



RESEARCH SUMMARY

Date Compiled: July 2020

Key takeaways from included research:

- Higher alcohol taxation is protective against alcohol-related morbidity and mortality. The value of alcohol excise taxes has declined since 1970 from both insufficient tax increases and later infrequent tax increases.
- Public awareness of alcohol as a risk factor for breast cancer is low, and public health measures to increase that awareness are warranted.
- In addition to the well-established behavioral risk factors of smoking, alcohol abuse, and lack of physical activity, economic (e.g., recent financial difficulties, unemployment history), social (e.g., childhood adversity, divorce history), and psychological (e.g., negative affectivity) factors were also among the strongest predictors of mortality among older American adults.
- Moderate drinkers “are not immune” from injury and their risk increased at low levels of exposure, measured by number of hours of having a blood alcohol content (BAC) of 0.08 or higher. This risk was greatest for white drinkers compared to black and Hispanic drinkers, according to Alcohol Research Group’s *Policy Research Roundup*.
- Increasing the price of alcohol products may delay alcohol initiation among young people in Chile. Chilean youth who start drinking alcohol later may engage in less harmful drinking practices.

THE RISE AND FALL OF ALCOHOL EXCISE TAXES IN U.S. STATES, 1933–2018

June 2020

Abstract

Objective: Higher alcohol taxation is protective against alcohol-related morbidity and mortality. All states have specific (volume-based) excise taxes for alcohol that decrease if not adjusted for inflation. These taxes have diminished substantially in real terms since their inception after National Prohibition in the United States. The purpose of this study was to examine trends in the magnitude and frequency of changes in state specific excise taxes to document their erosion.

Method: Alcohol excise tax data were examined for all 50 states from 1933 to 2018. Tax data were obtained from the Alcohol Policy Information System, Pacific Institute for Research and Evaluation, Wine Institute, and HeinOnline. Linear and logistic regression analyses were conducted for beer, wine, and distilled spirits taxes to examine trends in the frequency and inflation-adjusted magnitude of changes in taxes from the year of alcohol tax inception.

Results: From 1933 until 1970, beer, wine, and distilled spirits tax rates increased in value compared with inception rates, but by 2018 alcohol taxes had declined 66%, 71%, and 70%, respectively, compared with their inception values. The erosion of taxes after 1970 was driven primarily by declines in the magnitude of tax increases through the 1970s and 1980s, followed by declines in the frequency of tax increases in subsequent decades.

Conclusions: The value of alcohol excise taxes has declined since 1970 from both insufficient tax increases and later infrequent tax increases. Laws that index rates to inflation could sustain the public health benefit of reduced morbidity and mortality resulting from higher alcohol tax rates.

Source: Blanchette, J.G., Ross, C.S. & Naimi, T.S. (2020). The rise and fall of alcohol excise taxes in U.S. states, 1933-2018. *Journal of Studies on Alcohol and Drugs*, 81(3), 331–338.
<https://www.jsad.com/doi/10.15288/jsad.2020.81.331>

ALCOHOL'S EFFECTS ON BREAST CANCER IN WOMEN

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Abstract

Globally, more than 2 million new cases of breast cancer are reported annually. The United States alone has more than 496,000 new cases every year. The worldwide prevalence is approximately 6.8 million cases. Although many risk factors for breast cancer are not modifiable, understanding the role of the factors that can be altered is critical. Alcohol consumption is a modifiable factor. Studies of alcohol in relation to breast cancer incidence have included hundreds of thousands of women. Evidence is consistent that intake, even intake of less than 10-15 grams per day, is associated with increased risk of this disease. In addition, evidence, although less extensive, shows that possible early indicators of risk, such as benign breast disease and increased breast density, are associated with alcohol consumption. Evidence is less strong for differences based on geographic region, beverage type, drinking pattern, or breast cancer subtype. Some studies have examined the association between alcohol and recurrence or survival after a breast cancer diagnosis. These findings are less consistent. Public awareness of alcohol as a risk factor for breast cancer is low, and public health measures to increase that awareness are warranted.

Source: Freudenheim, J.L. (2020). Alcohol's effects on breast cancer in women. *Alcohol Research: Current Review*, 40 (2).
https://www.arcr.niaaa.nih.gov/arcr402/article11.htm?utm_source=GovD&utm_medium=Email&utm_campaign=Issue402Article3

PREDICTING MORTALITY FROM 57 ECONOMIC, BEHAVIORAL, SOCIAL, AND PSYCHOLOGICAL FACTORS

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Abstract

Behavioral and social scientists have identified many nonbiological predictors of mortality. An important limitation of much of this research, however, is that risk factors are not studied in comparison with one another or from across different fields of research. It therefore remains unclear which factors should be prioritized for interventions and policy to reduce mortality risk. In the current investigation, we compare 57 factors within a multidisciplinary framework. These include (i) adverse socioeconomic and psychosocial experiences during childhood and (ii) socioeconomic conditions, (iii) health behaviors, (iv) social connections, (v) psychological characteristics, and (vi) adverse experiences during adulthood. The current prospective cohort investigation with 13,611 adults from 52 to 104 y of age (mean age 69.3 y) from the nationally representative Health and Retirement Study used weighted traditional (i.e., multivariate Cox regressions) and machine-learning (i.e., lasso, random forest analysis) statistical approaches to identify the leading predictors of mortality over 6 y of follow-up time. We demonstrate that, in addition to the well-established behavioral risk factors of smoking, alcohol abuse, and lack of physical activity, economic (e.g., recent financial difficulties, unemployment history), social (e.g., childhood adversity, divorce history), and psychological (e.g., negative affectivity) factors were also among the strongest predictors of mortality among older American adults. The strength of these predictors should be used to guide future transdisciplinary investigations and intervention studies across the fields of epidemiology, psychology, sociology, economics, and medicine to understand how changes in these factors alter individual mortality risk.

Source: Puterman, E., Weiss, J., Hives, B.A., Gemmill, A., Karasek, D., Berry Mendes, W. & Rehkopf, D.H. (2020). Predicting mortality from 57 economic, behavioral, social, and psychological factors. *Proceedings of the National Academy of Sciences*.
<https://www.pnas.org/content/early/2020/06/16/1918455117>

RACIAL/ETHNIC DISPARITIES IN THE RELATIONSHIP OF ALCOHOL-RELATED INJURY AND PERCEIVED DRIVING UNDER THE INFLUENCE FROM HOURS OF EXPOSURE TO HIGH BLOOD ALCOHOL CONCENTRATION: DATA FROM FOUR US NATIONAL ALCOHOL SURVEYS (2000–2015)

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Abstract

Aims: To analyze racial/ethnic disparities in risk of two alcohol-related events, alcohol-related injury and self-reported perceived driving under the influence (DUI) from hours of exposure to an elevated blood alcohol concentration (BAC).

Methods: Risk curves for the predicted probability of these two outcomes from the number of hours of exposure to a BAC ≥ 0.08 mg% in the past year were analyzed separately for whites, blacks and Hispanics in a merged sample of respondents from four US National Alcohol Surveys (2000–2015).

Results: Hours of exposure to a BAC ≥ 0.08 showed a stronger association with perceived DUI than with alcohol-related injury for all racial/ethnic groups. Greater risk was found for whites than blacks or Hispanics for outcomes at nearly all BAC exposure levels, and most marked at the highest level of

exposure. Risk of both outcomes was significant for whites at all exposure levels, but small for alcohol-related injury. Little association was found for alcohol-related injury for blacks or Hispanics. For perceived DUI, risk for blacks was significantly elevated at lower levels of exposure, while risk for Hispanics was significantly elevated beginning at 30 h of exposure.

Conclusions: Findings showed racial/ethnic differences in risk of alcohol-related injury and perceived DUI from hours of exposure to elevated BAC. Risk increased at relatively low levels of exposure to a BAC ≥ 0.08 , especially for whites, highlighting the importance of preventive efforts to reduce harmful outcomes for moderate drinkers.

Source: Cherpitel, C.J., Williams, E., Ye, Y. & Kerr, W.C. (2020). Racial/ethnic disparities in the relationship of alcohol-related injury and perceived driving under the influence from hours of exposure to high blood alcohol concentration: Data from four U.S. National Alcohol Surveys (2000–2015). *Alcohol and Alcoholism*.

<http://arg.org/news/white-moderate-drinkers-are-at-a-high-risk-of-alcohol-related-injuries/>

PRICES, ALCOHOL USE INITIATION AND HEAVY EPISODIC DRINKING AMONG CHILEAN YOUTH **June 2020**

Abstract

Design: We estimated discrete-time hazard models using retrospective data and generalized ordered probit models with repeated cross-sectional data.

Setting: Chile.

Participants: A total of 248,336 urban youth who attended secondary school between 2003 and 2015 and self-reported ever having tried alcohol.

Measurements: We created drinking histories from self-reported responses of age, age of alcohol use initiation and year/month of survey. From two self-reported responses, we created a four-category ordinal variable of heavy episodic drinking: 0, 1-2, 3-9, and more than 10 HED episodes in the past 30 days. We constructed a monthly measure of real alcohol prices using the all-items and alcohol component of the Consumer Price Index compiled by Chile's statistical agency, the Instituto Nacional de Estadísticas.

Findings: First, we found negative, statistically significant and policy-meaningful associations between alcohol prices and the age of alcohol use initiation. The estimated price elasticity of delay was -0.99 (95% CI -1.30, -0.69). A 10% increase in real alcohol prices was associated with delayed alcohol use initiation of about 6.6 months. Second, we found that youth who had started drinking alcohol at a later age had statistically significant and substantially lower probabilities of having reported HED during the previous month. For example, youth who started drinking at 16 were 4.9 (95% CI, 4.2 to 5.6) percentage points more likely to have reported no HED in the previous month relative to youth who started drinking alcohol when 12 years old or younger.

Conclusions: Increasing the price of alcohol products may delay alcohol initiation among young people in Chile. Chilean youth who start drinking alcohol later may engage in less harmful drinking practices.

Source: Paraje, G.R., Guindon, G.E. & Chaloupka, F.J. (2020). Prices, alcohol use initiation and heavy episodic drinking among Chilean youth. *Addiction*.

<https://onlinelibrary.wiley.com/doi/abs/10.1111/add.15167>