



**RESEARCH SUMMARY**  
Date Compiled: January 2025

**Key takeaways from included research:**

- A new study investigated the trends in alcohol-associated liver disease (ALD), liver cancer from alcohol, and alcohol use disorder (AUD) burdens among older Americans. Researchers reported that in 2021 there were approximately 512,340 cases of AUD, 56,990 cases of ALD, and 4,490 cases of primary liver cancer from alcohol. These rates are higher than age-standardized rates (ASRs) from the Global Burden of Disease study. Specifically, 40 states exhibited a rise in prevalence of ALD rates in older adults.
- A new systematic review examined the link between alcohol consumption and female breast cancer. Researchers found a positive association between alcohol consumption and breast cancer risk, even with small amounts of alcohol increasing the relative risk. They also concluded that alcohol consumption is associated with pre- and post-menopausal breast cancer, further emphasizing the need for guidelines to reduce alcohol-related cancer risks.
- A Finnish study examined changes in alcohol-attributable mortality inequalities during periods of sharply rising alcohol affordability. Researchers found that during periods of rising alcohol affordability, alcohol-attributable mortality increased more rapidly among low-income men compared to high-income men. However, during periods of falling alcohol affordability, mortality decreased more significantly among low-income men, which suggests that alcohol affordability could help reduce socioeconomic inequalities in alcohol-related harm.
- A study aimed to estimate the impact of changes in per capita alcohol consumption on overall cancer mortality rates and specific types of alcohol-related cancers as well as assess whether the associations between cancer and population alcohol consumption is influenced by a country's drinking patterns. The researchers found that a 1-liter per capita increase in alcohol consumption was associated with a 0.9% rise in total cancer mortality among females and a 1.1% increase in males. Overall, they found elevated effects in countries with more harmful drinking patterns.

## **INCREASED MORTALITY FROM ALCOHOL USE DISORDER, ALCOHOL-ASSOCIATED LIVER DISEASE, AND LIVER CANCER FROM ALCOHOL AMONG OLDER ADULTS IN THE UNITED STATES: 2000 TO 2021**

**December 2024**

**Background:** To investigate the trends in alcohol-associated liver disease (ALD), liver cancer from alcohol, and alcohol use disorder (AUD) burden among older adults in the United States (US).

**Methods:** We gathered the ALD, liver cancer from alcohol, and AUD prevalence, mortality, and age-standardized rates (ASRs) from the Global Burden of Disease (GBD) Study 2021 between 2010 and 2021. We estimated the annual percent change (APC) with confidence intervals (CIs) for the burden of ALD, liver cancer from alcohol, and AUD in older adults (>70 years) in the United States. The findings were contrasted with global estimates and categorized by sex and state.

**Results:** In 2021, there were approximately 512,340 cases of AUD, 56,990 cases of ALD, and 4490 cases of primary liver cancer from alcohol among older adults in the United States. In contrast to declining ASRs of prevalence and mortality in the global burden, these parameters were increased in older adults in the United States. From 2000 to 2021, prevalence from AUD (APC: 0.54%, 95% CI 0.43% to 0.65%), ALD (APC + 0.54%, 95% CI 0.22% to 0.86%), and primary liver cancer from alcohol (APC 2.93%, 95% CI 2.76% to 3.11%) increased. Forty states in the United States exhibited a rise in the prevalence rates of ALD in older adults.

**Conclusion:** Our findings highlighted the increased prevalence and mortality of AUD, ALD, and primary liver cancer from alcohol among older adults in the United States, contrasting with the decline in global trends. Public health strategies on ALD, AUD, and primary liver cancer from alcohol, which targets older adults, are urgently needed.

**Source:** Danpanichkul, P., Duangsonk, K., Tham, E. K. J., Tothananarungroj, P., Auttapracha, T., Prasitsumrit, V., ... & Liangpunsakul, S. Increased mortality from alcohol use disorder, alcohol-associated liver disease, and liver cancer from alcohol among older adults in the United States: 2000 to 2021. *Alcohol, clinical & experimental research*. <https://doi.org/10.1111/acer.15516>

## **ALCOHOLIC BEVERAGE CONSUMPTION AND FEMALE BREAST CANCER RISK: A SYSTEMATIC REVIEW AND META-ANALYSIS OF PROSPECTIVE COHORT STUDIES**

**November 2024**

### **Abstract**

Alcohol consumption is an established cause of female breast cancer. This systematic review examines in detail the association between alcohol and female breast cancer overall and among the described subgroups, using all of the evidence to date. A systematic review of PubMed and Embase was performed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. The search included articles published up to November 15, 2023. Meta-analyses and regressions were performed for alcohol consumption of less than 1 standard drink (10 g of ethanol) per day and for a range of alcohol consumption categories in relation to breast cancer. Analyses by menopausal status, hormone receptor status, human epidermal growth factor receptor 2 status, and molecular subtype were performed. The search yielded 5645 publications, of which 23 publications of individual and pooled studies examined the association between overall alcohol consumption and breast cancer incidence. The meta-regression showed a positive association; relative risks (RR) of breast cancer were 1.05 (95% CI: 1.04, 1.06), 1.10 (95% CI: 1.08, 1.12), 1.18 (95% CI: 1.15, 1.21), and 1.22 (95% CI: 1.19, 1.25) for 0.5, 1, 2, and 3 standard drinks per day compared with nondrinking, respectively. A meta-analysis of nine studies indicated that for consumption of less than one standard drink per day, the RR estimate of breast cancer was 1.04 (95% CI: 1.01, 1.07) compared with nondrinking. Consumption of an additional 1 standard drink per

day was associated with a higher risk of premenopausal (RR: 1.03 (95% CI: 1.01, 1.06)) and postmenopausal (RR: 1.10 (95% CI: 1.08, 1.12)) breast cancer. Alcohol consumption increases female breast cancer risk, even for women who consume one drink per day. Furthermore, alcohol consumption is associated with both pre- and postmenopausal breast cancer risk. These findings support evidence-based cancer prevention guidelines to reduce alcohol-related risks.

**Source:** Sohi, I., Rehm, J., Saab, M., Virmani, L., Franklin, A., Sánchez, G., ... & Shield, K. (2024). Alcoholic beverage consumption and female breast cancer risk: A systematic review and meta-analysis of prospective cohort studies. *Alcohol: Clinical and Experimental Research*. <https://doi.org/10.1111/acer.15493>

## **CHANGES IN SOCIO-ECONOMIC INEQUALITY IN ALCOHOL-ATTRIBUTABLE MORTALITY IN PERIODS OF INCREASING AND DECREASING ALCOHOL AFFORDABILITY**

**December 2024**

**Introduction:** Reducing alcohol affordability reduces alcohol-related harm but its impact on socio-economic inequalities requires further study. We examine changes in alcohol-attributable mortality inequalities in Finland during periods of sharply rising (2000–2007) and falling (2008–2017) alcohol affordability.

**Methods:** Linking individual-level register data on causes of death and socio-demographics for the Finnish population aged  $\geq 25$  in 2000–2017 (68 million person-years), we analysed age-standardised monthly alcohol-attributable mortality rates by sex and income quintile ( $n = 32,699$  alcohol-attributable deaths). Regression models were used to analyse mortality trends in the two periods, contrasting high- and low-income groups.

**Results:** Inequalities in alcohol-attributable mortality between low- and high-income groups were large throughout the study period. During the period of rising alcohol affordability, mortality increased among high-income men with an average monthly increase of 0.17% ( $p = 0.046$ ). This rate was even higher among low-income men, increasing by 0.55% per month, that is, +0.38 percentage points more than the rate for high-income men ( $p = 0.002$ ). Among women, mortality increased at similar rates in both income groups. During the period of falling alcohol affordability, mortality decreased among high-income men with an average monthly decrease of  $-0.21\%$  ( $p < 0.001$ ), and it decreased even more among low-income men ( $-0.40\%$ , i.e.,  $-0.19$  percentage points more,  $p = 0.030$ ). Among women, the decreases were not statistically significant.

**Discussion and Conclusions:** The results indicate that increased alcohol affordability was associated with widening socio-economic inequalities while reduced affordability was linked with narrowing inequalities among men. Reducing alcohol affordability is thus a recommendable policy for reducing socio-economic inequality in alcohol-related harm.

**Source:** Mäkelä, P., & Lindell, E. (2024). Changes in socio-economic inequality in alcohol-attributable mortality in periods of increasing and decreasing alcohol affordability. *Drug and Alcohol Review*. <https://doi.org/10.1111/dar.13989>

## **IS THERE A LINK BETWEEN PER CAPITA ALCOHOL CONSUMPTION AND CANCER MORTALITY?**

**December 2024**

**Introduction:** A growing body of evidence has established alcohol consumption as a causative factor in an increasing array of cancer types, thereby positioning it as a leading global risk factor for cancer. Surprisingly, there is a scarcity of studies examining the extent to which shifts in population drinking affect cancer mortality, despite the substantial public health implications. This paper aims to: (i)

estimate the impact of changes in per capita alcohol consumption on both overall cancer mortality rates and specific types of alcohol-related cancer; and (ii) assess whether the association between cancer and population alcohol consumption is influenced by a country's drinking patterns.

**Methods:** We used time-series data for 19 high-income countries spanning the period 1960–2018. Cigarette sales and GDP per capita were included as control variables. The data were analysed using first-difference modelling. The World Health Organization drinking patterns score was used to evaluate a country's drinking pattern.

**Results:** Our findings revealed that a 1 L per capita increase in alcohol consumption was associated with a 0.9% rise in total cancer mortality among women and a 1.1% increase among men. Notably, among men, the association was more pronounced for cancers with strong evidence of alcohol's effect and for prostate cancer. For women, the alcohol effect was statistically significant for breast cancer. Generally, the estimated alcohol effects were elevated in the country group with more harmful drinking patterns.

**Discussion and Conclusions:** Our results indicate that lowering per capita alcohol consumption is likely to reduce cancer mortality.

**Source:** Dadgar, I., Norström, T., & Ramstedt, M. (2024). Is there a link between per capita alcohol consumption and cancer mortality?. *Drug and Alcohol Review*. <https://doi.org/10.1111/dar.13984>