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PREVENTING ALCOHOL-RELATED HARM

RESEARCH SUMMARY
Date Compiled: January 2026

Key takeaways from included research:

- A meta-analysis examined whether exposure to digital alcohol marketing is associated with alcohol use among adolescents and young adults. A review of 31 studies (62,703 participants) found that those exposed to digital alcohol marketing had significantly higher odds of past 30-day alcohol use, binge drinking, and susceptibility to drinking among never users compared with unexposed peers. Most participants were adolescents, and results were consistent across outcomes despite high study heterogeneity. Overall, the findings suggest a clear association between digital alcohol marketing exposure and pro-alcohol behaviors, though more research is needed to determine causality.
- Another study modeled the effects of raising Scotland's minimum unit price (MUP) for alcohol from £0.50 to £0.65 and found it would substantially reduce alcohol consumption, deaths, and alcohol-related harm over 20 years. The largest benefits are projected among the most disadvantaged populations and heavy drinkers, including large reductions in harmful and hazardous drinking. Overall, increasing MUP levels appears to strengthen public health gains and reduce health inequalities.
- Alcohol-related hospitalizations among U.S. adults stayed mostly stable from 2016 to 2022, but hospitalizations for alcohol-related medical complications increased. During this period, in-hospital mortality, length of stay, self-directed discharges, and costs all rose, with total hospitalization costs reaching $32.6 billion in 2022. These findings suggest that although hospitalization rates have not grown overall, alcohol-related harms are becoming more severe and costly, highlighting the need for stronger prevention and early treatment of alcohol use disorder.
- A new study found that alcohol use reported on routine AUDIT-C screenings in primary care predicted all-cause mortality over up to eight years of follow-up. Compared with low-risk drinkers, people reporting no alcohol use or very high-risk drinking had higher mortality, while those with moderate-risk drinking had lower mortality, with stronger effects seen in younger adults. Overall, the results show a J- or U-shaped relationship between alcohol use and death, supporting routine alcohol screening as a useful tool for identifying patients at higher risk.
- Alcohol use disorder (AUD) is a common, chronic disease that causes major health, social, and economic harm in the United States, contributing to over 90,000 deaths and hundreds of billions of dollars in costs annually. Alcohol misuse damages nearly every organ system, increasing the risk of brain disorders, liver disease, heart problems, cancer, metabolic disease, and immune dysfunction, with growing impacts among women and older adults. Despite available treatments, AUD remains underdiagnosed and undertreated, underscoring the need for stronger prevention efforts and continued investment in alcohol research.

ASSOCIATION BETWEEN EXPOSURE TO DIGITAL ALCOHOL MARKETING AND ALCOHOL USE: A SYSTEMATIC REVIEW AND META-ANALYSIS

November 2025

Background: Exposure to digital alcohol marketing content might be associated with pro-alcohol-related attitudes and behaviours, including the likelihood of initiating or sustaining the use of alcohol, especially among adolescents (aged <18 years) and young adults (aged 18–25 years). This study aimed to examine the relationship between exposure to digital alcohol marketing content and alcohol use outcomes.

Methods: Alcohol-related, digital media-related, and marketing-related search terms were entered into six online databases: PubMed, Web of Science, Scopus, PsycINFO, Embase, and Communication & Mass Media. Peer-reviewed articles written in English, published between Jan 1, 2004, and Feb 1, 2025, were included in the search. Studies that were included measured self-reported exposure to digital alcohol marketing content; used an unexposed control group; measured past 30-day alcohol use, binge drinking, or susceptibility to use alcohol among never users; and provided raw data to compute odds ratios (ORs) or reported ORs in the manuscript. When available, adjusted odds ratios were included; otherwise, unadjusted estimates were computed from raw data. A multilevel random-effects meta-analysis was used to estimate ORs and 95% CI, and heterogeneity (I2) was calculated for each alcohol use outcome. Study quality and publication bias were assessed. The study protocol was registered on the Open Science Framework.

Findings: The search identified 9913 articles. 96 articles were eligible for full-text review, of which 65 articles were removed based on the exclusion criteria. 31 studies were included in the final meta-analysis. The total sample size was 62 703 participants (32 314 [51·5%] female; 30 389 [48·5%] male, including 52 475 (83·7%) adolescents (aged 11–17 years) and 10 228 (16·3%) adults (aged ≥18 years). Participants exposed to digital alcohol marketing content, compared with those not exposed, had greater odds of reporting past 30-day alcohol use (19 studies, 46 361 participants; OR 1·75 [95% CI 1·39–2·20]; I2=91·0%), binge drinking (13 studies, 25 603 participants; 1·80 [1·22–2·67]; I2=95%), and susceptibility to use alcohol among never users (seven studies, 18 698 participants; 1·78 [1·29–2·46]; I2=88%).

Interpretation: Findings demonstrated an association between exposure to digital alcohol marketing content and alcohol-related behaviours. Future research is needed to clarify the temporal order between exposure to digital alcohol marketing content and alcohol-related behaviours.

Source: Donaldson, S. I., Russell, A. M., La Capria, K., DeJesus, A., Wang, E., Fayad, J., & Allem, J. P. (2025). Association between exposure to digital alcohol marketing and alcohol use: a systematic review and meta-analysis. *The Lancet Public Health*, *10*(11), e912-e922. https://dx.doi.org/10.1016/s2468-2667(25)00219-1

PUBLIC HEALTH IMPACTS OF INCREASING THE MINIMUM UNIT PRICE FOR ALCOHOL IN SCOTLAND: A MODEL-BASED APPRAISAL

January 2026

Background: Governments in several countries have introduced a minimum unit price (MUP) for alcohol. Evaluation studies suggest this has reduced alcohol-related harm, but MUPs must increase with inflation to remain effective. This paper estimates the impact of the impact of the Scottish Government's decision to increase its MUP from £0.50 to £0.65 in September 2024 and, alternative options where the MUP changes to between £0.40 and £0.80. It examines impacts on alcohol consumption, spending, and related health outcomes, how impacts vary across the population with regard to deprivation, and how drinkers move between lighter and heavier alcohol consumption groups.

Methods and findings: Policy appraisal using the Sheffield Tobacco and Alcohol Policy Model, a dynamic microsimulation model that combines data on alcohol purchasing and consumption for 10 beverage types and 800 subgroups comprising adults in the Scottish population with price elasticities and an epidemiological model. Deprivation is measured using quintiles of the Scottish Index of Multiple Deprivation. Drinker group is categorised as moderate (<14 units/week, 1 UK unit = 8 g ethanol), hazardous (>14 to ≤35/ ≤50 units/week for women/men), and harmful (>35/50 units/week for women/men). The policy appraisal estimates that, compared to retaining Scotland's MUP at £0.50, increasing the MUP to £0.65 leads to an estimated 12.0% decrease in alcohol consumption, 2.1% decrease in alcohol spending, 3,385 fewer deaths overall, and 2,578 fewer deaths wholly attributable to alcohol over 20 years. Estimated effects are largest in the quintile of the population living in the most deprived areas. Increasing the MUP to £0.65 is also estimated to reduce the proportion of drinkers consuming at harmful levels by 29.4% and the proportion consuming at hazardous levels by 8.0%. Key limitations of the study include relying on data on alcohol consumption and spending collected before the COVID-19 pandemic, synthesising consumption and spending data from separate datasets, and assuming no supply-side responses (e.g., price changes above the MUP threshold).

Conclusions: Increasing the threshold of an established MUP can lead to additional reductions in alcohol consumption, related harm, and health inequalities. Benefits accrue particularly to the most deprived and heaviest drinkers.

Source: Holmes J, Morris D, Gillespie D, Brennan A, Leeming G, Chen RKL, Wilson L, Angus C. Public health impacts of increasing the minimum unit price for alcohol in Scotland: A model-based appraisal. *PLoS Med*. 2026 Jan 8;23(1):e1004792. https://doi.org/10.1371/journal.pmed.1004792

ALCOHOL-RELATED HOSPITALIZATIONS FROM 2016 TO 2022
December 2025

Importance: Unhealthy alcohol use contributes to a high rate of mortality. While alcohol use increased during the COVID-19 pandemic, recent trends in alcohol-related hospitalizations are unknown.

Objective: To examine US trends in the rate and outcomes of alcohol-related hospitalizations from 2016 to 2022.

Design, Setting, and Participants: This serial cross-sectional study examined hospitalizations among adults aged 18 years or older who were sampled in the National Inpatient Sample, weighted to reflect nationally representative estimates. Data were examined from April to October 2025.

Main Outcomes and Measures: The primary outcome was alcohol-related hospitalizations, defined using discharge diagnosis codes. Hospitalizations were categorized as primary alcohol use disorder (AUD), primary alcohol-related medical complication, and secondary alcohol-related diagnosis based on discharge diagnosis codes. Secondary outcomes included in-hospital mortality, length of stay, cost of hospitalizations, and discharge disposition.

Results: This study included a weighted 12 912 240 alcohol-related hospitalizations (age 50 to 64 years, 40.4% [95% CI, 40.3%-40.5%]; male, 71.5% [95% CI, 71.4%-71.6%]; Black, 15.6% [95% CI, 15.3%-15.9%]; Hispanic, 11.2% [95% CI, 10.9%-11.4%]; White, 64.9% [95% CI, 64.5%-65.3%]). From 2016 to 2022, the annual rate of alcohol-related hospitalizations per 100 000 remained stable from 721 in 2016 to 688 in 2022 (annual percentage change [APC], −0.43; 95% CI, −1.28 to 0.49) but increased from 70 to 83 among hospitalizations for alcohol-related medical complications (APC, 3.56; 95% CI, 2.19 to 4.94). Trends across demographic groups differed by reasons for hospitalization. In-hospital mortality increased from 2.4% (95% CI, 2.3% to 2.5%) in 2016 to 3.1% (95% CI, 3.0% to 3.2%) in 2022 ($P < .001$). Mean length of stay increased from 5.6 (95% CI, 5.6 to 5.7) to 6.2 (95% CI,

6.1 to 6.3) days (P < .001), and the rate of self-directed discharges increased from 5.0% (95% CI, 4.8% to 5.2%) to 6.3% (95% CI, 6.1% to 6.5%) (P < .001). Hospitalization costs increased even after accounting for inflation and amounted to $32.6 billion in 2022.

Conclusion and Relevance: In this serial cross-sectional study of nationally representative administrative data from 2016 and 2022, the rate of alcohol-related hospitalizations was stable while mortality, length of stay, and health care costs all increased. Preventive efforts are needed to improve outcomes and reduce health care spending by reducing population-level alcohol consumption and engaging patients in AUD treatment before progression to alcohol-related hospitalizations.

Source: Bernstein, E. Y., Wilson, L. M., Kruse, G. R., Edelman, E. J., Herzig, S. J., & Anderson, T. S. (2025). Alcohol-Related Hospitalizations From 2016 to 2022. *JAMA Network Open*, *8*(12), e2550589-e2550589. https://doi.org/10.1001/jamanetworkopen.2025.50589

ALCOHOL CONSUMPTION REPORTED ON ROUTINE HEALTHCARE SCREENINGS IS ASSOCIATED WITH ALL-CAUSE MORTALITY IN PRIMARY CARE PATIENTS: A RETROSPECTIVE COHORT STUDY

December 2025

Background: Associations between alcohol and mortality are well documented in epidemiological studies, but whether brief alcohol screening measures administered routinely in primary care similarly predict mortality is less established. This study examined whether alcohol consumption reported on the three-item Alcohol Use Disorder Identification Test, Consumption (AUDIT-C) during routine care was associated with all-cause mortality, and secondarily, whether age and sex modified associations.

Methods: This retrospective cohort study used electronic health record data from a large integrated health system and death data from the Washington Department of Health. Adult (≥18 years) primary care patients were included if they completed an AUDIT-C screen (March 1, 2015–December 31, 2021). AUDIT-C scores were categorized: no alcohol use (0), low-risk alcohol use (1–2 female/1–3 male), moderate-risk alcohol use (3–6 female/4–6 male), high-risk alcohol use (7–8), or very high-risk alcohol use (9–12). Time-to-event (death or censoring) was measured for up to 8 years (2015–2023). Cox proportional hazards models, adjusted for demographic and clinical covariates, estimated adjusted all-cause mortality across AUDIT-C score categories, with low-risk alcohol use as the reference.

Results: Among 531,851 primary care patients, a majority were aged 30–59 (52%), female (58%), non-Hispanic (94%), and White (70%). A total of 21,548 patients died (4.8%) during follow-up (median 1752 days). Compared to patients reporting low-risk alcohol use, those reporting no use or very high-risk use had higher mortality (hazard ratio [HR] = 1.40 [95% CI: 1.36–1.44] and HR = 1.58 [1.35–1.84], respectively); those with moderate-risk use had lower mortality (HR = 0.86 [0.83–0.90]). Associations varied by age (stronger among young adults) but not sex.

Conclusions: Alcohol use reported on brief screens during routine primary care had an approximately convex association (J- or U-shaped depending on sub-population) with all-cause mortality as observed in prior epidemiological studies. Findings support the value of routine alcohol screening as a tool for identifying patients at risk for major adverse health outcomes like death.

Source: Matson, T. E., Bobb, J. F., Oliver, M., Berger, D. B., Jack, H. E., Steel, T. L., ... & Hallgren, K. A. (2025). Alcohol consumption reported on routine healthcare screenings is associated with all-cause mortality in primary care patients: A retrospective cohort study. *Alcohol: Clinical and Experimental Research*. https://doi.org/10.1111/acer.70192

ALCOHOL USE DISORDER IS A CHRONIC DISEASE

January 2026

Abstract

Alcohol use disorder (AUD) is a chronic, relapsing brain disease with profound health, societal, and economic consequences. Alcohol misuse not only leads to AUD, but it is also a driver of multimorbidity, exacerbating a wide range of chronic comorbidities, including cancer. Despite being formally recognized over six decades ago as a medical condition, AUD remains one of the most prevalent and costly public health issues in the United States. Alcohol misuse contributes to more than 90,000 deaths annually in the United States, with hundreds of billions of dollars lost annually due to healthcare costs, lost productivity, and criminal justice expenditures. Beyond its economic burden, alcohol adversely affects nearly every organ system. Chronic heavy alcohol use changes brain structure and impairs brain function, drives neuroinflammation and neurodegeneration, and contributes to neurological and psychiatric comorbidities as well as cognitive decline. Alcohol-associated liver disease is a leading cause of cirrhosis and hepatocellular carcinoma. In addition, chronic alcohol misuse leads to cardiomyopathy, hypertension, and arrhythmia, and increased risk for pulmonary disease. Through alterations in endocrine signaling, alcohol leads to reproductive dysfunction, osteoporosis, and metabolic derangements including diabetes and obesity. Alcohol compromises musculoskeletal integrity, impairs immune responses, alters gut microbiota and increases cancer risk. Particularly concerning is the rising prevalence of alcohol misuse in women and older adults, populations with increased physiological vulnerability. There are three FDA-approved treatments for AUD, but they are underutilized, and patient response rates are variable, highlighting the need for continued investment in translational alcohol research. This paper summarizes the widespread and systemic impact of alcohol misuse on the health of US citizens and US society. Given the substantial burden of disease, disability, and death associated with alcohol, and the clear benefits yielded by alcohol research to date, sustained and enhanced support for alcohol-related biomedical research remains a public health imperative.

Source: Gilpin, N. W., & Molina, P. E. (2026). *Alcohol use disorder is a chronic disease*. *Alcoholism: Clinical & Experimental Research, 50*(1), e70230. https://doi.org/10.1111/acer.70230