projectextramile
PREVENTING ALCOHOL-RELATED HARM

RESEARCH SUMMARY
Date Compiled: August 2018

Key Takeaways from Included Research

- An analysis of alcohol outlets (on- and off-premise) in 53 California cities from 2000-2013 found that living in an area of high alcohol outlet density was a "predictable and powerful social determinant of health," since densities tended to be higher in block groups with lower income.

- The success that Iceland has achieved in reducing underage drinking – both through public policies and alcohol-free programs and events – can be a model for our communities.

- A study of the effects of dietary recommendations on cancer risk (including overall, breast, prostate, and colorectal cancer risk) led the authors to the conclusion that the specific recommendation to avoid alcohol played a major difference in the relative value of the diets.

- Health policy interventions that can decrease population alcohol and tobacco consumption may lead to a reduction in cancer mortality over a 20-year period, according to a study which looked at long-term associations of alcohol and tobacco consumption with overall cancer mortality in the Australian population, looking across different sex and age groups.

- Mortality due to cirrhosis has been increasing in the US since 2009, driven by deaths due to alcoholic cirrhosis, with people aged 25-34 experiencing the greatest relative increase in mortality.

- Harm from others' drinking (also known as second-hand effects of alcohol) is a major problem globally. A study found that women tend to experience this harm from a drinker in close proximity to them (a partner, family member, or household member), while men were more impacted by extended relationships.

LONGITUDINAL IMPACTS OF TWO CAUSAL DRIVERS OF ALCOHOL DEMAND ON OUTLET CONCENTRATIONS WITHIN COMMUNITY SETTINGS: POPULATION SIZE AND INCOME EFFECTS
July 2018

Abstract

We analyzed counts of licensed bars, restaurants and off-premise alcohol outlets within 53 California cities from 2000-2013. Poisson models were used to assess overall space-time associations between outlet numbers and population size and median household income in local and spatially adjacent block groups. We then separated covariate effects into distinct spatial and temporal components ("decomposed" models). Overall models showed that densities of all outlet types were generally greatest within block groups that had lower income, were adjacent to block groups with lower income, had greater populations, and were adjacent to block groups that had greater populations. Decomposed models demonstrate that over time greater income was associated with increased

counts of bars, and greater population was associated with greater numbers of restaurants and off-premise outlets. Acknowledging the many negative consequences for populations living in areas of high outlet density, these effects are a predictable and powerful social determinant of health.

Source:

Jin, Z., Chang, H. H., Ponicki, W. R., Gaidus, A., Waller, L. A., Morrison, C., & Gruenewald, P. J. (2018). Longitudinal impacts of two causal drivers of alcohol demand on outlet concentrations within community settings: Population size and income effects. *Spatial and Spatio-temporal Epidemiology.* https://doi.org/10.1016/j.sste.2018.07.003

MODERATION AND THE ICELANDIC MODEL
July 2018

Overall, Americans are consuming less alcohol. This is especially true for young adults and underage youth who are drinking a lot less than past generations. Part of this phenomenon may be due to our focus on reducing underage drinking, but there is also a health trend that promotes healthy eating and fitness. Young adults may be more likely to look at labels for ingredients, calorie and alcohol content. It seems clear that a concern about health has impacted alcohol consumption. Millennials say that they anticipate not drinking as much as their parent's generation.

For alcohol, this trend in moderation has spawned various projects and programs. An example is Dry January, which started in the United Kingdom in 2013 and this year had over 3 million participants. We have also seen programs touting "mindful drinking" whereby one chooses to drink less or not at all; and, organizations like Better Drinking Culture, Hello Sunday Morning and Club Soda have resources for joining the mindful drinking movement. Daybreakers has organized close to 200 drug- and alcohol-free, morning dance parties since it started in 5 years ago …

For communities that want to see further progress in youth use of alcohol and drugs, these programs are worth exploring.

Source: Healthy Alcohol Marketplace

Free full text: http://healthyalcoholmarket.com/wordpress/

CANCER-SPECIFIC AND GENERAL NUTRITIONAL SCORES AND CANCER RISK: RESULTS FROM THE PROSPECTIVE NUTRINET-SANTÉ COHORT
July 2018

Abstract

Several national and international authorities have proposed nutritional and lifestyle recommendations with the aim of improving health of the general population. Scores of adherence to these recommendations can be calculated at the individual level. Here, we investigated the associations between four nutritional scores and overall, breast, prostate, and colorectal cancer risk in a large prospective population-based cohort: the cancer-specific World Cancer Research Fund/American Institute for Cancer Research (WCRF/AICR) score, the Alternate Healthy Eating Index 2010 (AHEI-2010), a score based on adherence to the Mediterranean diet (MEDI-LITE), and the French National Nutrition Health Program-Guideline Score (PNNS-GS). This study included 41,543 participants aged ≥40 years from the NutriNet-Santé cohort (2009–2017). A total of 1,489 overall incident cancers were

diagnosed. A one-point increment of the WCRF/AICR score was significantly associated with decreased overall [12%; 95% confidence interval (CI), 8%–16%; P < 0.0001], breast (14%; 95% CI, 6%–21%; P = 0.001), and prostate (12%; 95% CI, 0%–22%; P = 0.05) cancer risks. Hazard ratio for colorectal cancer risk was 0.86 (95% CI, 0.72–1.03; P = 0.09). The PNNS-GS score was associated with reduced colorectal cancer risk (P = 0.04) and AHEI-2010 was associated with reduced overall cancer risk (P = 0.03). The WCRF/AICR score performed best. Compared with other tested scores, it included a stronger penalty for alcohol, which is a major risk factor for several cancer sites. Better adherence to nutritional recommendations, especially those designed for cancer prevention, could substantially contribute to decreased cancer incidence.

Significance: This large prospective population-based cohort study suggests that following dietary recommendations such as the ones proposed by the World Cancer Research Fund/American Institute for Cancer Research could significantly contribute to cancer prevention.

Source:

Lavalette, C., Adjibade, M., Srour, B., Sellem, L., Fiolet, T., Hercberg, S., et al. (2018). Cancer-specific and general nutritional scores and cancer risk: Results from the Prospective NutriNet-Santé Cohort. *Cancer Research.*

Related Press Release: https://www.aacr.org/Newsroom/Pages/News-Release-Detail.aspx?ItemID=1209&utm#.W2RS2dJKiUk

TEMPORAL ASSOCIATIONS OF ALCOHOL AND TOBACCO CONSUMPTION WITH CANCER MORTALITY
July 2018

Abstract

Importance: Understanding whether the population-level consumption of alcohol and tobacco is associated with cancer mortality is a crucial question for public health policy that has not been answered by previous studies.

Objective: To examine temporal associations of alcohol and tobacco consumption with overall cancer mortality in the Australian population, looking across different sex and age groups.

Design, Setting, and Participants: This population-based cohort study conducted a time series analysis (autoregressive integrated moving average models) using aggregate-level annual time series data from multiple sources. Data on alcohol consumption and tobacco consumption per capita between 1935 and 2014 among the Australian population aged 15 years and older were collected from the Australian Bureau of Statistics and Cancer Council Victoria. Analysis was conducted from June 1, 2017, to October 30, 2017.

Exposures: Sex- and age-specific cancer mortality rates from 1968 to 2014 were collected from the Australian Institute Health and Welfare.

Main Outcomes and Measures: Population-level cancer mortality in different sex and age groups in Australia, controlling for the effects of health expenditure.

Results: Among the Australian total population aged 15 years and older in this study, 50.5% were women. Cancer death rates per 100 000 persons increased from 199 in 1968 to 214 in 1989 and then decreased steadily to 162 in 2014. Taking into account lagged effects, 1-L decreases in alcohol consumption per capita were associated with a decline of 3.9% in overall cancer mortality over a 20-

year period, and 1-kg decreases in tobacco consumption per capita were associated with a 16% reduction. Alcohol consumption per capita was significantly associated with overall cancer mortality among men aged 50 to 69 years and women aged 50 years and older. Tobacco consumption per capita was found to be significantly associated with overall cancer mortality only among men aged 50 years and older.

Conclusions and Relevance: In this study, alcohol consumption per capita was positively associated with overall cancer mortality among older men and women, and tobacco consumption per capita was positively associated with overall cancer mortality among older men over a 20-year period. This study provides evidence that a decrease in population-level drinking and tobacco smoking could lead to a reduction in cancer mortality.

Source:

Jiang, H., Livingston, M., Room, R., Chenhall, R., & English, D. R. (2018). Temporal associations of alcohol and tobacco consumption with cancer mortality. *JAMA Network Open, 1*(3), e180713-e180713.

Free full text: https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2687388

Related Media Coverage:

Medical XPress: Alcohol, tobacco consumption tied to cancer mortality

MORTALITY DUE TO CIRRHOSIS AND LIVER CANCER IN THE UNITED STATES, 1999-2016: OBSERVATIONAL STUDY
July 2018

Abstract

Objective: To describe liver disease related mortality in the United States during 1999-2016 by age group, sex, race, cause of liver disease, and geographic region.

Design: Observational cohort study.

Setting: Death certificate data from the Vital Statistics Cooperative, and population data from the US Census Bureau compiled by the Center for Disease Control and Prevention's Wide-ranging Online Data for Epidemiologic Research (1999-2016).

Participants: US residents.

Main outcome measure: Deaths from cirrhosis and hepatocellular carcinoma, with trends evaluated using joinpoint regression.

Results: From 1999 to 2016 in the US annual deaths from cirrhosis increased by 65%, to 34 174, while annual deaths from hepatocellular carcinoma doubled to 11 073. Only one subgroup—Asians and Pacific Islanders—experienced an improvement in mortality from hepatocellular carcinoma: the death rate decreased by 2.7% (95% confidence interval 2.2% to 3.3%, P<0.001) per year. Annual increases in cirrhosis related mortality were most pronounced for Native Americans (designated as "American Indians" in the census database) (4.0%, 2.2% to 5.7%, P=0.002). The age adjusted death rate due to hepatocellular carcinoma increased annually by 2.1% (1.9% to 2.3%, P<0.001); deaths due to cirrhosis began increasing in 2009 through 2016 by 3.4% (3.1% to 3.8%, P<0.001). During

2009-16 people aged 25-34 years experienced the highest average annual increase in cirrhosis related mortality (10.5%, 8.9% to 12.2%, P<0.001), driven entirely by alcohol related liver disease. During this period, mortality due to peritonitis and sepsis in the setting of cirrhosis increased substantially, with respective annual increases of 6.1% (3.9% to 8.2%) and 7.1% (6.1% to 8.4%). Only one state, Maryland, showed improvements in mortality (−1.2%, −1.7% to −0.7% per year), while many, concentrated in the south and west, observed disproportionate annual increases: Kentucky 6.8% (5.1% to 8.5%), New Mexico 6.0% (4.1% to 7.9%), Arkansas 5.7% (3.9% to 7.6%), Indiana 5.0% (3.8% to 6.1%), and Alabama 5.0% (3.2% to 6.8%). No state showed improvements in hepatocellular carcinoma related mortality, while Arizona (5.1%, 3.7% to 6.5%) and Kansas (4.3%, 2.8% to 5.8%) experienced the most severe annual increases.

Conclusions: Mortality due to cirrhosis has been increasing in the US since 2009. Driven by deaths due to alcoholic cirrhosis, people aged 25-34 have experienced the greatest relative increase in mortality. White Americans, Native Americans, and Hispanic Americans experienced the greatest increase in deaths from cirrhosis. Mortality due to cirrhosis is improving in Maryland but worst in Kentucky, New Mexico, and Arkansas. The rapid increase in death rates among young people due to alcohol highlight new challenges for optimal care of patients with preventable liver disease.

Source:

Tapper, E. B., & Parikh, N. D. (2018). Mortality due to cirrhosis and liver cancer in the United States, 1999-2016: observational study. *BMJ, 362*, k2817.

Free full text: https://www.bmj.com/content/362/bmj.k2817

Related Media Coverage:

Newsweek: More Americans Are Dying from A Liver Disease Caused By Rise In Excessive Drinking, Study Says

Harm from Known Others' Drinking by Relationship Proximity to the Harmful Drinker and Gender: A Meta-Analysis Across 10 Countries
July 2018

Abstract

Background: Drinking is a common activity with friends or at home but is associated with harms within both close and extended relationships. This study investigates associations between having a close proximity relationship with a harmful drinker and likelihood of experiencing harms from known others' drinking for men and women in 10 countries.

Methods: Data about alcohol's harms to others from national/regional surveys from 10 countries were used. Gender-stratified random-effects meta-analysis compared the likelihood of experiencing each, and at least 1, of 7 types of alcohol-related harm in the last 12 months, between those who identified someone in close proximity to them (a partner, family member, or household member) and those who identified someone from an extended relationship as the most harmful drinker (MHD) in their life in the last 12 months.

Results: Women were most likely to report a close male MHD, while men were most likely to report an extended male MHD. Relatedly, women with a close MHD were more likely than women with an

extended MHD to report each type of harm, and 1 or more harms, from others' drinking. For men, having a close MHD was associated with increased odds of reporting some but not all types of harm from others' drinking and was not associated with increased odds of experiencing 1 or more harms.

Conclusions: The experience of harm attributable to the drinking of others differs by gender. For preventing harm to women, the primary focus should be on heavy or harmful drinkers in close proximity relationships; for preventing harm to men, a broader approach is needed. This and further work investigating the dynamics among gender, victim–perpetrator relationships, alcohol, and harm to others will help to develop interventions to reduce alcohol-related harm to others which are specific to the contexts within which harms occur.

Source:

Stanesby, O., Callinan, S., Graham, K., Wilson, I. M., Greenfield, T. K., Wilsnack, S. C., et al. (2018). Harm from known others' drinking by relationship proximity to the harmful drinker and gender: A meta-analysis across 10 countries. *Alcoholism: Clinical and Experimental Research.*