Call for a Population-Based Response to a Doubling of Alcohol-Related Mortality in the United States

In 2016, 5.3% of all deaths and 5.1% of the global burden of disease were attributable to alcohol use, despite a minority of the world's population being currcent drinkers (past 30 days) and an even smaller minority classified as heavy episodic drinkers (those who consumed at least 60 grams or more of pure alcohol on one occasion in the past 30 days).[1] A comparable amount is defined as binge drinking in the United States and is equivalent to five or more standard US alcoholic drinks on a single occasion for men or four drinks for women at least once in the last month.[2] In light of escalating alcohol-related global mortality rates, public health leaders have called on nations to increase efforts to meet international pledges to reduce harmful use through stronger alcohol control policies.[1]

We argue that (1) excessive alcohol consumption contributes to large-scale, preventable mortality and morbidity in the United States; (2) alcohol-related morbidity and mortality are rising rapidly and are costly; (3) proven population-level interventions to address excessive alcohol consumption and its related harms have not kept pace with alcohol industry expansions; and (4) the United States must move swiftly to adopt stronger population-level interventions, including reversing pending legislation that seeks to make permanent what are now temporary tax abatements that disproportionately benefit the largest alcohol producers.

Drinking is popular in the United States. In 2018, for example, 70% of the population aged 18 years or older (about 175.4 million people) consumed alcohol. A recent meta-analysis confirmed an overall significant net increase in alcohol consumption of approximately 3% per decade. Increases were greatest among women (0.6% per year), Black persons (1.0% per year), and those older than 50 years (0.6% per year) between the years 2000 and 2016.[3] The same study found a net increase of 7.5% in binge drinking per decade.

These increases in alcohol consumption parallel critical changes in health service use since the turn of the century. Between 2006 and 2014, overall emergency department visits involving alcohol consumption increased by 62% (from 3 080 214 to 4 976 136), whereby acute alcohol-related emergency department visits increased 51.5% (from 1 801 006 to 2 728 313), and chronic alcohol-related visits (e.g., alcohol-related psychosis, alcohol-related liver disease) increased 75.7% (from 1 279 208 to 2 247 823).[4] Similarly, the number of hospitalizations related to alcohol consumption increased 76.3% (from 1 461 700 to 2 576 600) between the years 2000 and 2015.[5]

The growth in alcohol-related hospital encounters is not the only consequence of changes in alcohol consumption. Alcohol is a risk factor for more than 200 illnesses, including at least seven forms of cancer; liver disease; infectious diseases; unintentional injuries; violent crime, including physical and sexual assault and homicide; major depression; and suicide.[1] A study from the National Center for Health Statistics found that alcohol-related deaths for those aged 16 years and older doubled from 35 914 in 1999 to 72 558 in 2017, such that the overall age-adjusted death rate increased 50.9% (from 16.9 to 25.5 per 100 000). Alcohol-related mortality accounted for 1.5% of approximately 2.4 million deaths among those aged 16 years and older in 1999 and 2.6% of 2.8 million deaths in 2017.[6] Importantly, these figures may understate the scope of the problem. Death certificates list a single code indicating an underlying cause of death and up to 20 additional codes indicating multiple causes. As such, death certificates often underreport alcohol's role.

Excessive drinking cost the United States nearly $250 billion in 2010, the last year data were available, and taxpayer dollars covered approximately 40% of the costs. Most of the costs were attributable to binge drinking (77%). Nationally, uncompensated costs associated with alcohol-related morbidity and mortality average about $2 per drink consumed, largely attributable to lost productivity (72%) and health care (11%) costs. Although the costs related to excessive alcohol consumption vary by state, the median cost per state was $3.5 billion.[7]

As alcohol-related morbidity, mortality, and mounting public

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This editorial was accepted July 30, 2020.

https://doi.org/10.2105/AJPH.2020.305904

health costs take an ever-increasing toll on society, alcohol revenues have grown consistently over the last decade and are expected to reach record-setting levels by 2025. Between 2008 and 2019, supplier gross revenues increased by 55% for spirits, 39% for wine, and 22% for beer. The growth of revenues parallels a recent rapid expansion in the number of US craft wineries, distilleries, and breweries.

POLICY CONTEXT

Despite a lack of consistent evidence for the durable effects of individual-level interventions such as classroom educational programs, these strategies are often implemented instead of proven population-level measures to address alcohol-related harms in the United States. However, strategies focused on individuals are rarely as effective as those focused on populations. Tobacco, for example, was a known health hazard for many years, but rates of smoking across the population remained high despite consistent implementation of individually focused interventions. It was not until the implementation of population-level measures, such as prohibiting smoking in indoor public spaces, advertising restrictions, and increasing tobacco taxes, that tobacco use decreased and health indicators improved. The lessons from alcohol and tobacco show that improving the health of communities often requires a combination of such population-level policies to improve health.

After the repeal of national Prohibition in 1933, states were granted primary authority to regulate and tax alcohol. This means that states and local communities, to the extent granted by the state, control most laws and licensing related to alcohol. The alcohol industry has long been involved in policymaking, and evidence indicates that industry influence on governmental decision-making is expanding. At the same time, pressure from retailers, including large chain stores, has increased to reduce restrictions on sales. Not surprisingly, over the last several years, some states have begun to relax regulations to encourage sales in the hopes of bolstering tax revenue.

Pressures to increase alcohol availability have become multifaceted. They include the targeting of regulations that support the three-tier system that separates alcohol producers and importers from distributors and retailers. This system was designed to ensure product safety and to reduce monopoly influences. Economic and political pressures include those to increase the number of producers and outlets and to expand outlet hours and days of operation, as well as home delivery. In addition, public health attempts to reduce harmful consumption by increasing the cost of alcohol by boosting taxes have met strong resistance. The weakening of these core public health strategies parallels rising alcohol consumption trends, including heavy alcohol use across men and women and nearly all racial/ethnic groups.[3] These increases should raise an alarm; the doubling of alcohol-related mortality must compel communities, public health leaders, and policymakers to action.[6]

The World Health Organization recommends three essential evidence-based policy strategies to reduce population-level alcohol-related harms: (1) curtail alcohol advertising, (2) limit alcohol availability, and (3) increase price. These strategies are both effective and efficient.

Curtail Alcohol Advertising

The alcohol industry uses media advertising to effectively target youths and young adults who cannot drink legally, such that alcohol marketing influences the age at alcohol use initiation, binge drinking, and young peoples' future use patterns. The alcohol industry has championed the current system of marketing "self-regulation." However, industry self-monitoring initiatives appear to help the industry positively influence public opinion about alcohol and counter public health narratives about risk. Such self-monitoring systems are ineffective given growing evidence that exposure to alcohol marketing is related to drinking onset during adolescence and to binge drinking.

In addition, a recent evaluation (https://bit.ly/2YEoNPr) of the effect of alcohol industry actions purported to reduce alcohol consumption and alcohol-related harms concluded that nearly all of the actions lacked scientific support (97%) and that one in 10 had the potential to directly harm the population by promoting alcohol use in general or alcohol use in risky situations such as driving (11%). Consequently, government-imposed media advertising bans, including digital media and in-person venues known to draw large numbers of young people, may be necessary. In the absence of a total advertising ban, a governmental regulatory scheme that describes where and to whom the industry can advertise and what advertising content is acceptable should be implemented.

Limit Alcohol Availability

Limiting access to and availability of alcohol is a highly effective method to reduce alcohol-related harms. Three key strategies to limit availability are maintaining government-controlled distribution and retail systems, restricting geographic density of alcohol outlets, and constraining alcohol outlets' operating days and hours.

1. Maintaining government-controlled distribution and retail systems: States manage alcohol sales in one of two ways: they issue licenses to the entities that will manufacture, distribute, and sell alcoholic beverages ("license" states) or they act as market participants involved in the actual distribution and retail sale of the product, most commonly around spirits ("control" states). Control states can more easily adopt regulations such as determining retail locations and restricting promotions; movement from a control system toward increased privatization is associated with more alcohol outlets, longer hours of sale, increases in motor vehicle crashes, and greater per capita alcohol sales.
2. Restricting geographic density of alcohol outlets and limiting delivery services: Consistent research shows that communities with a greater density of alcohol outlets (e.g., outlets per roadway mile or outlets per capita) are at greater risk for experiencing problems related to excessive alcohol consumption, including crime and motor vehicle crashes. The rise of online ordering and home delivery services increases the immediate availability of alcohol and can circumvent density regulations.

THREE-STEP CALL TO ACTION TO REDUCE US POPULATION-LEVEL ALCOHOL-RELATED HARMS

Step 1: Assess the Extent of Likely Harms

State-level data are readily available for states to estimate the prevalence of both alcohol consumption and excessive alcohol consumption, including the Centers for Disease Control and Prevention's Alcohol Related Disease Impact application, Behavioral Risk Factor Surveillance System, Youth Risk Behavior Surveillance System, and Substance Abuse and Mental Health Services Administration's National Survey on Drug Use and Health. States also can assess whether the strength of their alcohol policy environment is consistent with current evidence by using resources such as the National Institute on Alcohol Abuse and Alcoholism's Alcohol Policy Information System and the Alcohol Policy Score to reduce binge drinking. These resources can help state and local leaders assess the best strategies for their specific needs as well as the feasibility of implementation.

Step 2: Take State and Local Action to Curtail Advertising, Limit Availability, and Increase Price

Curtail advertising

- Restrict alcohol advertising and marketing through all media, specifically media accessed by younger people. This includes advertising and marketing on the Internet, at sporting and other community events, on billboards, on local retail signage, and at the point of sale.

Limit availability

- Encourage policies that further support government controls to regulate the sale of alcohol and prevent further privatization.
- Limit the density of alcohol retail outlets, including practices that permit direct shipment and home delivery of alcohol, in communities through state and local licensing and zoning controls.
- Oppose policies that extend the hours and days (e.g., holidays, Sundays) of alcohol sales.
- Support increased funding for enforcement and monitoring capabilities.

Increase price

- Apply ad valorem taxes, which are calculated as a percentage of the price of the beverage (similar to sales tax), to be imposed at either the wholesale or the retail level.
- Defeat H.R.1175, Craft Beverage Modernization and Tax Reform Act of 2019, which would reduce the federal alcohol excise tax rate by approximately 20% with marginal benefits to small companies while creating a windfall for large brewers and distillers.
- Consider a mix of ad valorem and excise taxes, which strengthens the relation between the price of alcohol and the reductions in binge drinking.
- Implement minimum unit pricing, which targets excessive drinkers and can be applied to different alcoholic beverages at different rates. This strategy is particularly relevant for the heaviest drinkers because they tend to pay less per unit of alcohol than do those who drink less. Pricing may be set by linking the lowest price paid for the alcohol to the units of ethanol in the beverage.
- Oppose policies that allow drink specials that reduce the price of drinks for specific days, hours of sale, or occasions (e.g., happy hours, ladies' nights).

Step 3: Take National Action to Strengthen State and Local Prevention Capacity to Reduce Alcohol Misuse and Assess Policy Effectiveness

Public health and prevention professionals, as well as similarly aligned organizations and community members, should advocate the following:

- Adopt more effective surveillance of public health and enforcement data to assess and monitor alcohol sales and the growing alcohol outlet markets in real time.
- Expand federal funding to support the creation of local coalitions and community efforts dedicated to the scientific-based prevention of excessive alcohol consumption.
- Encourage financial support from large foundations and the federal government to assess alcohol and other drug policies.
- Support an international effort to adopt a Framework Convention on Alcohol Control similar to the Framework Convention on Tobacco Control.

3. Constraining alcohol outlets' operating days and hours: Extending either hours or days of operation is associated with higher rates of alcohol use, motor vehicle crashes, crime, and alcohol-related injuries.

Increase Price

Increases in alcohol prices are commonly achieved through increases in taxes. Higher alcohol taxes are associated with reductions in alcohol consumption and related problems. Several taxation structures can be considered, including excise taxes, which are based on volume or ethanol, and ad valorem taxes, which are based on beverage price. Demand for distilled spirits is the most responsive to price, and beer is the least responsive. Excise taxes account for 20% of total state alcohol revenue taxes but cover only 10% of alcohol-related costs.

Although increasing alcohol taxes is one of the most effective policies to reduce alcohol consumption and related harms, federal alcohol excise taxes have not been increased since 1991, whereas inflation-adjusted value of states' excise taxes has declined by about 30%.

CONCLUSIONS

Alcohol-related morbidity and mortality constitute a serious and burgeoning health burden in the United States. Previous efforts associated with industry-led responsible drinking campaigns to decrease alcohol-attributable harm have not been effective. Proven state- and community-wide measures must be introduced to reduce population harms. A strong, coordinated federal, state, and local effort is needed to counteract long-standing industry opposition to evidence-based policies (see the box on this page). AJPH

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ACKNOWLEDGMENTS

The authors would like to thank Linda Bosma, Thomas Babor, Robin Room, Thomas Greenfield, and Norman Giesbrecht for terrific feedback on an earlier version.

CONFLICTS OF INTEREST

The authors have no conflicts of interest to disclose.

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