we found a likely causal detrimental role of prenatal alcohol exposure on cognitive outcomes, and weaker evidence for a role in low birthweight.

Conclusion: None of the included studies was judged to be at low risk of bias in all domains, results should therefore be interpreted with caution.

Source: Mamluk, L., Jones, T., Ijaz, S., Edwards, H.B., Savović, J., Leach, V., Moore, T. H M, von Hinke, S., Lewis, S.J., Donovan, J.L., Lawlor, D.A., Smith, G.D., Fraser, A., & Zuccolo, L. (2020). Evidence of detrimental effects of prenatal alcohol exposure on offspring birthweight and neurodevelopment from a systematic review of quasi-experimental studies. *International Journal of Epidemiology*, dyz272, <https://doi.org/10.1093/ije/dyz272>

Additional Media Coverage:

Study Finds that No Amount of Alcohol Is Safe During Pregnancy

<https://www.healthline.com/health-news/theres-no-safe-amount-of-drinking-during-pregnancy>

EVALUATING THE IMPACT OF MINIMUM UNIT PRICING (MUP) ON SALES-BASED CONSUMPTION IN SCOTLAND: A DESCRIPTIVE ANALYSIS OF ONE YEAR POST-MUP OFF-TRADE ALCOHOL SALES DATA
November 2019

Description: This study looks at the impact of Minimum Unit Pricing (MUP) for alcohol that came into effect in Scotland in 2018. This report provides a descriptive analysis of the impact of MUP on the volume of pure alcohol sold in the off-trade in Scotland in the 12 months following implementation of MUP based on descriptive analysis of retail sales data.

What was found: In the 12 months following the implementation of MUP the volume of pure alcohol sold in the off-trade in Scotland fell by 3.6%, from 7.4 to 7.1 litres per adult, compared to the 12 months before MUP was implemented. In England & Wales, over the same period, the volume of alcohol sold in the off-trade rose by 3.2%, from 6.3 to 6.5 litres per adult (Figure 1). The combined fall in Scotland and rise in England & Wales resulted in the smallest difference in per-adult alcohol sales (0.6 litres per adult; 9.6%) between the two areas in this time series.

Source: Giles L, Robinson M and Beeston C. Minimum Unit Pricing (MUP) Evaluation. Sales-based consumption: a descriptive analysis of one year post-MUP off-trade alcohol sales data. Edinburgh: NHS Health Scotland; 2019. <http://www.healthscotland.scot/publications/evaluating-the-impact-of-minimum-unit-pricing-mup-on-sales-based-consumption-in-scotland-a-descriptive-analysis-of-one-year-post-mup-off-trade-alcohol-sales-data>

- <http://www.healthscotland.scot/media/2953/c-users-kims-desktop-mup-sales-based-consumption-plain-english-briefing.pdf>

Additional Media Coverage:

Alcohol off-sales fall in first year of minimum pricing
<https://www.bbc.com/news/uk-scotland-51269004>