projectextramile
PREVENTING ALCOHOL-RELATED HARM

RESEARCH SUMMARY
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Key takeaways from included research:

- A new study examined the annual number of deaths from excessive alcohol use, particularly among adults aged 20 to 64 years. They found that an estimated 1 in 8 total deaths among US adults in that age category were attributable to excessive alcohol use. Among adults aged 20-49 this number increased to 1 in 5 deaths. Researchers suggests deaths could be prevented through greater implementation of evidence-based policies and practices such as increasing alcohol taxes and regulating alcohol outlet density.
- Researchers examined the impacts of parental drinking habits on young children's perceptions of who drinks alcohol. They concluded that there are gender-specific exposures that impact children's perceptions of drinking norms, particularly the mother. The study provides an insight on how parental consumption impacts young children's perceptions for future drinking behaviors.
- Alcohol-related mortality is an important public health concern along with the opioid epidemic in the USA. Researchers wanted to examine disparities between educational and racial and ethnic groups as it relates to opioid, alcohol, and combined alcohol and opioid poisonings. They found a 6.4-fold increase in opioid poisoning deaths, 4.6-fold increase in combined alcohol and opioid poisoning deaths, and a 2.1-fold increase in alcohol poisoning deaths between 2000 and 2019. All types of poisonings indicated increasing gaps between low and high education, the highest inequalities being among opioid-involved poisonings for non-Hispanic Black and White men and women. These findings are crucial for establishing targeted public health interventions to reduce poisoning mortality and the associated socioeconomic inequalities.

ESTIMATED DEATHS ATTRIBUTABLE TO EXCESSIVE ALCOHOL USE AMONG US ADULTS AGED 20 TO 64 YEARS, 2015 TO 2019

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Importance: Alcohol consumption is a leading preventable cause of death in the US, and death rates from fully alcohol-attributable causes (eg, alcoholic liver disease) have increased in the past decade, including among adults aged 20 to 64 years. However, a comprehensive assessment of alcohol-attributable deaths among this population, including from partially alcohol-attributable causes, is lacking.

Objective: To estimate the mean annual number of deaths from excessive alcohol use relative to total deaths among adults aged 20 to 64 years overall; by sex, age group, and state; and as a proportion of total deaths.

Design, Setting, and Participants: This population-based cross-sectional study of mean annual alcohol-attributable deaths among US residents between January 1, 2015, and December 31, 2019, used population-attributable fractions. Data were analyzed from January 6, 2021, to May 2, 2022.

Exposures: Mean daily alcohol consumption among the 2 089 287 respondents to the 2015-2019 Behavioral Risk Factor Surveillance System was adjusted using national per capita alcohol sales to correct for underreporting. Adjusted mean daily alcohol consumption prevalence estimates were applied to relative risks to generate alcohol-attributable fractions for chronic partially alcohol-attributable conditions. Alcohol-attributable fractions based on blood alcohol concentrations were used to assess acute partially alcohol-attributable deaths.

Main Outcomes and Measures: Alcohol-attributable deaths for 58 causes of death, as defined in the Centers for Disease Control and Prevention's Alcohol-Related Disease Impact application. Mortality data were from the National Vital Statistics System.

Results: During the 2015-2019 study period, of 694 660 mean deaths per year among adults aged 20 to 64 years (men: 432 575 [66.3%]; women: 262 085 [37.7%]), an estimated 12.9% (89 697 per year) were attributable to excessive alcohol consumption. This percentage was higher among men (15.0%) than women (9.4%). By state, alcohol-attributable deaths ranged from 9.3% of total deaths in Mississippi to 21.7% in New Mexico. Among adults aged 20 to 49 years, alcohol-attributable deaths (44 981 mean annual deaths) accounted for an estimated 20.3% of total deaths.

Conclusions And Relevance: The findings of this cross-sectional study suggest that an estimated 1 in 8 total deaths among US adults aged 20 to 64 years were attributable to excessive alcohol use, including 1 in 5 deaths among adults aged 20 to 49 years. The number of premature deaths could be reduced with increased implementation of evidenced-based, population-level alcohol policies, such as increasing alcohol taxes or regulating alcohol outlet density.

Source: Esser MB, Leung G, Sherk A, et al. Estimated Deaths Attributable to Excessive Alcohol Use Among US Adults Aged 20 to 64 Years, 2015 to 2019. *JAMA Netw Open.* 2022;5(11):e2239485. https://doi.org/10.1001/jamanetworkopen.2022.39485

In the News: Alia Conley. (2022, November 4). CDC: 1 in 8 deaths among Nebraskans, Iowans ages 20-64 related to alcohol. *Omaha World-Herald*. https://omaha.com/news/local/cdc-1-in-8-deaths-among-nebraskans-iowans-ages-20-64-related-to-alcohol/article_b1a98bfa-5c55-11ed-8462-3f0a294c0f63.html

EFFECTS OF EXPOSURE TO MOTHER'S AND FATHER'S ALCOHOL USE ON YOUNG CHILDREN'S NORMATIVE PERCEPTIONS OF ALCOHOL

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Background: While consumption of alcohol does not often begin until early adolescence, young children are highly capable of internalizing normative information through observational learning. We used a longitudinal multiple-informant family study to examine the impact of exposure to mothers' and fathers' drinking on young children's normative perceptions of who drinks alcohol.

Methods: Three hundred twenty-nine children (4 to 6 years old at baseline [Mage 4.78 (SD = 0.725)], 51% girls) completed the Dutch electronic appropriate beverage task [eABT] where they attributed alcoholic beverages to a variety of persons depicted in an illustrated scenario. Their parents completed an online survey that included information on alcohol use and exposure.

Results: Children more frequently exposed to their mothers' drinking provided females shown in the eABT illustrations with alcohol significantly more often than children less frequently exposed to mothers' drinking. There was no effect of mother's exposure on providing males in the eABT with alcoholic beverages. Similarly, children more frequently exposed to their fathers' drinking provided fathers with alcoholic beverages significantly more often than children less frequently exposed to their fathers' drinking. There was no effect of father's exposure on providing the females with alcoholic beverages, nor was there an effect of father's exposure on providing “other males” with alcohol. These patterns held after adjusting for age and sex.

Conclusions: This study demonstrates that there are gender-specific effects of exposure to parents' (particularly mothers') drinking on young children's perceptions of person-specific drinking norms. The findings provide unique evidence in a young population group of effects on an understudied dimension of alcohol-related perceptions with implications for future drinking behavior.

Source: Cook, M., Smit, K., Voogt, C., Kuntsche, S., & Kuntsche, E. (2022). Effects of exposure to mother's and father's alcohol use on young children's normative perceptions of alcohol. *Alcoholism: clinical and experimental research*, *46*(9), 1687-1694. https://doi.org/10.1111/acer.14902

TRENDS IN MORTALITY FROM ALCOHOL, OPIOID, AND COMBINED ALCOHOL AND OPIOID POISONINGS BY SEX, EDUCATIONAL ATTAINMENT, AND RACE AND ETHNICITY FOR THE UNITED STATES 2000–2019

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Background: The ongoing opioid epidemic and increases in alcohol-related mortality are key public health concerns in the USA, with well-documented inequalities in the degree to which groups with low and high education are affected. This study aimed to quantify disparities over time between educational and racial and ethnic groups in sex-specific mortality rates for opioid, alcohol, and combined alcohol and opioid poisonings in the USA.

Methods: The 2000–2019 Multiple Cause of Death Files from the National Vital Statistics System (NVSS) were used alongside population counts from the Current Population Survey 2000–2019. Alcohol, opioid, and combined alcohol and opioid poisonings were assigned using ICD-10 codes. Sex-stratified generalized least square regression models quantified differences between educational and racial and ethnic groups and changes in educational inequalities over time.

Results: Between 2000 and 2019, there was a 6.4-fold increase in opioid poisoning deaths, a 4.6-fold increase in combined alcohol and opioid poisoning deaths, and a 2.1-fold increase in alcohol poisoning deaths. Educational inequalities were observed for all poisoning outcomes, increasing over time for opioid-only and combined alcohol and opioid mortality. For non-Hispanic White Americans, the largest educational inequalities were observed for opioid poisonings and rates were 7.5 (men) and

7.2 (women) times higher in low compared to high education groups. Combined alcohol and opioid poisonings had larger educational inequalities for non-Hispanic Black men and women (relative to non-Hispanic White), with rates 8.9 (men) and 10.9 (women) times higher in low compared to high education groups.

Conclusions: For all types of poisoning, our analysis indicates wide and increasing gaps between those with low and high education with the largest inequalities observed for opioid-involved poisonings for non-Hispanic Black and White men and women. This study highlights population sub-groups such as individuals with low education who may be at the highest risk of increasing mortality from combined alcohol and opioid poisonings. Thereby the findings are crucial for the development of targeted public health interventions to reduce poisoning mortality and the socioeconomic inequalities related to it.

Source: Buckley, C., Ye, Y., Kerr, W. C., Mulia, N., Puka, K., Rehm, J., & Probst, C. (2022). Trends in mortality from alcohol, opioid, and combined alcohol and opioid poisonings by sex, educational attainment, and race and ethnicity for the United States 2000–2019. *BMC Medicine*, *20*(1), 1-12. https://doi.org/10.1186/s12916-022-02590-z