



## RESEARCH SUMMARY

Date Compiled: February 2021

### Key takeaways from included research:

- Two online surveys were administered to U.S. adult social media users in March and April 2020. Survey respondents aged 18–39 years had the highest probability of reporting increased alcohol use. The probability of older persons (40–59 and  $\geq 60$  years) reporting increased drinking was much greater among those with symptoms of anxiety and depression, compared to those without symptoms.
- Nationally, alcohol consumption accounted for 75,199 cancer cases and 18,947 cancer deaths annually.
- Researchers examined the associations between drinking patterns (e.g., binge drinking) and other substance use in the U.S. Binge drinkers were twice as likely to report concurrent prescription drug misuse while drinking as non-binge drinkers. The prevalence of substance use increased with binge-drinking frequency.
- Following the introduction of alcohol policy reforms in Central Australia, there was a 38% relative reduction in ICU admissions associated with alcohol misuse as well as a reduction in trauma admissions.

## **INCREASED ALCOHOL USE DURING THE COVID-19 PANDEMIC: THE EFFECT OF MENTAL HEALTH AND AGE IN A CROSS-SECTIONAL SAMPLE OF SOCIAL MEDIA USERS IN THE U.S.**

April 2021

### **Abstract**

The COVID-19 pandemic has triggered a public health crisis of unprecedented scale. Increased alcohol use has been extensively documented during other crises, particularly among persons with anxiety and depression. Despite COVID-19's differential impact by age, the association of age, mental health and alcohol use during the pandemic has not been explored. This study aimed to examine whether age modified the association of anxiety and depressive symptoms with alcohol use during the COVID-19 pandemic. Two online surveys were administered to U.S. adult social media users in March and April 2020. Generalized linear models were conducted in 2020 among 5850 respondents (52.9% female; 22.0% aged 18–39 years, 47.0% aged 40–59 years, and 31.0% aged ≥60 years) to examine if age modified the association of anxiety and depression symptomatology and alcohol use. Overall, 29% of respondents reported increased alcohol use. Adjusted odds ratios of reporting increased alcohol use were 1.41 (95% CI = 1.20–1.66) among respondents with anxiety symptoms and 1.64 (95% CI = 1.21–2.23) among those with depressive symptoms compared to those without such symptoms. Whereas respondents aged 18–39 years had the highest probability of reporting increased alcohol use, the probability of older persons (40–59 and ≥60 years) reporting increased drinking was much greater among those with symptoms of anxiety and depression, compared to those without symptoms. These findings warrant age-differentiated public health messaging on the risks of excessive alcohol use and scale-up of substance use services for middle-aged and older adults with symptoms of depression and anxiety.

**Source:** Capasso, A., Jones, A.M., Ali, S.H. et al. 2021. Increased alcohol use during the COVID-19 pandemic: The effect of mental health and age in a cross-sectional sample of social media users in the U.S. *Preventive Medicine*, 145.

<https://www.sciencedirect.com/science/article/pii/S0091743521000062>

## **Proportion of Cancer Cases and Deaths Attributable to Alcohol Consumption by US State,**

**2013-2016**

April 2021

### **Abstract**

**Background:** Alcohol consumption is an established risk factor for several cancer types, but there are no contemporary published estimates of the state-level burden of cancer attributed to alcoholic beverage consumption. Such estimates are needed to inform public policy and cancer control efforts. We estimated the proportion and number of incident cancer cases and cancer deaths attributable to alcohol consumption by sex in adults aged ≥30 years in all 50 states and the District of Columbia in 2013–2016.

**Methods:** Age-, sex-, and state-specific cancer incidence and mortality data (2013–2016) were obtained from the US Cancer Statistics database. State-level, self-reported age and sex stratified alcohol consumption prevalence was estimated using the 2003–2006 Behavioral Risk Factor Surveillance System surveys and adjusted with state sales data.

**Results:** The proportion of alcohol-attributable incident cancer cases ranged from 2.9 % (95 % confidence interval: 2.7 %–3.1 %) in Utah to 6.7 % (6.4 %–7.0 %) in Delaware among men and women combined, from 2.7 % (2.5 %–3.0 %) in Utah to 6.3 % (5.9 %–6.7 %) in Hawaii among men, and from 2.7 % (2.4 %–3.0 %) in Utah to 7.7 % (7.2 %–8.3 %) in Delaware among women. The

proportion of alcohol-attributable cancer deaths also varied considerably across states: from 1.9 % to 4.5 % among men and women combined, from 2.1% to 5.0% among men, and from 1.4 % to 4.4 % among women. Nationally, alcohol consumption accounted for 75,199 cancer cases and 18,947 cancer deaths annually.

**Conclusion:** Alcohol consumption accounts for a considerable proportion of cancer incidence and mortality in all states. Implementing state-level policies and cancer control efforts to reduce alcohol consumption could reduce this cancer burden.

**Source:** Goding Sauer, A., Fedewa, S.A., Bandi, P., et al. 2021. Proportion of cancer cases and deaths attributable to alcohol consumption by US state, 2013-2016. *Cancer Epidemiology*, 2021; 71. <https://www.sciencedirect.com/science/article/abs/pii/S1877782121000102?via%3Dihub>

## **BINGE DRINKING, OTHER SUBSTANCE USE, AND CONCURRENT USE IN THE U.S., 2016-2018** **February 2021**

### **Abstract**

**Introduction:** The use of multiple substances heightens the risk of overdose. Multiple substances, including alcohol, are commonly found among people who experience overdose-related mortality. However, the associations between alcohol use and the use of a range of other substances are often not assessed. Therefore, this study examines the associations between drinking patterns (e.g., binge drinking) and other substance use in the U.S., the concurrent use of alcohol and prescription drug misuse, and how other substance use varies by binge-drinking frequency.

**Methods:** Past 30-day alcohol and other substance use data from the 2016-2018 National Survey on Drug Use and Health were analyzed in 2020 among 169,486 U.S. respondents aged  $\geq 12$  years.

**Results:** The prevalence of other substance use ranged from 6.0% (nondrinkers) to 24.1% (binge drinkers). Among people who used substances, 22.2% of binge drinkers reported using substances in 2 additional substance categories. Binge drinking was associated with 4.2 (95% CI=3.9, 4.4) greater adjusted odds of other substance use than nondrinking. Binge drinkers were twice as likely to report concurrent prescription drug misuse while drinking as non-binge drinkers. The prevalence of substance use increased with binge-drinking frequency.

**Conclusions:** Binge drinking was associated with other substance use and concurrent prescription drug misuse while drinking. These findings can guide the implementation of a comprehensive approach to prevent binge drinking, substance misuse, and overdoses. This might include population-level strategies recommended by the Community Preventive Services Task Force to prevent binge drinking (e.g., increasing alcohol taxes and regulating alcohol outlet density).

**Source:** Esser M.B., Pickens C.M., Guy G.P. Jr, & Evans M.E. 2021. Binge drinking, other substance use, and concurrent use in the U.S., 2016-2018. *American Journal of Preventive Medicine*, 60(2):169-178. <https://pubmed.ncbi.nlm.nih.gov/33482979/>

**THE EFFECT OF ALCOHOL POLICY ON INTENSIVE CARE UNIT ADMISSION PATTERNS IN CENTRAL AUSTRALIA: A BEFORE–AFTER CROSS-SECTIONAL STUDY**  
January 2021

**Abstract**

Alcohol misuse is a disproportionately large contributor to morbidity and mortality in the Northern Territory. A number of alcohol harm minimisation policies have been implemented in recent years. The effect of these on intensive care unit (ICU) admissions has not been fully explored. A retrospective before–after cross-sectional study was conducted at the Alice Springs Hospital ICU between 1 October 2017 and 30 September 2019. The primary outcome was the proportion of admissions in which alcohol misuse was a contributing factor in the 12 months before (pre-reforms phase) versus the 12 months following (post-reforms phase) implementation of alcohol legislation reforms. Secondary outcomes were measures of critical care resource use (length of stay, need for and duration of mechanical ventilation). After exclusions, 1323 ICU admissions were analysed. There was a reduction in the proportion of admissions associated with alcohol misuse between the pre-reforms and post-reforms phases (18.8% versus 11.7%,  $P < 0.01$ ). This was true for both acute (10.6% versus 3.6%,  $P < 0.01$ ) and chronic misuse (13.3% versus 9.6%,  $P = 0.03$ ). Rates of mechanical ventilation were unchanged during the post-reforms phase (18.3% versus 14.7%). Admissions with a primary diagnosis of trauma were lower (10.5% versus 4.7%,  $P < 0.01$ ). This study demonstrated a reduction in ICU admissions associated with alcohol misuse following the implementation of new alcohol harm minimisation policies. This apparent reduction in alcohol-related harm is suggestive of the effectiveness of the Northern Territory’s integrated alcohol harm reduction framework.

**Source:** Wright, C., McAnulty, G., & Secombe, P. 2021. The effect of alcohol policy on intensive care unit admission patterns in Central Australia: A before–after cross-sectional study. *Anaesthesia and Intensive Care*, 2021.  
<https://journals.sagepub.com/doi/10.1177/0310057X20977503>