EVIDENCE-BASED RESOURCE GUIDE SERIES

Implementing Community-Level Policies to Prevent Alcohol Misuse

FOOI & LIQUOR

CHECKS CASHED

ATA



CHAPTER



Issue Brief

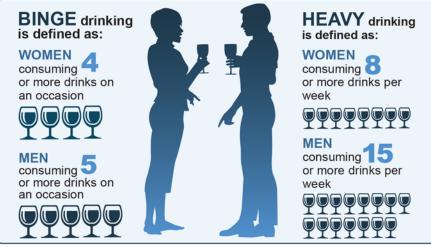
In the United States, <u>alcohol misuse</u> is responsible for approximately 140,000 deaths per year; nearly two-thirds (89,697) are among adults aged 20 to 64,¹⁻² and 4,000 are among those under 21.² Prevention of alcohol misuse is critical for reducing potential harms to individuals who consume alcohol and those around them, as well as to communities that experience alcohol-related violence and crime. Prevention efforts that focus on reducing alcohol misuse and related adverse outcomes are broader than prevention efforts or the provision of treatment for <u>alcohol use disorder (AUD)</u>. Preventing alcohol misuse can reduce the risk of individuals developing AUD.

This guide focuses on alcohol misuse, given that it affects many people.³ Most alcohol-related harms occur among people who drink relatively low or moderate levels, simply because they are more numerous in the population,⁴⁻⁵ even though people who drink higher levels of alcohol have a higher individual risk of experiencing alcohol-related harms. This concept is often referred to as the "prevention paradox," and it supports implementing interventions affecting all people who drink—not just those who consume high amounts of alcohol.

Terminology

- Alcohol misuse, also referred to as excessive alcohol use, is defined as <u>binge drinking</u>, <u>heavy drinking</u>, driving under the influence of alcohol, any underage drinking, or any alcohol consumption by pregnant people. Other commonly used terms are "risky drinking," "problem drinking," or "excessive drinking." This guide will use the term "alcohol misuse."
- **Community** can be understood in multiple ways, including place-based communities (e.g., neighborhoods, cities, rural areas) or groups of identity (e.g., racial/ethnic groups, sexual and gender minorities, those in recovery from alcohol or <u>substance use</u>).
- Sex/Gender: Where possible, this guide uses the specific language used in the original data sources it references; for example, sex assigned at birth (male/female) or gender identity (man/woman/non-binary). Non-binary responses are included when available in the data sources, though such responses are often missing. Individuals whose gender identity corresponds to their sex assigned at birth are referred to as cisgender, and individuals whose gender identity differs from their sex assigned at birth are referred to as transgender.

Definitions of Binge and Heavy Drinking



The amount of alcohol consumed to be considered binge and heavy drinking differs for men and women because they metabolize alcohol differently. Factors like body fat and water content, time since last eating food, rate of ingestion, weight, size, and tolerance all influence how an individual metabolizes alcohol. These amounts may vary slightly depending on biological sex and gender identity. For example, biological females tend to be, on average, smaller and lower weight than biological males and, therefore, may metabolize alcohol differently.

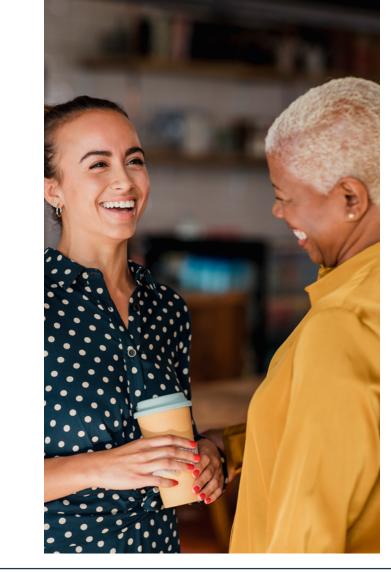
Source: Substance Abuse and Mental Health Services Administration (SAMHSA). (2018). Alcohol use facts and resources. https://www.samhsa.gov/sites/default/files/alcohol_use_facts_and_resources_fact_sheet_2018_data.pdf

What Is Alcohol Misuse and Alcohol Use Disorder?

Alcohol misuse is a pattern of drinking resulting in harm to one's own or others' health and safety, one's interpersonal relationships, or one's ability to function at work, school, or home. It includes binge and heavy drinking, as well as underage drinking, driving under the influence (DUI, also called drunk driving or driving while intoxicated, DWI), and drinking by pregnant people.

There is no universally agreed-upon safe level of alcohol use. The United States Dietary Guidelines for Americans recommend that men limit intake to two drinks in a day and women to one drink or less.⁶ These amounts were established based on how men and women metabolize alcohol. There are currently no established guidelines that include number of drinks for individuals whose gender identities do not match their sex assigned at birth.⁷ The rate at which alcohol is metabolized impacts an individual's blood-alcohol concentration (BAC), which measures the percent of alcohol in a person's bloodstream. Physical and mental impairment from alcohol use is assessed by BAC (see graphic).

Alcohol use disorder (AUD) is a chronic medical condition that meets criteria in the Diagnostic and Statistical Manual of Mental Disorders⁸ and is characterized by the impaired ability to stop or control alcohol use, to relieve or avoid withdrawal symptoms, despite adverse social, occupational, or health consequences.



Blood	Blood Alcohol Concentration (BAC)		
BLOOD			
	TYPICAL EFFECTS		
0.02%	 Some loss of judgement State of relaxation Altered mood When driving: Decline in visual function and increased distraction 		
0.05%	 Exaggerated behavior Impaired judgement Lowered level of alertness Reduced coordination When driving: Poor response time and reduced ability to track objects 		
0.08%	 Poor muscle coordination Impaired judgement, self-control, reasoning, and memory Poor concentration Reduced capability to process information When driving: Impaired perception and speed control 		
0.10%	 Deteriorated reaction time and control Slurred speech, poor coordination, and slowed thinking When driving: Reduced ability to maintain lane position 		
0.15%	 Major loss of balance Far less muscle control Vomiting When driving: Substantial impairment in vehicle control, attention, and visual and auditory processing 		

Note: These effects are generalized and may vary depending on individual factors. The federal limit to legally drive in the United States is a BAC of 0.08%, except Utah where it is 0.05%. Many states have set lower BAC limits to legally drive for individuals under the age of 21, known as zero tolerance laws. **Source:** Centers for Disease Control and Prevention (CDC). (n.d.). *Blood alcohol*

concentration. https://www.cdc.gov/motorvehiclesafety/pdf/bac-a.pdf

Alcohol Products

All alcohol products contain ethyl alcohol, or ethanol, that is produced through fermentation of different materials like grains (beer) and grapes (wine). The most common alcohol products are beer, wine, and liquor/spirits. The percentage of pure alcohol in these products is measured using alcohol by volume (ABV). Beer and wine are



Variation in ABV is reflected in standard drinks for the same size. For example, a 12 oz beer that is 8% ABV is 1.6 standard drinks and a 5 oz glass of wine that is 15% ABV is 1.25 standard drinks.

typically thought of as the safest alcoholic beverages because of their relatively low ABV, while liquor/spirits are thought of as more potent due to their higher ABV. However, no one alcoholic beverage is safer to drink than any other; the amount of alcohol *consumed* is what affects people the most, across all beverage types.⁹

Over the years, alcohol products have evolved beyond these standard types. The alcohol industry has introduced several new alcohol products since the 1990s that have raised public health concerns about higher levels of alcohol consumption, more alcohol consumed by youth, and greater physical and social harms. The most recent products, potentially associated with a high risk of alcohol-related harm, include:

- *Alcohol mixed with energy drinks*, in ready-todrink cans or mixed at bars or restaurants (note: these are banned in some states).¹⁰
- *Flavored alcoholic beverages*, also called "alcopops," which are sweetened beverages designed to appeal to youth or consumers who are less familiar with the taste of more traditional alcoholic beverages.¹¹
- *Ready-to-drink cocktails*, which are pre-mixed cocktails available wherever alcohol is sold to-go.
- *"Hard" drinks*, such as hard kombucha or hard seltzers and sodas that add flavor and alcohol to previously alcohol-free beverages; these drinks have approximately the same alcoholic beverage content as beer.
- *High alcohol content beer*, such as those above 7 percent ABV and some even above 67 percent ABV.

- *Powdered alcohol*, available in capsule or packet form and containing alcohol that has been absorbed by a sugar derivative; individuals can consume alcohol capsules orally as a pill or dissolve them in water to make an alcoholic beverage.
- *Grain alcohol*, which is high-strength alcohol (e.g., above 100 proof, or 50 percent ABV) that has been restricted or banned in ten states as of 2019.¹²

Demographic Characteristics of People Who Are Impacted by Alcohol Misuse

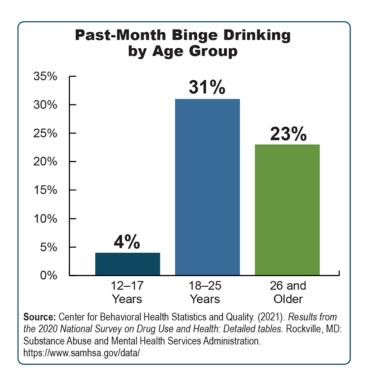
As communities recognize alcohol's role in individual and community harms, it is important to assess who is affected by alcohol misuse and the rates of alcohol misuse among different population groups. Paired with data on the broader context of where and how retailers market and sell alcohol, consumption data can assist communities in determining the best prevention approach to address their specific issues (see <u>Chapter 2</u> for a list of evidence-based policies and <u>Chapter 3</u> for implementation recommendations).

Age

In 2020, almost 70 (69.6) percent of people living in the United States age 21 and older (166.6 million people) reported drinking alcohol in the past year, as did 29.7 percent of underage individuals aged 12 to 20.¹³ Nearly one in four individuals (24.3 percent) age 21 and over reported binge drinking in the past month.¹³ Individuals aged 18 to 25 exhibited the highest rates of past-month binge drinking (31.4 percent), followed by individuals aged 26 and older (22.9 percent) and 12 to 17 (4.1 percent).¹³ Younger people are more likely than older people to drive under the influence of alcohol; of drivers involved in fatal car crashes, 27 percent were aged 25 to 34, with the next largest groups being 21 to 24 (26 percent) and 35 to 44 (22 percent).¹⁴

Underage drinking remains a major concern in the United States, even though purchasing or possessing alcohol is illegal for those under the age of 21 in most circumstances.^a

In fact, in 2016, underage drinking accounted for \$17.5 billion in alcohol sales, and people aged 12 to 20 drank 9 percent of all alcohol consumed that year.¹⁵ Alcohol products, such as flavored alcoholic beverages, are particularly popular among youth, and evidence suggests that these products are specifically marketed to attract youth.¹⁶ The link between youth exposure to marketing and underage drinking is clear: reducing youth exposure to marketing reduces youth alcohol consumption.¹⁶⁻¹⁷ Early initiation of alcohol use sets young people up for greater likelihood of harm later in life.¹⁸⁻²⁰ Reducing youth exposure to alcohol advertising is just one example of a policy intervention that can help delay initiation, and thus reduce alcohol misuse and related harms.



In recent years, alcohol misuse has also been increasing in older adults. One study found that 20 percent of older adults surveyed drank alcohol 4 or more times per week, 27 percent reported having 6 or more drinks on at least 1 occasion in the past year, and 7 percent reported alcohol-

^a Thirty-seven states allow the consumption of alcohol for those under the age of 21 when with a parent, guardian, or spouse, or in private locations, such as a private residence or parent/guardian's home.

related blackouts.²¹ Alcohol misuse in older adults can place these individuals at additional risk because they metabolize alcohol more slowly, are more susceptible to injury, and are more likely to be taking multiple prescription medications that may not be mixed with alcohol.²²

Sex/Gender

Sex assigned at birth and gender identity impact alcohol misuse and associated risks in many ways. The former has a greater effect on impaired functioning, inhibition, and other behavioral impacts, while the latter has a greater effect on responses to marketing and susceptibility to sexual assault.²³ In the past, researchers did not collect data specific to sex assigned at birth and gender identity;^{7, 24} however, these data are becoming more readily available and are improving our understanding of how these factors influence alcohol misuse and differences between majority and minority groups.²⁵⁻²⁷ Given the current understanding of the interactions between sex assigned at birth, gender identity, and alcohol misuse, prevention programming should encompass and address all components of sex and gender.

Sex assigned at birth. In the United States, males have historically reported much higher rates of drinking and alcohol misuse than females. Males in the United States drink three times more alcohol than their female counterparts.²⁸ In 2020, among individuals aged 12 and



Definitions and measures of alcohol misuse have not always considered the complexity of biological characteristics, sex assigned at birth, gender identity, or the interactions among these factors. However, data on gender and sexual identities are becoming more readily available. Research in the areas of understanding and measuring alcohol misuse in transgender populations and how they differ from cisgender populations is ongoing. Data on alcohol misuse for gender minorities (e g , transgender, non-binary) have been inconsistent, but differences have been noted in alcohol misuse among these individuals and cisgender people across several behaviors, indicating that different groups have distinct health risks.

Alcohol Misuse by Gender Identity

Compared to cisgender individuals, individuals who identify as transgender are more likely to use substances, including alcohol.

Gender non-conforming individuals have higher odds of binge and heavy drinking than do gender-conforming individuals.

Transgender females have higher odds of binge and heavy drinking compared to cisgender females.

Women and gender minority college students drink less than cisgender, heterosexual college men but experience more alcohol-related consequences per drink.

Individuals who identify as transgender may be more influenced by norms associated with gender identity than those associated with their birth-assigned sex.

Stress related to gender identity is associated with risky drinking behavior.

Sources:

Azagba, S., Latham, K., & Shan, L. (2019). Cigarette, smokeless tobacco, and alcohol use among transgender adults in the United States. International Journal of Drug Policy, 73, 163-169. https://doi.org/10.1016/j.drugpo.2019.07.024.

Barger, B. T., Obedin-Maliver, J., Capriotti, M. R., Lunn, M. R., & Flentje, A. (2021). Characterization of substance use among underrepresented sexual and gender minority participants in The Population Research in Identity and Disparities for Equality (PRIDE) Study. Substance Abuse, 42(1), 104-115. https://doi.org/10.1080/08897077.2019.1702610 Cotaina, M., Peraire, M., Boscá, M., Echeverria, I., Benito, A., & Haro, G. (2022). Substance use in the transgender population: A meta-analysis. Brain Sciences, 12(3), 366. https://doi.org/10.3390/brainsci12030366

Hughto, J.M.W., Quinn, E.K., Dunbar, M.S., Rose, A.J., Shireman, T.I., & Jasuja, G.K. (2021). Prevalence and co-occurrence of alcohol, nicotine, and other substance use disorder diagnoses among US transgender and cisgender adults. JAMA, 4(2), e2036512. https://doi.org/10.1001/jamanetworkopen.2020.36512

Kidd, J. D., Levin, F. R., Dolezal, C., Hughes, T. L., & Bockting, W. O. (2019). Understanding predictors of improvement in risky drinking in a U.S. multi-site, longitudinal cohort study of transgender individuals: Implications for culturally-tailored prevention and treatment efforts. *Addictive Behaviors*, *96*, 68-75. https://doi.org/10.1016/j.addbeh.2019.04.017
 Schipani-McLaughlin, A.M., Nielsen, K.E., Mosley, E.A., Leone, R.M., Oesterle, D.W., Orchowski, L.M., Davis, K.C., & Gilmore, A.K. (2022). Alcohol use and alcohol-related consequences based on gender and sexual orientation among college students. *American Journal of Addiction*, *31*(3), 189-199. https://doi.org/10.1111/ajad.13283
 Smalley, K. B., Warren, J. C., & Barefoot, K. N. (2016). Differences in health risk behaviors across understudied LGBT subgroups. *Health Psychology*, *35*(2),103-114. https://doi.org/10.1037/hea0000231

Williams, E. C., Frost, M. C., Rubinsky, A. D., Glass, J. E., Wheat, C. L., Edmonds, A. T., Chen, J. A., Matson, T. E., Fletcher, O. V., Lehavot, K., & Blosnich, J. R. (2021). Patterns of alcohol use among transgender patients receiving care at the Veterans Health Administration: Overall and relative to nontransgender patients. *Journal of Studies on Alcohol and Drugs*, 82(1), 132-141. https://doi.org/10.15288/jsad.2021.82.132

older, the prevalence of binge drinking in the past month was higher among males than females (24.9 percent versus 19.7 percent, respectively).¹³ An estimated half of all violent crimes involve alcohol use, including sexual assaults; nearly all perpetrators are male, while nearly all victims are female.²⁹⁻³⁰ Males are four times as likely to drive under the influence compared to females.³¹

Female misuse of alcohol is, however, increasing.³² In 2020, the prevalence of binge drinking in the past month among males and females aged 18 to 25 was nearly equal (31.3 percent and 31.4 percent, respectively).¹³ Moreover, 2019 data on high school students, analyzed separately for male and females showed that females report current binge drinking at a higher rate than males in the same grade.³³ This pattern suggests that young females may be at particularly high risk of engaging in alcohol misuse, compared to male peers and older females. These findings are concerning, given that, compared to males, females are at higher risk for medical problems associated with alcohol misuse, including liver, brain, and heart damage;^{34.35} and alcohol use is also a major risk factor for breast cancer.³⁶

Gender identity. The impact of gender on alcohol misuse is influenced by gender roles and norms, relations, identity, and other components of gender in addition to sex assigned at birth and the intersection of these different factors.²³ Although gender-specific risks associated with drinking have been historically researched based on sex assigned at birth, gender identity may influence these risks. For example, alcohol products and marketing are often geared towards stereotypical preferences of women. This includes the commercialization of lower calorie beer, sparkling alcoholic beverage products, and wines named and branded for a moms' or girls' night out. Alcohol marketing also capitalizes on gendered messaging and stereotypes, such as using significant pink branding, focusing on all-women friendships, talking about the gender pay gap, and attaching to International Women's Day.37

These marketing tactics may influence alcohol consumption among women, compounding risks because, in addition to being subjected to gender-specific marketing practices, people in gender minority groups are more likely than majority groups to consume alcohol.²³

Sexual Orientation

Sexual minorities tend to have a higher rate of alcohol misuse.^{27, 38} According to the 2020 National Survey on Drug Use and Health, 32.6 percent of people identifying as lesbian, gay, or bisexual (LGB) aged 18 and older reported binge drinking in the past month.¹³ This rate was higher than the national binge drinking prevalence rate of 24.2 percent:¹³

- Women aged 18 and over who identify as sexual minorities reported a higher percentage of past month binge drinking (34.3 percent) than did women overall (31.3 percent).
- Men aged 18 and over who identify as sexual minorities also reported a higher percentage of past month binge drinking (29.8 percent), compared to men overall (27.3 percent).

Similarly, the 2019 Youth Risk Behavior Survey found that LGB youth also had a significantly higher rate (33.9 percent) of current alcohol use than their heterosexual peers (28.8 percent).³⁹

Federal surveys that have begun to ask sexual orientation questions in recent years find that substance misuse and substance use disorders, in general, are more prevalent among individuals who identify as lesbian, gay, bisexual, transgender, queer/questioning, and/or intersex (LGBTQI+) as compared to those who identify as heterosexual and/or cisgender.⁴⁰⁻⁴¹ Other research has produced similar findings, and indicates a nuanced intersection between sexual orientation and gender identity that influences social and biological risk factors for substance misuse. For example, one study found that sexual minorities assigned female sex at birth were more likely to report substance misuse, compared to the general population, in which more people assigned male sex at birth tend to report substance misuse.⁴² Another study found that the intersection of gender and sexual orientation and how it influences alcohol misuse, specifically, may vary by identity, as youth who were questioning both their gender and sexual orientation had greater odds of initiating alcohol use before age 15.27

While biological traits that influence alcohol misuse appear more frequently in some populations than others, genetics account for half of AUDs,⁴³ and social/environmental influences account for the rest.

There are a range of social issues, such as stigma, discrimination, and other challenges not experienced by people who identify as heterosexual, that may put LGBTQI+ individuals at greater risk for behavioral health issues, including alcohol misuse.⁴⁰⁻⁴¹ Sponsored events in bars, product labeling that relies on rainbows and pride themes, advertisements in gay press publications, strategic advertising campaigns, and support of pride events increases the exposure of alcohol to LGBTQI+ populations.⁴⁴⁻⁴⁵ These marketing practices entrench alcohol further in LGBTQI+ communities, potentially increasing the risk of alcohol misuse and alcohol-related harms in already disenfranchised and susceptible groups.

Race/Ethnicity

Rates of alcohol misuse differ among racial and/or ethnic groups in the United States.^{46,b} Many of the observed differences in alcohol misuse by different races or ethnicities are rooted in social-structural inequities; for example, although men who identified as White were most likely to report driving under the influence of alcohol (followed by men who identified as American Indian/Alaska Native (AI/AN) and mixed race),⁴⁸ men who identified as Black/African American and Latino were more likely to be stopped, searched, and convicted for doing so.⁴⁹

Among individuals aged 12 and older, past 30-day binge drinking rates are reported highest among those who identify as White (23.1 percent) and Hispanic (23.7 percent), closely followed by those who identify as Black/ African American (20.8 percent) and as two or more races (20.6 percent). Lowest past 30-day binge drinking rates are reported among people who identify as Asian Americans (12.1 percent). Reliable estimates for alcohol misuse among people who identify as AI/AN and Native Hawaiians/Pacific Islanders are not currently available.¹³

When compared to White populations, AI/AN communities have lower rates of alcohol use overall, but higher rates of binge and heavy drinking among people who currently drink alcohol.52 AI/AN populations also experience greater harms from alcohol misuse, as well as numerous health disparities that are associated with current and historical legacies of systemic racism and stigmatization.⁵³⁻⁵⁴ American Indian vouth are more likely to report drinking, heavy drinking, and initiation of alcohol use at a younger age than White youth and are more likely to access alcohol from social sources like parties, siblings, non-parent adults, bars, and retail stores.⁵⁰ Other research suggests that American Indian youth access alcohol at higher rates than all other demographic groups except White youth.⁵⁰ Additionally, researchers have documented disproportionate marketing of alcohol to American Indians for decades.⁵⁵ According to a recent analysis of trends in alcohol-induced deaths in the United States during 2000-2016, both the death rate and its average annual rate of increase were highest amongst AI/AN individuals.⁵⁶ Furthermore, a commentary on the analysis cited that these extremely high rates are likely still undercounted due to racial misclassification on death certificates, making these rates even more concerning.57

Many Black, Indigenous, and People of Color (BIPOC) communities experience disproportionately greater exposure to alcohol than do Whites, largely through high densities of alcohol outlets (i.e., the number of bars, restaurants, and stores selling alcohol in a certain geographic area).⁵⁰ For example, low-income, predominantly Black neighborhoods in Baltimore had up to eight times as many liquor stores compared to communities with different socioeconomic and racial demographics.⁵⁰⁻⁵¹

BIPOC communities also face high levels of exposure to alcohol marketing. One study found that there are five times more alcohol advertisements in Latino neighborhoods than in White neighborhoods;⁵⁸ similar patterns exist for billboard advertising in predominantly non-White communities.⁵⁹ Additionally, low-cost, high-alcoholic beverages, such as malt liquor, are more readily available and heavily marketed in communities of color than in predominantly White communities.⁶⁰⁻⁶¹

^b The United States Census Bureau defines race and ethnicity as a person's self-identification with one or more social groups based on ancestral region of origin.⁴⁷ Information on race is collected to make funding decisions and understanding disparities in housing, education, employment, health care, and other sectors.⁴⁷ While there are no biologically distinct "races," there are biological traits that are more common in certain races than others.

Despite these environmental risk factors, non-White populations typically have lower drinking rates than Whites. However, they still experience disproportionate harm from alcohol consumption, particularly those with the lowest income levels.⁶² The discrepancy between lower rates of drinking and higher rates of harm may be due to the combination of additional stress, stigma, and discrimination that non-White populations face, unresolved individual and community-level trauma, and exposure to drinking environments and settings associated with a high risk of harm.⁶³⁻⁶⁴

Socioeconomic Status

In general, people with higher socioeconomic status report drinking more frequently and more heavily than those with lower SES; however, people with lower socioeconomic status are, on average, more negatively affected by alcohol-related harms.⁶⁵ One study found that people who belonged to a household with a low income (below \$20,000) were more likely to either abstain from alcohol or drink heavily; they were less likely to report light or moderate drinking.⁶⁶

Another study showed binge-drinking prevalence was highest among those with the highest income (>\$75,000);

the relationship between high income and high binge drinking rates have been duplicated in numerous studies.⁶⁷⁻⁶⁸ When looking at education level, data show that higher education is associated with higher odds of a person drinking at some point in their life.⁶⁹ More recently, researchers found that, within the same urban area, people living in higher income neighborhoods drank more alcohol and reported more alcohol-related problems, compared to people in lower income neighborhoods.⁷⁰

Harms Associated with Alcohol Misuse

There are more than 200 conditions associated with alcohol misuse, many leading to chronic disease and death;⁷¹⁻⁷² it is a leading preventable cause of death in the United States.⁷³ Harms related to alcohol misuse also have negative impacts on non-drinking individuals, family members, communities, and society.⁷⁴ Negative consequences of alcohol misuse can uniquely affect different sectors of society.⁷⁵ For example, alcohol misuse is associated with a host of long-term physical harms, which influence productivity in the workplace. Alcohol misuse may also jeopardize public safety.

Individual Morbidity and Mortality	Family/Relationships	Communities/ Society
 Unintentional injuries such as motor vehicle crashes, falls, drownings, and burns Alcohol poisoning Risky sexual behaviors Effects on pregnant people and their babies, including miscarriage and stillbirth Cardiac issues, such as high blood pressure, heart disease, and stroke Liver disease, gastritis, pancreatitis, and digestive issues Several different types of cancer, including mouth, throat, larynx, esophagus, liver, breast, colon, pancreatic, and rectum Neurological issues, including learning and memory problems, poor school performance, difficulty walking (ataxia), blindness, encephalopathy, and dementia A weakened immune system Weight and blood sugar level changes Behavioral health conditions, such as depression, anxiety, concurrent substance misuse, AUD, and suicide Fertility issues affecting both males and females 	 <i>Partners</i> Intentional injuries and violence, like sexual assault, homicide, domestic/intimate partner violence Decreased quality of life Physical and mental health problems Divorce and/or separation <i>Children</i> Poor school performance Negative effects on infants, children, and adults whose mothers drank during pregnancy, like pre-term birth, low birth weight, and fetal alcohol spectrum disorders Abuse and neglect Riding with driver under the influence Adverse childhood experiences 	 Workplace Unemployment Decreased productivity and career advancement and/ or opportunities Workplace problems (e.g., harassment) Public Safety Motor vehicle crashes Violent crime (e.g., assault, homicide) Disruptive behavior (e.g., threats, disorderly conduct) Incarceration and penal costs

Impacts of Alcohol Misuse on Individuals, Family/Relationships, and Communities/ Society^{9, 71, 76-78}

People experiencing harm due to others' drinking increases the broader community impact of alcohol misuse. One study found that one in five adults reported experiencing at least one harm due to others' drinking in the past year.⁷⁹ These secondhand effects of alcohol use include harassment or threats, financial harms, physical aggression, driving-related harms, and more.

The negative consequences of alcohol misuse create not only a social burden, but also a financial burden to society. In 2010, the most recent data available, the economic costs related to excessive alcohol use in the United States were estimated at \$249 billion. This resulted from lost workplace productivity, healthcare costs, criminal justice expenses, and costs associated with alcohol-related motor vehicle crashes and other property damage.⁸⁰ Costs to communities include those for law enforcement and social, healthcare, ambulatory, and emergency services to respond to and treat alcohol-related problems, including crashes, violent crimes, public intoxication, and other public nuisances. These costs can be substantial burdens for communities.

Community-Level Risk and Protective Factors

Many community-level factors may influence an individual's drinking behavior and contribute to alcohol misuse.⁸¹⁻⁸² Risk factors for alcohol misuse are characteristics associated with a *greater* likelihood of negative outcomes related to drinking, while protective factors are those associated with a *lower* likelihood of negative outcomes or reduced impact of risk factors.⁸³

Many risk factors for alcohol misuse are tied to an individual's or family's behavior or circumstances. However, one's community—and the corresponding structural, societal, and cultural factors within it—can also create both risk and protective factors.

Key risks at the community level relate to alcohol availability and cost. When alcohol is low cost, widely available, and unrestricted, and when its use is normalized, individuals who are at risk for alcohol misuse have greater opportunities to drink at high or harmful levels.⁸⁴⁻⁸⁸ More specifically, these community-level risk factors include:

- Beliefs and practices that normalize underage drinking.
- Alcohol use at younger ages (e.g., under 21), abundant alcohol advertising, and laws that do

not prohibit alcohol misuse, such as permitting driving while under the influence if BAC is legally low enough.⁸⁹

- Alcohol that is easily and cheaply available, as is the case with low alcohol taxes and prices, weak restrictions and regulations on alcohol use in public places and at community events, weak retail restrictions and regulations (e.g., density, hours, and days of sale), and minimal point of sale restrictions (e.g., displaying alcohol at or near the checkout).
- Socioeconomic factors, like low neighborhood income.

The opposite of each of these risk factors can be considered protective factors and are important considerations for building and supporting healthy, resilient communities. For example, raising the price of alcohol through taxes or banning price promotions is a protective factor, as is limiting the number of alcohol outlets in a community.^{86, 90}

Individual- and Family-Level Risk and Protective Factors

While community-level risk factors are critical to understanding the most appropriate policy interventions to reduce alcohol misuse, it is helpful to understand that many individual- and family-level factors may also influence an individual's drinking behavior. These



individual-level factors should not be considered in isolation, but in the broader context of community-level factors.^{82-83, 91}

Broader <u>social determinants of health</u> should be considered when assessing risk and protective factors across individuals, families, and the communities in which they live. Racial/ethnic, sexual, and gender minorities in the United States face a range of hardships that may directly affect their health, including income disparities, unemployment, residential segregation, substandard housing, discrimination, and less access to health care as compared to White, cisgender, or heterosexual populations.⁹² The cumulative effects of these factors over a period of time may lead to high chronic stress, strain on the body, and negative coping skills, which are associated with poor health and alcohol misuse.⁹³

All aspects of an individual's identity, including their age, race/ethnicity, genetic makeup, sexual orientation, gender, and SES, contribute to a person's relative advantage and disadvantage across life experiences.⁹⁴ These aspects cannot be considered in isolation when seeking to prevent or reduce alcohol misuse or related harms. For this reason, and as described in <u>Chapter 2</u>, focusing prevention efforts at the community level has the greatest opportunity to affect the broader social factors that influence drinking habits and associated harms.⁸⁶

Importance of Universal Prevention Efforts

Prevention efforts that focus on all people in a population (known as "<u>universal interventions</u>" or "universal prevention") have shown greater impact on substance misuse and related harms, compared to interventions that focus solely on individual-level changes in alcohol misuse.⁹⁵⁻⁹⁶ Universal prevention has also been shown to be cost-effective while reducing the costs associated with alcohol misuse and related harms within communities. Universal interventions work to improve the lives of all individuals within a community, including those experiencing greater <u>health inequities</u>.

Finally, policies focused on alcohol misuse prevention (e.g., raising alcohol taxes, reducing the density of alcohol outlets, reducing hours of sale), through their secondary effects—such as reducing associated crime and violence—can help promote and maintain healthier, more resilient communities. <u>Chapter 2</u> contains more details on this prevention approach.

Risk and Protective Factors Associated with Alcohol Misuse			
Individual-level Risk Factors Include:	Individual-level Protective Factors Include:	Family-level Risk Factors Include:	Family-level Protective Factors Include:
 Early and persistent behavior problems (emotional distress, aggressiveness, delinquency) Failure in school Peers who use alcohol and other drugs Attitudes favorable to alcohol and other drug use Low perceived risk of alcohol use Lack of employment History of trauma Genetics 	 Success in school performance; strong bonds with institutions, such as school and religious organizations High level of self-regulation Secure attachment Mastery of communication and language skills Ability to make friends and get along with others 	 Parental alcohol use Family history of alcohol dependence Family conflict (marital discord) Low family bonding (lack of parent-child closeness) Inconsistent parental discipline 	 Strong and positive family bonds Parental monitoring of activities of children and their peers Clear rules of conduct consistently enforced within the family Involvement of parents in the lives of their children

What Research Tells Us

This guide identifies policies implemented to prevent alcohol misuse by changing or influencing community conditions, systems, and behaviors. These policies should not be considered in isolation as they are most effective when coordinated to complement and reinforce one another to reduce the influence of alcohol in the overall environment.⁹⁷

The policies included in this guide were selected after a comprehensive literature review and in collaboration with subject matter experts. Policies eligible for inclusion met the following criteria:

- Are clearly defined and replicable
- Have been evaluated through independent study
- Address the target outcome of reduction or prevention of alcohol misuse
- Are currently in use
- Have accessible implementation supports, such as implementation guides

A substantial body of evidence supports the policies included in this chapter; many have been researched for decades—in different settings and within different communities. However, it is important to note that the alcohol policy and regulatory landscape is continually changing, and interventions must adapt. Policies must keep pace with a dynamic industry that includes, but is not limited to, the following:



- Release of high-alcohol content products (such as high-alcohol supersized alcopops, hard seltzers, and high-alcohol craft beers)
- Increase in the number of establishments that sell alcohol, such as movie theaters and coffee shops, thus increasing availability
- Innovative marketing of alcoholic beverages (e.g., increased use of social media; paid <u>social</u> <u>media influencers</u> who discuss and market the product to a large network of followers; new digital marketing techniques, such as engaging with social media comments and connecting events and user locations directly to products and purchase opportunities)
- Different ways of selling and providing alcohol (e.g., curbside pick-up and carry out, providing free alcohol, online alcohol sales, home delivery)

As prevention practitioners^a look for options to address emerging changes in their alcohol environments, they should consider policies that fit under the broader theory of creating safer communities through reducing **alcohol availability** via regulation and policy. Policies grounded in this approach have shown the greatest effectiveness in reducing alcohol consumption and related harms across the general population.⁹⁶ Strategies to affect availability can be conceptualized using the following framework:⁹⁸

^a For simplicity, the term "practitioner" is used throughout this guide to refer to individuals providing health care, including behavioral health services. The authors recognize that some settings may use other terms, such as clinician or provider.

Alcohol Policy: Key Resources

- <u>The Community Guide</u>
- <u>Facing Addiction in America: The Surgeon</u> <u>General's Report on Alcohol, Drugs, and</u> <u>Health</u>
- Surgeon General's Call to Action to Prevent and Reduce Underage Drinking
- <u>National Academies of Science and</u> <u>Engineering: Reducing Underage Drinking: A</u> <u>Collective Responsibility</u>
- <u>CollegeAIM</u>
- STOP Act Report to Congress
- <u>Getting to Zero Alcohol-Impaired Driving</u> <u>Fatalities</u>
 - **Physical availability**, including restricting how, when, where, and to whom retailers can sell alcohol or where alcohol is consumed (such as parks, home parties, or beaches). Reducing the ease of accessing alcohol requires consumers to then devote more effort and intention to obtaining and consuming the product, which in turn reduces consumption and harm.
 - Financial availability, including mechanisms to raise the price of drinking, such as taxes, <u>minimum unit price</u> policies (setting a minimum price per <u>standard drink</u>, defined as approximately 14 grams of pure alcohol, found in 12 ounces of regular beer—usually about 5 percent alcohol, 5 ounces of winetypically about 12 percent alcohol, and 1.5

ounces of distilled spirits—about 40 percent alcohol⁹⁹), and bans on price discounting such as "happy hours." By increasing the price of alcohol, demand decreases, reducing alcohol consumption and harm.

- Social availability, including assessing how marketing can be used to create a powerful normative climate that is positive towards drinking, impeding prevention efforts. By changing the perceived norms and social acceptability of alcohol through reducing alcohol marketing and discouraging access in peer and family networks, individuals (particularly youth) are less likely to begin drinking and more likely to decrease alcohol consumption.¹⁰⁰
- **Psychological availability**, including understanding individuals' perceptions of how accessible alcohol is to them and their lifestyle often influenced by how they respond to alcohol marketing. By limiting or reducing exposure to alcohol marketing, people (and especially youth) are less likely to consume alcohol.¹⁶⁻¹⁷

The policies discussed here are grounded in the concept of availability, which has a substantial evidence base.^{81,} ¹⁰¹ Where possible, this chapter also highlights if and how these policies have been implemented and studied in diverse communities (such as predominantly Black or Brown communities, rural communities, or with LGBTQI+ populations). It is important to note that not all of these policies have been tested or implemented in various communities, and all policies should be viewed through the lens of health equity.



Implementing Community-Level Policies to Prevent Alcohol Misuse What Research Tells Us

This chapter organizes the policies into three categories.

Policies with the *Strongest Evidence*: Policies that are a high priority for implementation, based on level of evidence and population impact

Regulating alcohol outlet density

Minimum legal purchase age

Limiting days or hours of sales

Increasing alcohol taxes

Minimum pricing

Limiting alcohol advertising and marketing (specific to underage drinking)

Dram shop (commercial host) liability laws

Policies with *Moderate Evidence*: Policies that have mixed research evidence and should be pursued only together with the high priority policies

Restricting social availability of alcohol (e.g., social host ordinances)

Alcohol-impaired driving countermeasures

Limiting price promotions

Policies with Limited to No Evidence: Policies that are only effective when done in conjunction with high priority policies

Responsible beverage service

Retail environment limitations (e.g., limiting floor space for alcohol in retail establishments; banning products with a high risk of alcohol-related harm)

Restrictions on public places where alcohol is sold/ consumed

Policies With the Strongest Evidence

The policies included in this section have a strong evidence base and have shown reductions in alcohol misuse and related harms. Importantly, research shows they affect populations broadly, rather than focus on small groups with a high risk of alcohol-related harm. These policies are endorsed or recommended by the World Health Organization; the Community Preventive Services Task Force; the Surgeon General's Report on Alcohol, Drugs, and Health; the National Academy of Science and Engineering's Getting to Zero report; and others. When considering policies for implementation, communities should prioritize this set of policies, as they will have the greatest impact on alcohol misuse.

Physical Availability

Alcohol consumption and related harms decrease when communities reduce where, when, and how alcohol can be sold and consumed.^{87-88, 102-103} Leading interventions to decrease alcohol availability include regulating alcohol outlet density, maintaining the legal purchase age of 21, and limiting the hours and days that establishments can sell alcohol.

Types of Alcohol Outlets

On-premises: Alcohol served in food and entertainment establishments, such as bars, restaurants, and other locations, for consumption on-site.

Off-premises: Alcohol purchased from liquor stores, grocery stores, convenience stores, or other retail establishments for consumption off-site.

Some establishments may allow on-premises consumption and off-premises purchases, like breweries and wineries.

Regulating Alcohol Outlet Density

Jurisdictions can regulate the alcohol retail environment, including outlets that sell alcohol for consumption <u>on-</u><u>premises</u> and <u>off-premises</u>, by restricting the number and/or locations of alcohol outlets in a neighborhood or community. These policies limit the sale of alcohol through:

- Licensing restrictions that generally regulate the type or number of outlets per population (e.g., per 1,000 residents) or geographic area
- Zoning laws that apply land use provisions to determine the permissible locations for alcohol outlets^{86, 104}

Licensing authority depends on the regulatory structure of the state and the degree to which it permits or preempts local policy on how, when, and where retailers can sell alcohol. States generally regulate licensing, although some localities may share licensing powers with the state or have local licensing power over certain kinds of alcohol outlets (e.g., on- or off-premises) or outlets selling certain alcoholic beverages.¹⁰⁵⁻¹⁰⁶ Zoning authority gives local jurisdictions the ability to use planning and land use procedures to determine the placement and practices of businesses operating within their borders. <u>Nuisance ordinances</u> are often enacted in conjunction with zoning laws and licensing restrictions and allow local jurisdictions to regulate alcohol retailers who are consistently cited for poor business practices, such as lack of exterior lighting, sales to minors, graffiti, extensive advertising, or loitering or crime at their establishment. Governments may want to consider the above three regulatory policies as a complementary trio. Regardless of jurisdiction over licensing, town, city, and county governments most often employ zoning and nuisance powers to regulate access to alcohol. For example, pairing a zoning ordinance with a licensing policy that limits the number of retailers can help avoid clustering numerous outlets within one small area, which has been associated with youth alcohol consumption and increased crime.¹⁰⁷⁻¹⁰⁹ It also helps ensure that alcohol establishments are not disproportionately located in low-income areas.¹¹⁰

Policy: Regulating Alcohol Outlet Density		
Description	Examples of Outcomes	
Limiting/restricting	Reduction in alcohol consumption ^{86, 111}	
where alcohol retailers may be located through licensing or zoning	 Limiting alcohol outlets to 70 per square mile in New York City decreased binge drinking prevalence by 0.7 percent.¹¹² 	
	 Across six urban cities, increases in the density of alcohol outlets per square mile was associated with a 7- to 11-percent increase in total weekly alcohol use.¹¹³ 	
	Reduction in alcohol-related harms , including motor-vehicle crashes, injuries, violence, and medical conditions ^{86, 114}	
	 Removing alcohol outlets in Baltimore's residential areas was associated with 22 fewer homicides each year.¹¹⁵ 	
	 Intentional and unintentional injuries are significantly greater in areas with a higher density of off-premises alcohol outlets.¹¹⁴ 	



Implementing Community-Level Policies to Prevent Alcohol Misuse What Research Tells Us

Health Equity Considerations of the Policy

High alcohol outlet density in the United States is associated with communities that have higher levels of poverty and greater proportions of Black and Hispanic/ Latino populations,¹¹⁶⁻¹¹⁸ particularly for off-premises outlets.¹¹⁹ Studies have shown that communities of color tend to have the highest alcohol outlet density and associated problems, yet the lowest consumption levels, suggesting that systemic racism could partially explain these patterns.¹²⁰ Multiple studies have found that a history of discriminatory lending practices ("redlining"), which resulted in more alcohol retailers located in neighborhoods with higher population density, helps explain the overconcentration of alcohol outlets in these areas.^{110, 120-121} A reduction of alcohol outlet density in communities of color could help reduce alcohol-related inequities, such as violence and other crimes.

Minimum Legal Purchase Age

The minimum legal purchase age law (often referred to as the minimum legal drinking age or MLDA) specifies the age when a person can legally purchase an alcoholic beverage. The federal National Minimum Drinking Age Act of 1984 created incentives so that, by 1988, every state had adopted a minimum purchase age of 21.

Despite subsequent efforts by some advocates to reduce the drinking age to 18, the <u>Community Preventive</u> <u>Services Task Force</u>, <u>Mothers Against Drunk Driving</u>, the <u>National Highway Traffic Safety Administration</u>,

Real World Implementation Examples

- The local city council of Atlanta, Georgia enacted a series of policies to reduce alcohol availability in 2003. These policies led to a decrease in alcohol density in the Buckhead neighborhood, which is 75 percent White and relatively young, with half the population aged 15 to 34 and the other half older than 35. A 3-percent reduction in outlet density was associated with a 28-percent reduction in violent crime—twice the decrease that occurred in comparable neighborhoods where outlet density had not changed.¹⁰⁸
- In 1997, New Orleans, Louisiana implemented a series of policies, including increased licensing fees, enforcement, and expanding licensing board powers, that led to alcohol outlet density reductions, resulting in a significant decrease in violent assaults.¹²² In addition, literature suggests that reducing the number of alcohol retailers reduces injury and crime.⁸⁶

and other organizations all recommend maintaining the age of 21. The <u>Community Guide</u>, a collection of evidence-based recommendations and findings from the Community Preventive Services Task Force, found that well-enforced minimum legal purchase age policies reduced youth access to alcohol.¹²³

Policy: Maintaining the Minimum Legal Purchase Age of 21			
Description	Examples of Outcomes		
Sets the MLDA at 21 years old	Reduction in alcohol consumption among high school students, college students, and other young adults ¹²⁴⁻¹²⁸		
	• After adoption of age 21 MLDA, the prevalence rates of past month drinking and of binge drinking among those aged 18 to 20 decreased from 59.1 and 31.4 percent in 1985 to 46.5 and 24.1 percent in 1999; some increases in these behaviors were noted between 1997 and 1999. In 2020, 32 percent of individuals aged 18 to 20 reported past-month drinking. ¹³		
	Reduction in alcohol use disorder (AUD) among adults ¹³⁰ Reduction in motor vehicle crashes		
	 The National Highway Traffic Safety Administration estimates that the law prevented 31,959 deaths from 1975 through 2017 due to alcohol-related traffic crashes.¹³¹ 		
	Reductions in crime		
	 Research has shown that early initiation of alcohol use is associated with greater alcohol-related violence, dating violence, and unintentional injury, among other negative consequences.¹²⁵ 		

Health Equity Considerations of the Policy

Given that the minimum legal purchase age affects all individuals in the United States under the age of 21, it does not have disproportionate impacts on particular communities or populations. However, as with many policies, it requires enforcement to be effective, and communities should ensure equitable enforcement of policies. <u>The Community Preventive Services Task</u> <u>Force</u> recommends ensuring community buy-in for enforcement of underage drinking laws,¹³² which may assist in equitable implementation.

Real World Implementation Example

 By 1988, all states set a minimum legal purchasing age of 21, in accordance with the 1984 federal law. However, states continue to find loopholes in this law that allow for youth consumption, such as drinking on private premises with parental consent. As of January 2021, 15 states had no exceptions to this law, which is in alignment with the best evidence on this policy.

Limiting Days or Hours of Sales

Localities, states, tribes (federally recognized AI/AN tribal governments), and territories can limit access to and availability of alcohol by reducing the number of days or hours that businesses can sell it for consumption on- or off-premises. In the United States, research on these policies has largely focused on the impact of legalizing Sunday sales at off-premises outlets or restricting hours that on- or off-premises stores can sell alcohol.

In the context of this guide, "limiting" can mean maintaining existing limits in response to any efforts to expand current days or hours of sale or enacting more stringent limits than currently exist. Limiting the hours of sale decreases alcohol availability and reduces consumption and related harms. Several scientific bodies have recommended limiting hours and days of sale, including the <u>World Health Organization</u>¹³³ and <u>The Community Preventive Services Task Force.⁸⁷</u>

Policy: Limiting Days/Hours of Sale		
Description	Examples of Outcomes	
Limits the days and	Limiting Days of Sale	
hours that retailers can	Reduction in alcohol consumption ¹³⁴⁻¹³⁵	
sell alcohol, both on- and off-premises	• One additional day of alcohol sales significantly increased per capita consumption of all alcohol by 3 percent, of beer by 5 percent, and of wine and liquor by 3 percent. ¹⁰²	
	Reduction in alcohol-related harms ¹³⁶⁻¹³⁷	
	• In seven states that repealed Sunday sales bans for off-premises outlets, violent and property crimes increased significantly, by between 16 and 23 percent on Sundays. ¹³⁸	
	• In Virginia, an additional day of sale for stores that sell alcohol was associated with increased alcohol-related crimes committed on Sundays in areas near outlets that allowed Sunday sales. ¹³⁹ Similar results were found in Pennsylvania, which showed a significant increase in crime occurring around Sunday-open state liquor stores in low-socioeconomic-status neighborhoods. ¹³⁷	
	Limiting Hours of Sale	
	Reduction in alcohol consumption ⁸⁷	
	Reduction in alcohol-related harms	
	• Allowing alcohol sales for an extra two hours or more was associated with increases in injuries from vehicle crashes, alcohol-related assaults and injuries, and admissions to the emergency department. ⁸⁷	

Real World Implementation Examples

- Sunday sales: There are no United States examples of reducing the numbers of days in which retailers can sell alcohol; instead, the trend has been to increase the number of days by allowing sales on Sundays.
- Hours of sale: In 2020, one legislative district in Baltimore reduced the allowed hours of alcohol sales in on- and off-premises establishments from 6:00 a.m.–2:00 a.m. to 10:00 a.m.–10:00 p.m.

Health Equity Considerations of the Policy

Following a partial repeal of Sunday sales bans in Philadelphia, one study found increases in property and overall crimes on Sundays in the immediate vicinity of alcohol outlets, but only around outlets in neighborhoods with low socioeconomic status.¹³⁷ The authors noted that many of these neighborhoods had above average rates of crime prior to the intervention, and that the findings were consistent with previous analyses showing that alcohol availability is associated with crime in areas with high poverty.¹³⁷ These findings suggest that increasing the hours and days of sale may disproportionately lead to increased harm in <u>under-resourced communities</u>. See the earlier section on "<u>Regulating Alcohol Outlet Density</u>" for more on this issue.

Financial Availability

Increasing the price of alcohol has shown reduced consumption among both youth and adults.¹⁴¹ Price increases can be accomplished by raising alcohol taxes, implementing minimum pricing policies, and banning price promotions, such as "happy hours."

Increasing Alcohol Taxes

The evidence on the association between raising alcohol prices, usually by increasing taxes on alcohol, and decreased consumption and associated problems has been growing for more than 50 years. Policymakers at the federal, state, and some local, tribal, and territorial levels can pass alcohol tax policies.

Excise taxes are based on the volume of alcohol sold, are different for different alcoholic beverages (beer, wine, liquor), and their real dollar value will decline if

not adjusted for inflation.¹⁴² It is critical that excise taxes be adjusted regularly for inflation so they do not lose effectiveness as a prevention measure over time.¹⁴³

Sales taxes are a percentage of the price of alcohol, may or may not differ by type of alcohol, and increase as the price of the alcoholic beverage increases, which will help account for some inflation.¹⁴²

Raising the price on only one type of alcoholic beverage (e.g., beer, wine, or spirits) may lead to a switching of preference to the now cheaper option. A study of substantial tax increases on distilled spirits and wine, but not beer, enacted in Illinois in 2009 found that sales of spirits and wine decreased significantly but beer sales increased sufficiently to largely offset the decline in overall alcohol sales volume.¹⁴⁴ Nevertheless, there was still a reduction in alcohol-related harms.¹⁴⁵⁻¹⁴⁶ For this reason, <u>stakeholders</u> may want to consider raising taxes across all product types. Alcohol taxes are recommended by <u>The Community Preventive Services Task Force</u> and are listed as one of the <u>World Health Organization's</u> "best buys" (effective and cost-effective ways to reduce non-communicable disease, including AUD).

The State Alcohol Control System

Alcohol is sold in two different types of states: 1) Control states/iurisdictions, where the government controls alcohol sales, and 2) License states/ jurisdictions, where governments license private businesses to conduct alcohol sales. In the United States, state or local control of alcohol sales is primarily limited to off-premises establishments. States/iurisdictions that move from control to privatized systems have experienced increases in the number of off-premises outlets, as well as longer hours and days of sale. Additionally, privatized systems have more alcohol advertising, greater numbers and types of alcohol products sold, and poorer enforcement of sales laws, including enforcing MLDA. Ultimately, privatization is associated with increases in alcohol misuse.88 As a result of these findings, the Community Guide recommends against privatization.¹⁴⁰

Policy: Increasing Alcohol Taxes		
Description	Examples of Outcomes	
Increases in the price of alcohol, either by volume (excise tax) or retail sale price (sales tax)	 Alcohol consumption across the general population,⁸⁵ as well as among underage populations⁸⁵ and Hispanic people¹⁴⁷ A 10-percent increase in price is estimated to decrease:⁸⁵ Beer consumption by 5 percent Wine consumption by 6 percent Liquor consumption by 8 percent Total alcohol consumption by 8 percent Alcohol-related harms Based on data from 50 studies, a doubling of the alcohol tax was estimated to result in average reductions in alcohol-related mortality (35 percent), motor vehicle fatalities (11 percent), sexually transmitted infections (6 percent), violence (2 percent), and crime (1 percent).¹⁴⁸ Lower risk of alcohol-related consequences among Black women.¹¹⁹ 	

Health Equity Considerations of the Policy

Despite concerns that these taxes are regressive in nature, meaning they disproportionately impact those with lower incomes, research has shown that it is people who drink excessively who most experience the increased cost for alcohol taxes, regardless of income level.^{143, 149} A study specifically looking at whether alcohol taxes disproportionately affect low-income communities found that if there are regressive effects, they are small and primarily concentrated among the heaviest drinking populations, not the broader population of people who drink alcohol.¹⁵⁰ Research has shown that alcohol taxes primarily affect the heaviest consumers of alcohol, who tend to be White, college-educated males between the ages of 21 and 50 earning \$50,000 or more per year.¹⁴⁹

Finally, the benefits of higher alcohol taxes are generally progressive—meaning particularly beneficial to populations with fewer resources—as tax revenues are typically used to fund government services, which people with lower incomes are more likely to use than those with more personal wealth. Tax revenues can benefit prevention directly, by designating a portion of the derived revenues specifically for prevention and treatment services at the local, state, tribal, or territorial level.

Real World Implementation Examples

- After Maryland increased its sales tax on alcohol from 6 to 9 percent in 2011, the amount of total alcohol sold declined 4 percent in the 18 months following the increase.¹⁵¹ Between 2011 and 2016, there was a 17-percent reduction in binge drinking by Maryland adults compared to an average national reduction of 6 percent.¹⁵² There was also a 28-percent reduction in the number of Maryland high school students who reported binge drinking in the past 30 days between 2011 and 2015.¹⁵² The implementation of this policy was also associated with a significant 6-percent annual reduction in the rate of alcohol-impaired drivers on Maryland highways.¹⁵³
- After a 2009 increase in alcohol excise taxes in Illinois there was a 26-percent reduction in fatal alcohol-related motor vehicle crashes in the following 28-month period (from September 2009 to December 2011)—a decrease of nearly 10 deaths per month.¹⁴⁵
- Following a 1983 alcohol tax increase in Alaska there was a 29-percent decrease in alcohol-related deaths; an additional alcohol tax in 2002 was associated with an additional 11-percent decrease in such deaths.¹⁵⁴

Minimum Pricing

Alcohol minimum pricing policies are another way of maintaining or raising the price of alcohol and reducing practices that create risk of alcohol-related harms. There are two different ways to establish minimum prices: through a minimum unit price (MUP), which establishes a floor price per "unit" of pure alcohol, or a minimum price based on the container size of a specific alcoholic beverage type, regardless of the alcohol content within that beverage (such as a minimum price for a liter of beer, a liter of wine, or a liter of liquor).¹⁵⁵

These policies can be made specific to on- or offpremises alcohol outlets, and retailers cannot sell alcohol for less than that price. MUP policies can be particularly effective for reducing alcohol use and related harms among people who drink excessively because they purchase larger quantities of alcohol; therefore, they purchase less, even though they tend to spend the same amount on alcohol after MUP policies are implemented.¹⁵⁶⁻¹⁵⁷ As a result, MUP policies can reduce consumption and related harms, raise tax revenue, and reduce health inequalities.¹⁵⁶ Like excise taxes, MUPs will lose their effectiveness over time if they are not regularly adjusted for inflation. Minimum pricing has not been consistently implemented in the United States but is being explored based on the evidence from other countries, including Scotland and Canada.¹⁵⁷⁻¹⁵⁹

Policy: Increasing the Minimum Unit Price of Alcohol		
Description	Examples of Outcomes	
Sets a minimum	Decrease in alcohol sales	
price per unit of alcohol or amount of alcoholic beverage,	 In May 2018, Scotland set an MUP per unit of alcohol (at the time equal to approximately \$1.34 for a standard drink) that was associated with an 8-percent reduction in alcohol sales. Wales implemented the same policy in March 2020, which was associated with a 9-percent reduction in alcohol sales.¹⁵⁷ 	
either on- or Decrease in alcohol-related harms		
off-premises, or both	 In British Columbia, a 10-percent increase in the minimum price of alcoholic beverages was associated a year later with a 9-percent decrease in alcohol-related hospital admissions,¹⁵⁸ a 32-percent decrease in alcohol-attributable deaths,¹⁵⁹ and a 10-percent reduction in all crimes.¹⁶⁰ 	



Health Equity Considerations of the Policy

The research on health inequalities related to MUP has been done primarily in the United Kingdom¹⁶¹ and Canada.¹⁶⁰ Overall, minimum pricing policies mainly affect people who drink the most alcohol, regardless of income level.¹⁵⁵ Modeling results showed that the price increase was mostly assumed by people who drink heavily, but this group also had the greatest decrease in consumption. Additionally, the health benefits of the MUP policy particularly benefited individuals with the lowest socioeconomic status through greater reductions in harms. Individuals with the lowest socioeconomic status were 42 percent of the total study sample, but accounted for 82 percent of the reduction in premature deaths and 88 percent of the improvement in quality-adjusted life years.¹⁶²

Real World Implementation Examples

- MUP policies have been introduced in Australia, Ireland, and Scotland.¹⁵⁵
- In 2021, the Oregon Liquor and Cannabis Commission implemented a new minimum pricing policy for distilled spirits.¹⁶³

Social and Psychological Availability

Restricting alcohol marketing is the primary way to decrease the social and psychological availability of alcohol, known to be a risk factor for alcohol consumption. This research has primarily been done with youth, and increasingly shows that greater exposure and receptivity to marketing leads to:

- More developed norms and expectations (social availability)
- More identity building around drinking (psychological availability)¹⁶⁴

Overall, the evidence is clear that youth exposure to alcohol marketing is associated with increases in youth drinking.¹⁷

Local, state, and territorial efforts to reduce alcohol advertising have largely focused on limiting outdoor advertising, such as on billboards, and limiting advertising at the point of sale, such as on alcohol outlet windows (including grocery/liquor stores and bars/ restaurants) and within the establishments themselves. Similar to alcohol outlet density, zoning policies can determine where alcohol can be seen, to reduce youth exposure (e.g., near schools and playgrounds) and disproportionate marketing to racial/ethnic populations (e.g., in predominantly Black, Indigenous, and People of Color (BIPOC) communities).¹⁶⁵ Full advertising bans have been determined to be the most effective option,¹⁶⁶ but can be difficult to achieve; more limited restrictions are possible, as described below.

Research has shown increased evidence of the harmfulness of digital marketing on youth alcohol consumption, suggesting the need for additional policy options to reduce youth exposure to online alcohol marketing.¹⁶⁷ Reducing or banning alcohol advertising is one of the <u>World Health Organization's</u> top recommendations to reduce non-communicable diseases, including AUD.

Health Equity Considerations of the Policy

Equity considerations around alcohol advertising and marketing are particularly relevant for youth populations and individuals living in under-resourced communities. For example, a study of alcohol advertising in Boston subway and streetcar stations found that Boston public school students reported seeing 1.34 alcohol advertisements per day at those locations, while the population as a whole saw just 1.09. Additionally, there were more advertisements in neighborhoods with high poverty rates (1.27 ads per station) than in neighborhoods with low poverty rates (1.16 ads per station).¹⁷¹ A study of youth in Los Angeles found that African American and Hispanic youth were exposed to nearly twice as many alcohol advertisements across all media than their non-Hispanic, White peers, and that girls were exposed to 30 percent more advertising than boys.¹⁷²

Given that women, BIPOC populations, and those living in lower socioeconomic status neighborhoods face greater exposure to alcohol advertising, reducing alcohol advertisements is considered an effective policy to help address this inequity. Additional research on the effects of policies that restrict alcohol advertising would further inform how these policies can reduce racial or ethnic disparities regarding exposure to alcohol marketing. Reducing disproportionate exposure to alcohol advertising may also reduce harms in neighborhoods of predominantly LGBTQI+ individuals, though there is little research exploring this specific population.

Policy: Limiting Alcohol Advertising and Marketing		
Description	Examples of Outcomes	
Limit or ban alcohol advertisements and marketing; bans may limit advertising on or in alcohol establishments, on billboards, or on city- owned property (such as bus or subway stations)	 Reduction in alcohol consumption¹⁷ Each additional alcohol advertisement that youth are exposed to is associated with a 1-percent increase in the number of drinks consumed.¹⁶⁸ 	
	Decrease in positive drinking expectancies and norms among youth ¹⁶⁹⁻¹⁷⁰	

Real World Implementation Examples

- In 2017, New York City banned alcohol advertisements on city buses, subway cars, and in subway stations, and in 2019 implemented a ban on alcohol advertising on city-owned property. Los Angeles, Philadelphia, and San Francisco have enacted similar policies.
- All European countries, except the United Kingdom, have banned one or more types of alcohol advertising,¹⁷³ including a total ban in Norway passed in 1975 that has since shown a sustained 8-percent reduction in consumption.¹⁷⁴

Dram Shop (Commercial Host) Liability Laws

Dram shop, or commercial host, liability laws make an on-premises alcohol outlet (e.g., a bar, tavern, or similar commercial establishment) liable for the harmful actions of intoxicated patrons when the establishment serves alcohol to clearly intoxicated people or minors. Dram shop liability laws are an effective strategy to reduce alcohol consumption and alcohol-related harms,¹⁷⁵⁻¹⁷⁶ with the potential benefit of business environments that support responsible beverage service without penalizing those who follow liquor control laws.¹⁷⁶ However, such laws may be limited by caps on the financial liability of servers and managers, statutes of limitations, and the standards for required evidence.¹⁷⁶

Health Equity Considerations of the Policy

This policy must be implemented equitably across all retailers to ensure that establishments owned by BIPOC individuals are not disproportionally targeted for liability.

Real World Implementation Examples

 Most states have enacted dram shop (commercial host) liability laws for service to intoxicated adult customers and to underage customers.^{175, 177}

Policies With Moderate Evidence

There are several other effective policies that communities should consider while they work towards the high priority policies listed above. These policies are grounded in either evidence or in the theories of availability described above.

- **Restricting social availability of alcohol** (i.e., social host policies). Social host ordinances hold individuals responsible for hosting or providing a location for underage drinking and impose citations or fines. Research on the effects of these policies is limited to those that levy criminal penalties, which raises equity issues because of disparities in enforcement. The best practice is a civil social host liability law, which levies a civil fine rather than criminal prosecution; there have been few scientific evaluations of this law to date.¹⁷⁸⁻¹⁷⁹
- Alcohol-impaired driving countermeasures. Countermeasures for alcohol-impaired driving include reducing the blood alcohol content legal limit from 0.08 to 0.05, collecting information on the establishment that served alcohol to those cited for impaired driving (known as place of last drink), use of ignition interlocks,

Policy: Dram Shop (Social Host) Liability Laws		
Description	Examples of Outcomes	
On-premises alcohol outlets are	Decreases in alcohol-related automobile crash fatalities and injuries	
liable for the harmful actions of the intoxicated patrons they continue to serve alcohol	 Alcohol-related motor vehicle crash fatalities decreased by a median of 6 percent across six studies throughout the United States¹⁷⁵ 	
	 Dram shop liability lawsuits in 1983 and 1984 in Texas led to decreases in single vehicle nighttime crashes of 7 percent and 5 percent after two separate, high-profile cases.¹⁷⁵ 	
	Reduced alcohol consumption ^{175, 176}	

and sobriety checkpoints. These approaches are effective, particularly for reducing automobile crashes, but less so for reducing alcohol misuse and other alcohol-related harms; they often only target people who drink heavily. Decreasing the impaired driving blood alcohol content has shown reductions in injury, single vehicle nighttime crashes, fatalities, and more.⁸⁹

• Limiting price promotions. Another policy that affects the price of alcohol is to restrict price discounting, such as "happy hour," all-youcan-drink specials, and two-for-one purchases. These policies can be passed at the local, state, tribal, or territorial levels. Limited research assesses the impact of these policies in a United States context, but associations have previously been noted between lower alcohol prices and increased consumption and other alcohol-related harms including violence, crime, and traffic fatalities,⁸⁵ leading to the recommendation that such restrictions be pursued or maintained if already in place.

Policies With Limited to No Evidence

There are several policies with limited evidence of effectiveness when done in isolation that communities may nonetheless adapt. They are best implemented in conjunction with policies that have demonstrated strong to moderate evidence of effectiveness. Examples include:

- Voluntary responsible beverage service (RBS). It has been suggested that server demographic characteristics (e.g., age) are related to alcohol sales made to minors and intoxicated customers.¹⁸⁰ RBS is a training for servers and sellers to address such sales, but there is limited evidence demonstrating the effectiveness of this strategy in reducing alcohol misuse.¹⁸¹
- **Retail environment limitations**. These limitations may include reducing the floor space dedicated to alcohol products and banning products with a high risk of alcohol-related

harm. Communities have also implemented numerous other strategies and policies that address the broader retail environment, like prohibiting end-of-aisle placement; however, the evidence on these approaches is still emerging.

• Restrictions on public places where alcohol is sold/consumed. Communities may also restrict locations where alcohol is consumed, such as parks, festivals, and sporting events—additional research is needed to understand how effective these policies are; they may also raise equity issues, if they are selectively enforced.

Future Research

Across the nation, some communities might find it challenging to address the increased availability of alcohol due to the general deregulation of alcohol policies over the years. Additional policy changes during the COVID-19 public health emergency increased the availability of alcohol, with an expansion in the number of states that allowed home delivery of alcohol. Some states have also made permanent the emergency allowances for curbside pickup of alcohol, and expanded restaurants and bars that allow alcohol consumption on adjacent sidewalks, parking lots, or other designated outdoor areas. Effects of these policies continue to be studied. Prevention practitioners and communities should rely on the basic principles of availability theory, as described above, to institute policies and strategies that address the deregulation of previously implemented policies.

To further support the implementation of effective alcohol policies in communities, researchers can continue evaluating the effects of implemented policies, including assessing whether there are disproportionate effects on different communities (e.g., rural/urban/ suburban) and populations, to ensure equitable implementation, enforcement, and outcomes. One option would be to build health equity impact assessments into law and rulemaking efforts at the local, state, tribal, and territorial levels; other countries, such as <u>Canada</u>, have implemented similar approaches to prioritize establishing equitable policies.



Examples of Policies to Prevent Alcohol Misuse

This chapter highlights three examples of different policies and regulations enacted at both the state and local levels to prevent alcohol misuse in different communities. These examples illustrate the importance of advocacy and community involvement in developing policies and regulations and how the development and capacity building of community organizations facilitate actionable change.

- The first case example, Miami Gardens, Florida, describes a coalition-driven initiative implemented to reduce alcohol consumption associated with crime and a high risk of harm and to address inequitable alcohol marketing practices.
- The second example, the state of Oregon, explains how the state's regulatory agency instituted a minimum pricing policy on distilled spirits to reduce alcohol misuse, particularly among those who drink the most, to make a positive impact on public health and reduce alcohol-related harm.
- The third example, Baltimore, Maryland, illustrates how community collaboration and advocacy led to legislation that limits alcohol sale hours in a defined geographic area by using a data-driven approach that addressed public safety issues in and near off-premises alcohol establishments.



Policies Described in Chapter 2

- Regulating alcohol outlet density
- Minimum legal purchase age
- Limiting days and/or hours of sale
- Increasing alcohol taxes
- Minimum pricing
- Limiting price promotions

Each case example differs from the others in terms of context, policy or regulation, and adaptions made to meet the needs of the community. The examples only highlight key components of the policy or regulatory action process—they are not meant to be exhaustive narratives of a community's policy planning and implementation processes. Additional information can be found in the "Related Resources" section of each case example.

Specific information about the policies and regulations presented in this chapter was gathered from experts and through an environmental scan of policies, regulations, resources, and publications from state and federal government agencies and nonprofit organizations.

Reducing Alcohol Consumption Associated with Alcohol-Related Harm and Crime

Miami Gardens, Florida

Setting

The Live Healthy Miami Gardens (LHMG) Initiative and its Alcohol, Tobacco, and Other Drugs (ATOD) Sub-Council is a partnership of 100 organizations and residents working together to develop and implement effective community-level health strategies that improve health outcomes in the City of Miami Gardens, Florida. Miami Gardens is the third largest city in Miami-Dade County, with more than 105,000 residents.¹⁸⁹ It is a diverse, working- and middle-class community, where approximately 71 percent of residents identify as African American and 26 percent as Hispanic.¹⁹⁰

Issue

The rates of alcohol sales to minors, illegal after-hours sales, and police calls for service to alcohol retailers and surrounding areas, coupled with the negative impacts of alcohol use on youth and neighborhoods, caused concern among residents and law enforcement officials. During 2018 and 2019, more than 30 percent of off-premises alcohol retailers sampled sold alcohol to underage decoy shoppers and more than 90 percent sold alcohol products after hours, both in violation of state and local laws. Research conducted by the ATOD Sub-Council identified concerns with predatory marketing practices that specifically targeted communities of color in Miami Gardens. In addition, LHMG documented that the marketing and sale of alcohol products with high risk of alcohol-related harms in their community was disproportionately high compared to surrounding towns. An assessment found that 71 percent of retailers carried a large volume of high-content alcohol products, compared to 12 percent in a predominantly White neighborhoods. For example, the same pharmacy chain sold and promoted alcohol products with a high risk of alcohol-related harm in Miami Gardens, but not in the neighboring White community. Even within Miami Gardens, the LHMG Initiative found higher risk alcohol practices and products in lower income sections of the city compared to higher income sections.

Solution

LHMG organized community support to change the alcohol environment in the city. After years of building a coalition to assess the alcohol risk environment and explore the inequities present in their community, the LHMG Initiative worked with the Miami Gardens City Council to develop new policies and enforcement procedures based on local research and observations. The Miami Gardens City Council decided to enforce various ordinances more diligently and revise existing protocols. These ordinances included:

- Sign ordinance limiting window space dedicated to promotional materials: the total area of all signs affixed or displayed in windows shall not exceed 20 percent of the window area, up to a maximum of 40 square feet.
- Local ordinance requiring all outlets selling beer and wine to ensure the sale of these products will make up no more than 15 percent of a store's gross receipts and that merchants must comply with the existing sign ordinance.
- Local ordinance that alcohol may not be sold between midnight and 6:00 a.m.

The Miami Gardens City Council also adopted three new ordinances:

- 1. Set of nuisance standards on existing and new alcohol outlets to reduce the negative impacts of nuisance and criminal activity in areas surrounding retailers.
- 2. Ordinance that requires establishments to lock coolers containing alcohol after midnight if the floor area of the outlet is less than 500 square feet.
- 3. Ordinance that requires establishments to move coolers and ice bins containing alcohol at least 20 feet from the register.

Intervention

Policy development occurred in three phases: readiness, research, and development.

Reducing Alcohol Consumption Associated with Alcohol-Related Harm and Crime

Miami Gardens, Florida

- **Phase 1: Readiness** focused on developing community readiness, obtaining stakeholder buy-in, establishing interest and capacity, securing resources, and cultivating relationships with state officials and senior city staff and department heads in Miami Gardens, such as those in code and law enforcement. The effort began in 2004 and took more than a decade to achieve its goal of community readiness.
- **Phase 2: Research**, from 2017 to 2019, conducted information gathering and data collection to identify the nature of the alcohol problems in the city, which resulted in potential policies and strategies to address them.
- **Phase 3: Development**, from 2019 to 2021, prioritized revising existing ordinances and enforcement protocols, developing new policies, and leveraging connections and relationships to enforce existing policies and strategies.

Phases 1 and 2 (activities conducted in 2004–2019) cost approximately \$500,000. Phase 3 (2019–2021) cost approximately \$100,000. The three phases included building a coalition, training staff on environmental strategies, collecting data to understand the scope of the problem, educating and organizing staff and community members, and adopting policies addressing the retail environment, to reduce nuisance behavior and violence. Policy development was supported by grants from the <u>Health Foundation of South Florida</u>, a philanthropic nonprofit agency focused on policy and system changes that improve the health of South Florida communities. Federal, state, and local government agencies provided funding to support early phases of implementation.

At the time of this guide's publication, all phases of policy development and passage were complete, and work was underway to implement the policies.

Outcomes and Other Benefits

- The policy process in the City of Miami Gardens included the revision and enforcement of existing policies, as well as the development of new policies, which arose out of work conducted over a decade in the community. Through their work, LHMG successfully reframed alcohol consumption as a public health issue in the City of Miami Gardens.
- Research suggests that city-level restrictions on the sale of high-alcohol content beverages result in reductions in crime, like assaults and vandalism, and can reduce alcohol retailers' risky alcohol-related operating practices.⁸⁷⁻⁸⁸ In Miami Gardens, additional laws and better enforcement of existing laws can significantly reduce access to these products.

Lessons Learned

- **Coalition Development:** Policy development can take considerable time. Forming a coalition solidifies community commitment and maintains engagement throughout this process. A coalition will also serve as a community resource, as members become experts on alcohol policy through the work they are doing, ultimately providing a forum for solving other community-level problems.
- **Relationship Building and Stakeholder Buy-in:** LHMG established relationships with state and local officials, which helped to ensure that new policies were sensitive to the roles and interests of code enforcement, law enforcement, and the state (including alcoholic beverage control and the health department). Because of these relationships, key stakeholders viewed the coalition as a valued member of the community, which fostered collaboration based on mutual trust.
- **Data-Driven Approach:** LHMG modeled local data collection on national research on alcoholic beverages with a high risk of alcohol-related harm, alcohol outlet density, and marketing practices. When these national data were compared to conditions in the local community, they provided additional context that helped explain local observations. This context facilitated buy-in by and collaboration of some stakeholders, including law enforcement.

Related Resources

- Live Healthy Miami Gardens
- LHMG ATOD Sub-Council

Implementing a Minimum Pricing Policy Through Regulatory Action

State of Oregon

Setting

Established in 1933 as a state agency, the <u>Oregon Liquor and Cannabis Commission</u> (OLCC, formerly called the Oregon Liquor Control Commission) regulates the sale and service of distilled spirits and the production, processing, and sale of both medical and non-medical cannabis products.¹⁹¹ The purpose of the OLCC is to support businesses, public safety, and community livability through education about and enforcement of liquor and cannabis laws.

Issue

Alcohol misuse is a substantial issue in Oregon. In 2020, the state ranked sixteenth in the nation for per capita alcohol consumption, according to a report published by the National Institute on Alcohol Abuse and Alcoholism;¹⁹² and in 2020, data from SAMHSA's National Survey on Drug Use and Health found that 12 percent—nearly one in eight—of Oregonians aged 12 and older had an alcohol use disorder, the sixth highest rate in the country.¹⁹³ In addition to high rates of alcohol misuse, in 2020, Oregon had the greatest proportion of individuals in need of substance use disorder treatment but who did not receive it, compared to all other states.¹⁹⁴ Excessive alcohol use has had a negative effect in Oregon, costing the state \$4.8 billion in 2019— approximately \$1,100 per person.¹⁹⁵ Most of this cost was due to lost earnings for businesses and employees, and nearly 15 percent resulted from hospitalizations and other care related to excessive alcohol use.

Solution

Recognizing rising rates of alcohol misuse and related harms in the state, the OLCC proposed a minimum pricing policy that balances public health and business interests.¹⁹⁶ OLCC developed the policy with input from stakeholders, including public health agencies (such as the <u>Oregon Health Authority</u>), alcohol manufacturers and retailers, alcohol licensees (e.g., restaurants, bars), advocacy organizations, and the public. The policy provides a "floor" price for distilled spirits, but beer and wine are excluded. This policy increased the cost of high-proof, formerly low-priced spirits. All products that contain a high percentage of alcohol are subject to the floor pricing policy, resulting in higher prices for products with a greater alcohol content. For example, the minimum price for a 750 ml bottle of 80-proof spirits was set at \$8.95, with higher minimum prices for larger bottles or higher-proof liquors. Once developed, OLCC implemented the policy through regulatory action, not legislation. It is important to note that this rule could be implemented because of OLCC's control over distilled spirits. States, counties, tribal nations, or territories with different alcohol control systems may need to seek alternative mechanisms to implement a minimum prices, based on factors like the current market and inflation.

Intervention

OLCC's goal of reducing liquor consumption by heavy and binge drinkers drove development of the minimum pricing policy structure. With that goal in mind, the OLCC began to research regulatory actions that would align with public health and prevention objectives, as well as create revenue for the state. OLCC identified and discussed additional options, such as ceiling pricing and quantity limits, and conducted a SWOT (strengths, weaknesses, opportunities, and threats) analysis for each option identified. Throughout the development of the policy, OLCC collaborated closely with stakeholders to ensure the final regulatory action represented the interests of all parties and that the formula for pricing was fair and consistent with the original goal.

The identification-to-implementation process took 18 to 20 months to complete. Work began in early 2020, and consisted of strategy development, stakeholder identification, and compilation of resources. The first public notice was published in January 2021, and the policy went to the commission for verbal testimony in April 2021. Once these processes were complete, OLCC passed the regulatory action in July 2021, and it took effect in October 2021. OLCC staff developed the policy as part of their normal work, so there was no additional cost associated with this policy beyond staff time, which is funded by the state budget.

Implementing a Minimum Pricing Policy Through Regulatory Action

State of Oregon

Outcomes and Other Benefits

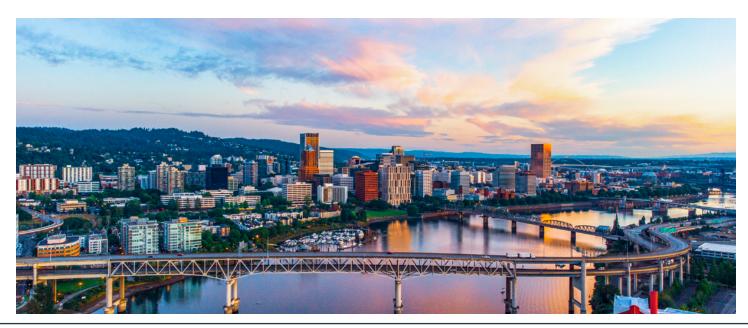
- The regulatory action affected the price of approximately <u>112 alcohol products</u> sold in Oregon, and the OLCC expects a 0.5-percent reduction in overall demand for alcohol.¹⁹⁷
- Implementation of this regulatory action will raise revenue while reducing alcohol-related harms. Research suggests that an increase in the price of alcohol is associated with reductions in alcohol misuse, underage consumption, and alcohol-related harms.⁹⁶ There is also evidence to suggest that increasing the price of alcohol will reduce health inequities among different income groups.¹⁹⁷
- As the state of Oregon receives revenue from the sale of distilled spirits, OLCC estimated that the General Fund would increase by \$7.5 million between 2021 and 2023 as a result of the higher prices required by the policy.¹⁹⁷

Lessons Learned

- **Collaboration**: Working with various stakeholders was vital to ensure that the final regulatory action aligned with their interests. Stakeholders included representatives from the alcohol industry, industry groups, alcohol licensees (e.g., restaurants, bars), alcohol manufacturers and suppliers, retail liquor agents, public health stakeholders (such as the Oregon Health Authority), and the public. OLCC also received support from the State of Oregon Public Health Division, the Oregon Health Authority, and the Oregon Alcohol and Drug Policy Commission, all of whom sent letters of support for this regulatory action.
- **Options**: OLCC researched different policy options with the potential to produce the desired outcomes. They then approached their partners with the options—a key step that was instrumental in maintaining momentum and interest.
- Advocacy: The Alcohol and Drug Policy Commission and community advocacy groups were eager for additional action that addresses the high alcohol and other drug use rates in Oregon. In fact, the Commission's 2020–2025 strategic plan included language to increase the price of alcohol, and a 2021 bill introduced in the Oregon House would have raised alcohol taxes. These efforts, along with many others, helped create an environment that supported the OLCC effort to pass the above regulatory action.

Related Resources

- Oregon Liquor Control Commission
- OLCC Price Floor Summary
- Oregon Recovers



Implementing Community-Level Policies to Prevent Alcohol Misuse Examples of Policies to Prevent Alcohol Misuse

Baltimore City Council – Limiting Hours of Alcohol Sales

Baltimore, Maryland

Settings

As the legislative branch of the state's government, the General Assembly of Maryland is responsible for representing constituents, passing laws, managing revenue and funding, and overseeing executive agencies. The Assembly includes a 47-member Senate and a 141-member House of Delegates, with 1 senator and 3 delegates representing each of the state's 47 legislative districts. The 45th legislative district is in the city of Baltimore and is home to approximately 115,000 people. As of 2018, the population of the 45th legislative district is approximately 73 percent Black, 20 percent White, and 7 percent other races; roughly 3 percent identify as Hispanic. The median household income in the district is \$39,600, with more than 20 percent of the population living at or below the poverty level.¹⁹⁸⁻¹⁹⁹

Issue

In one neighborhood of the 45th legislative district in Baltimore, political representatives and community members grew increasingly concerned with the number of fatal and non-fatal shootings. In October 2019, there were two shootings in a single week in one retail alcohol establishment, prompting concern among residents and local officials. State legislators met with local officials and law enforcement and learned that in the previous three years 29 shootings had occurred in front of that establishment or within 500 feet.

Upon learning this fact, legislators and other officials collaborated with the Baltimore City Police Department and examined data related to gun-related violence in this neighborhood to assess the extent of violence. Police data showed that one neighborhood in the 45th legislative district was experiencing high rates of gun violence directly outside of off-premises alcohol outlets in the area. Data revealed that there were more than 20 alcohol establishments within a one-mile radius, and that at least 3 shootings had occurred in or around each establishment during the past three years—for a total of 130 shootings and 68 homicides. Most of these crimes occurred between the hours of 10:00 p.m. and 2:00 a.m.

Solution

In Maryland, the state legislature regulates much of local alcohol availability, but legislators traditionally defer to local representatives regarding these decisions. Senator Cory McCray, who represents the 45th legislative district, introduced legislation to reduce crime and violence occurring at and around off-premises alcohol outlets in the neighborhood. The legislation limited the hours of alcohol sales in a defined geographic area of Baltimore City, drawing on evidence that such limits reduce alcohol-related harms, including homicides and other crimes. Specifically, the state passed legislation restricting "taverns" in this area to limit alcohol sales from 9:00 a.m. to 10:00 p.m. A tavern, the most common license category in Baltimore, is an establishment that is permitted to sell for both on- and off-premises consumption. Outside this defined geographic area, Baltimore City allows taverns to sell alcohol from 6:00 a.m. to 2:00 a.m., unless otherwise stated.

Intervention

The Senate introduced the legislation on January 31, 2020, and the language was ultimately included in <u>House Bill</u> <u>954</u>, which went into effect on July 1, 2020. Once in effect, alcohol retailers needed to be notified about the change in law. Additionally, enforcement was needed to ensure retailers were following the new law. The Liquor License Board is the agency primarily responsible for enforcement, with additional support from the Baltimore City Police Department, as needed. A financial review of the new policy found that there was no extra cost to the state or Baltimore City, which had the necessary resources for enforcement of this new policy.

Since the legislation passed, legislators meet with the Baltimore City Police Department once a month to monitor the data related to violent crime and make sure that the city is meeting its goal of reducing gun violence in the neighborhood.

Baltimore City Council – Limiting Hours of Alcohol Sales

Baltimore, Maryland

Outcomes and Other Benefits

- The legislation took effect on July 1, 2020, and in the first 30 days after the legislation took effect, only 3 of the more than 20 affected establishments failed to comply with the new regulations. Two months after the legislation went into effect, officials observed a 50-percent reduction in homicides and violent crime near these establishments during the hours they were closed, compared to the same month in the previous year (i.e., comparing September 2019 to September 2020).²⁰⁰ During the same time period, there were 34 fewer homicides within 500 feet of an alcohol establishment.
- Subsequently, the General Assembly passed similar laws to limit the hours of alcohol sales in Baltimore neighborhoods within the 40th and 41st legislative districts.

Lessons Learned

- **Data-Driven:** The data provided by the Baltimore City Police Department clearly showed an association between the rates of violent crime and number of alcohol establishments in the neighborhood and their hours of sales. Collecting and analyzing data to support legislative interventions and continuing to assess the influence of the legislation on outcomes were critical.
- **Buy-in from Legislators:** Though there had been coalitions advocating for a focus on alcohol and violence throughout Baltimore for years, it was difficult to create new policies until support was received from legislators and local officials. Through the work of legislative champions, the bill received support from the Baltimore City Police Department and local officials and legislators, who prioritized the issue and directed public resources towards its implementation.
- **Collaboration:** State legislators, local officials, and community members worked together to find approaches that would address violent crime, leading to a solution that improved both public health and safety. This example showed that community members have a responsibility to work together to create positive change that improves the health and safety of their neighbors.

Related Resources

- Maryland Senate Bill 571
- Maryland House Bill 954
- 40th Legislative District Data on Liquor Establishments and Crime



Implementing Community-Level Policies to Prevent Alcohol Misuse Examples of Policies to Prevent Alcohol Misuse

Reference List

- ¹ Centers for Disease Control and Prevention. (2020). *Excessive alcohol use*. <u>https://www.cdc.gov/</u> <u>chronicdisease/resources/publications/factsheets/</u> <u>alcohol.htm</u>
- ² Centers for Disease Control and Prevention. (2022). Alcohol and public health: Alcoholrelated disease impact (ARDI). <u>https://</u> nccd.cdc.gov/DPH_ARDI/Default/Report. aspx?T=AAM&P=612EF325-9B55-442B-AE0C-789B06E3A8D5&R=C877B524-834A-47D5-964D-158FE519C894&M=DB4DAAC0-C9B3-4F92-91A5-A5781DA85B68&L=&F=AAMCauseAgeGroupAllNew&D=H
- ³ Substance Abuse and Mental Health Services Administration. (2018). *Alcohol use facts and resources*. <u>https://www.samhsa.gov/sites/default/</u> <u>files/alcohol_use_facts_and_resources_fact_</u> <u>sheet_2018_data.pdf</u>
- ⁴ O'Dwyer, C., Mongan, D., Millar, S. R., Rackard, M., Galvin, B., Long, J., & Barry, J. (2019). Drinking patterns and the distribution of alcoholrelated harms in Ireland: Evidence for the prevention paradox. *BMC Public Health*, *19*, 1323. <u>https://doi.org/10.1186/s12889-019-7666-4</u>
- ⁵ Rossow, I., & Romelsjö, A. (2006). The extent of the 'prevention paradox' in alcohol problems as a function of population drinking patterns. *Addiction*, *101*(1), 84-90. <u>https://doi.org/10.1111/j.1360-0443.2005.01294.x</u>
- ⁶ Department of Agriculture, & Department of Health and Human Services. (n.d.). *Dietary guidelines for Americans*, 2020–2025. www.DietaryGuidelines.gov
- ⁷ Gilbert, P. A., Pass, L. E., Keuroghlian, A. S., Greenfield, T. K., & Reisner, S. L. (2018). Alcohol research with transgender populations: A systematic review and recommendations to strengthen future studies. *Drug and Alcohol Dependence, 186*, 138-146. <u>https://doi.org/10.1016/j.</u> <u>drugalcdep.2018.01.016</u>
- ⁸ American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders: DSM-5 (5th ed., Vol. 5). American Psychiatric Association.
- ⁹ Centers for Disease Control and Prevention. (2021). Alcohol use and your health. <u>https://www.cdc.gov/</u> alcohol/fact-sheets/alcohol-use.htm

- ¹⁰ Alcohol Justice. (2017). Legislative activity dangerous products. <u>https://alcoholjustice.org/</u> legislative-activity/dangerous-products
- ¹¹ Mosher, J. F., & Johnsson, D. (2005). Flavored alcoholic beverages: An international marketing campaign that targets youth. *Journal of Public Health Policy*, 26(3), 326-342. <u>https://doi. org/10.1057/palgrave.jphp.3200037</u>
- ¹² Substance Abuse and Mental Health Services Administration. (2022). *State performance & best practices for the prevention and reduction of underage drinking report*. <u>https://www.samhsa.gov/resource/ebp/state-performance-best-practices-prevention-reduction-underage-drinking</u>
- ¹³ Center for Behavioral Health Statistics and Quality. (2021). 2020 National Survey on Drug Use and Health (NSDUH) releases. <u>https://www.samhsa.gov/ data/release/2020-national-survey-drug-use-andhealth-nsduh-releases</u>
- ¹⁴ National Highway Traffic Safety Administration. (2017). *Traffic safety facts 2016 data: Alcohol-impaired driving*. Department of Transportation. <u>https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812450</u>
- ¹⁵ Eck, R. H., Trangenstein, P. J., Siegel, M., & Jernigan, D. H. (2021). Company-specific revenues from underage drinking. *Journal of Studies on Alcohol and Drugs*, 82(3), 368-376. <u>https://doi.org/10.15288/jsad.2021.82.368</u>
- ¹⁶ Jernigan, D., Noel, J., Landon, J., Thornton, N., & Lobstein, T. (2017). Alcohol marketing and youth alcohol consumption: A systematic review of longitudinal studies published since 2008. *Addiction*, *112*, 7-20. <u>https://doi.org/10.1111/add.13591</u>
- ¹⁷ Sargent, J. D., & Babor, T. F. (2020). The relationship between exposure to alcohol marketing and underage drinking is causal. *Journal of Studies* on Alcohol and Drugs, Supplement(s19), 113-124. https://doi.org/10.15288/jsads.2020.s19.113
- ¹⁸ Dawson, D. A., Goldstein, R. B., Saha, T. D., & Grant, B. F. (2015). Changes in alcohol consumption: United States, 2001–2002 to 2012– 2013. *Drug and Alcohol Dependence, 148*, 56-61. <u>https://doi.org/10.1016/j.drugalcdep.2014.12.016</u>

- ¹⁹ Hingson, R. W., Edwards, E. M., Heeren, T., & Rosenbloom, D. (2009). Age of drinking onset and injuries, motor vehicle crashes, and physical fights after drinking and when not drinking. *Alcoholism: Clinical and Experimental Research*, *33*(5), 783-790. https://doi.org/10.1111/j.1530-0277.2009.00896.x
- ²⁰ Hingson, R. W., Heeren, T., & Edwards, E. M. (2008). Age at drinking onset, alcohol dependence, and their relation to drug use and dependence, driving under the influence of drugs, and motorvehicle crash involvement because of drugs. *Journal* of Studies on Alcohol and Drugs, 69(2), 192-201. https://doi.org/10.15288/jsad.2008.69.192
- ²¹ University of Michigan. (2021). Alcohol use among older adults. <u>https://deepblue.lib.umich.</u> edu/bitstream/handle/2027.42/167901/0236_ <u>NPHA-Alcohol-report-FINAL-06082021.</u> pdf?sequence=4&isAllowed=y#:~:text=In%20 January%202021%2C%20the%20 University,use%20and%20reasons%20for%20 drinking.&text=Two%20in%20three%20adults%20 age,occasionally%20in%20the%20past%20year.
- ²² Sugarman, D., & Greenfield, S. (2021). *Rising alcohol use among older adults*. Harvard Health Publishing. <u>https://www.health.harvard.edu/blog/</u>rising-alcohol-use-among-older-adult-202109242599
- ²³ Greaves, L., Poole, N., & Brabete, A. C. (2022). Sex, gender, and alcohol use: Implications for women and low-risk drinking guidelines. *International Journal* of Environmental Research and Public Health, 19(8), 4523. https://doi.org/10.3390/ijerph19084523
- ²⁴ Flentje, A., Bacca, C. L., & Cochran, B. N. (2015). Missing data in substance abuse research? Researchers' reporting practices of sexual orientation and gender identity. *Drug and Alcohol Dependence*, *147*, 280-284. <u>https://doi.org/10.1016/j.</u> <u>drugalcdep.2014.11.012</u>
- ²⁵ Cotaina, M., Peraire, M., Boscá, M., Echeverria, I., Benito, A., & Haro, G. (2022). Substance use in the transgender population: A meta-analysis. *Brain Science*, 12(3), 366. <u>https://doi.org/10.3390/</u> <u>brainsci12030366</u>
- ²⁶ Schipani-McLaughlin, A. M., Nielsen, K. E., Mosley, E. A., Leone, R. M., Oesterle, D. W., Orchowski, L. M., Davis, K. C., & Gilmore, A. K. (2022). Alcohol use and alcohol-related consequences based on gender and sexual orientation among college students. *The American Journal on Addictions*, *31*(3), 189-199. <u>https://doi. org/10.1111/ajad.13283</u>

- ²⁷ Gerke, D. R., Call, J., Atteberry-Ash, B., Katz-Kattari, S., Kattari, L., Kattari, L., & Hostetter, C. R. (2022). Alcohol use at the intersection of sexual orientation and gender identity in a representative sample of youth in Colorado. *The American Journal on Addictions*, 31(1), 61-68. <u>https://doi.org/10.1111/ajad.13243</u>
- ²⁸ White, A. M. (2020). Gender differences in the epidemiology of alcohol use and related harms in the United States. *Alcohol Research: Current Reviews*, 40(2), 01. <u>https://doi.org/10.35946%2Farcr.v40.2.01</u>
- ²⁹ Abbey, A., Zawacki, T., Buck, P. O., Clinton, A. M., & McAuslan, P. (2001). Alcohol and sexual assault. *Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism*, 25(1), 43-51. <u>https://www.ncbi.nlm.nih.gov/pmc/</u> articles/PMC4484576/
- ³⁰ Centers for Disease Control and Prevention. (2010). National Intimate Partner and Sexual Violence Survey. <u>https://www.cdc.gov/violenceprevention/</u> pdf/nisvs_report2010-a.pdf
- ³¹ National Highway Traffic Safety Adminstration. Drunk driving. <u>https://www.nhtsa.gov/risky-driving/</u> <u>drunk-driving#age-5056</u>
- ³² Slade, T., Chapman, C., Swift, W., Keyes, K., Tonks, Z., & Teesson, M. (2016). Birth cohort trends in the global epidemiology of alcohol use and alcoholrelated harms in men and women: Systematic review and metaregression. *BMJ Open*, 6(10), e011827. https://doi.org/10.1136/bmjopen-2016-011827
- ³³ Centers for Disease Control and Prevention. (n.d.). 1991–2019 High School Youth Risk Behavior Survey Data. <u>http://nccd.cdc.gov/youthonline/</u>
- ³⁴ Centers for Disease Control and Prevention. (2020). Excessive alcohol use is a risk to women's health. Division of Population Health, National Center for Chronic Disease Prevention and Health Promotion. <u>https://www.cdc.gov/alcohol/fact-sheets/womens-health.htm</u>
- ³⁵ National Institute on Alcohol Abuse and Alcoholism. (1999). Are women more vulnerable to alcohol's effects? <u>http://pubs.niaaa.nih.gov/publications/aa46.htm</u>
- ³⁶ World Health Organization. (2021). Alcohol is one of the biggest risk factors for breast cancer. <u>https://</u> www.who.int/europe/news/item/20-10-2021-alcoholis-one-of-the-biggest-risk-factors-for-breast-cancer
- ³⁷ Atkinson, A. M., Sumnall, H., Begley, E., & Jones, L. (2019). A rapid narrative review of literature on gendered alcohol marketing and its effects: Exploring the targeting and representation of women. Institute of Alcohol Studies. <u>https://www.ias.org.uk/wp-content/</u> <u>uploads/2020/06/rp39102019.pdf</u>

- ³⁸ Peralta, R. L., Victory, E., & Thompson, C. L. (2019). Alcohol use disorder in sexual minority adults: Age- and sex-specific prevalence estimates from a national survey, 2015–2017. *Drug Alcohol Depend*, 205, 107673. <u>https://doi.org/10.1016/j.</u> <u>drugalcdep.2019.107673</u>
- ³⁹ Jones, C. M., Clayton, H. B., Deputy, N. P., Roehler, D. R., Ko, J. Y., Esser, M. B., Brookmeyer, K. A., & Hertz, M. F. (2020). Prescription opioid misuse and use of alcohol and other substances among high school students—Youth Risk Behavior Survey, United States, 2019. *Morbidity and Mortality Weekly Report, 69*(1), 38-46. <u>https://doi.org/10.15585/mmwr.su6901a5</u>
- ⁴⁰ Medley, G., Lipari, R. N., Bose, J., Cribb, D. S., Kroutil, L. A., & McHenry, G. (2016). Sexual orientation and estimates of adult substance use and mental health: Results from the 2015 National Survey on Drug Use and Health. NSDUH Data Review. <u>https://www.samhsa.gov/data/sites/ default/files/NSDUH-SexualOrientation-2015/ NSDUH-SexualOrientation-2015/NSDUH-SexualOrientation-2015.htm</u>
- ⁴¹ National Institutes of Health. (n.d.). Substance use and SUDs in LGBTQ populations. <u>https://nida.nih.gov/research-topics/substance-use-suds-in-lgbtq-populations</u>
- ⁴² Jun, H.-J., Webb-Morgan, M., Felner, J. K., Wisdom, J. P., Haley, S. J., Austin, S. B., Katuska, L. M., & Corliss, H. L. (2019). Sexual orientation and gender identity disparities in substance use disorders during young adulthood in a United States longitudinal cohort. *Drug and Alcohol Dependence*, 205, 107619. <u>https://doi.org/10.1016/j.drugalcdep.2019.107619</u>
- ⁴³ Dick, D. M., & Agrawal, A. (2008). The genetics of alcohol and other drug dependence. *Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism, 31*(2), 111-118. <u>https://www.ncbi.nlm.nih.gov/pmc/articles/</u> PMC3860452/
- ⁴⁴ Spivey, J. D., Lee, J. G., & Smallwood, S. W. (2018). Tobacco policies and alcohol sponsorship at lesbian, gay, bisexual, and transgender pride festivals: Time for intervention. *American Journal* of Public Health, 108(2), 187-188. <u>https://doi.org/10.2105/AJPH.2017.304205</u>
- ⁴⁵ Speed, K. (2021). LGBTQ+ health disparities and targeting by big tobacco and alcohol. Counter Tools. <u>https://countertools.org/blog/lgbtq-health-disparitiesand-targeting-by-big-tobacco-and-alcohol/</u>
- ⁴⁶ Witzig, R. (1996). The medicalization of race: Scientific legitimization of a flawed social construct. *Annals of Internal Medicine*, 125(8), 675-679. <u>https://doi.org/10.7326/0003-4819-125-8-199610150-00008</u>

- ⁴⁷ U. S. Census Bureau. (2017). Race & ethnicity. https://www.cosb.us/home/showpublisheddocument/5935/637356700118370000#:~:text=The%20 Census%20Bureau%20defines%20race,Islander%2C%20or%20some%20other%20race
- ⁴⁸ Caetano, R., & McGrath, C. (2005). Driving under the influence (DUI) among ethnic groups. *Accident Analysis and Prevention*, 37(2), 217-224. <u>https://doi.org/10.1016/j.aap.2004.07.004</u>
- ⁴⁹ Kagawa, R. M. C., McCort, C. D., Schleimer, J., Pear, V. A., Charbonneau, A., Buggs, S. A. L., Wintemute, G. J., & Laqueur, H. S. (2021). Racial bias and DUI enforcement: Comparing conviction rates with frequency of behavior. *Criminology* & *Public Policy*, 20(4), 645-663. <u>https://doi. org/10.1111/1745-9133.12558</u>
- ⁵⁰ LaVeist, T. A., & Wallace Jr, J. M. (2000). Health risk and inequitable distribution of liquor stores in African American neighborhood. *Social Science & Medicine*, 51(4), 613-617. <u>https://doi.org/10.1016/</u> <u>s0277-9536(00)00004-6</u>
- ⁵¹ Mack, R. (1997). Bringing down the walls of state pre-emption: California cities fight for local control of alcohol outlets. *African-American Law & Policy*, *3*, 295. <u>https://doi.org/10.15779/Z38KC95</u>
- ⁵² Espey, D. K., Jim, M. A., Cobb, N., Bartholomew, M., Becker, T., Haverkamp, D., & Plescia, M. (2014). Leading causes of death and all-cause mortality in American Indians and Alaska Natives. *American Journal of Public Health*, *104*(S3), S303-S311. <u>https://doi.org/10.2105/</u> <u>AJPH.2013.301798</u>
- ⁵³ Brave Heart, M. Y. H., Chase, J., Elkins, J., & Altschul, D. B. (2011). Historical trauma among indigenous peoples of the Americas: Concepts, research, and clinical considerations. *Journal of Psychoactive Drugs*, 43(4), 282-290. <u>https://doi.org/ 10.1080/02791072.2011.628913</u>
- ⁵⁴ Duran, E., & Duran, B. (1995). Native American Postcolonial Psychology. SUNY Press.
- ⁵⁵ Mancall, P. C. (1997). *Deadly medicine: Indians and alcohol in early America*. Cornell University Press.
- ⁵⁶ Spillane, S., Shiels, M. S., Best, A. F., Haozous, E. A., Withrow, D. R., Chen, Y., Berrington de González, A., & Freedman, N. D. (2020). Trends in alcohol-induced deaths in the United States, 2000– 2016. *JAMA Network Open*, 3(2), e1921451. <u>https:// doi.org/10.1001/jamanetworkopen.2019.21451</u>
- ⁵⁷ Manson, S. M. (2020). Alcohol-induced deaths among American Indian and Alaska Native individuals -"Drinking was what I and others just did". *JAMA Network Open*, 3(2), e1921391. <u>https:// doi.org/10.1001/jamanetworkopen.2019.21391</u>

- ⁵⁸ Alaniz, M. L., & Wilkes, C. (1995). Reinterpreting Latino culture in the commodity form: The case of alcohol advertising in the Mexican American community. *Hispanic Journal of Behavioral Sciences*, 17(4), 430-451. <u>https://doi.org/10.1177/07399863950174002</u>
- ⁵⁹ Altman, D. G., Schooler, C., & Basil, M. D. (1991). Alcohol and cigarette advertising on billboards. *Health Education Research*, 6(4), 487-490. <u>https://doi.org/10.1093/her/6.4.487</u>
- ⁶⁰ McKee, P., Jones-Webb, R., Hannan, P., & Pham, L. (2011). Malt liquor marketing in inner cities: The role of neighborhood racial composition. *Journal of Ethnicity in Substance Abuse*, 10(1), 24-38. <u>https:// doi.org/10.1080/15332640.2011.547793</u>
- ⁶¹ Jones-Webb, R., McKee, P., Hannan, P., Wall, M., Pham, L., Erickson, D., & Wagenaar, A. (2008). Alcohol and malt liquor availability and promotion and homicide in inner cities. *Substance Use & Misuse*, 43(2), 159-177. <u>https://doi.org/10.1080/10826080701690557</u>
- ⁶² Zapolski, T. C., Baldwin, P., Banks, D. E., & Stump, T. E. (2017). Does a crossover age effect exist for African American and Hispanic binge drinkers? Findings from the 2010 to 2013 National Study on Drug Use and Health. *Alcoholism: Clinical and Experimental Research*, *41*(6), 1129-1136. <u>https:// doi.org/10.1111/acer.13380</u>
- ⁶³ Herd, D., & Grube, J. (1993). Drinking contexts and drinking problems among Black and White women. *Addiction*, 88(8), 1101-1110. <u>https://doi.org/10.1111/j.1360-0443.1993.tb02129.x</u>
- ⁶⁴ Mulia, N., Ye, Y., Greenfield, T. K., & Zemore, S. E. (2009). Disparities in alcohol-related problems among White, Black, and Hispanic Americans. *Alcoholism: Clinical and Experimental Research*, *33*(4), 654-662. <u>https://doi.org/10.1111/j.1530-0277.2008.00880.x</u>
- ⁶⁵ Collins, S. E. (2016). Associations between socioeconomic factors and alcohol outcomes. *Alcohol Research: Current Reviews*, 38(1), 83-94. <u>https://</u> www.ncbi.nlm.nih.gov/pmc/articles/PMC4872618/
- ⁶⁶ Cerdá, M., Johnson-Lawrence, V. D., & Galea, S. (2011). Lifetime income patterns and alcohol consumption: Investigating the association between long- and short-term income trajectories and drinking. *Social Science & Medicine*, 73(8), 1178-1185. <u>https:// doi.org/10.1016/j.socscimed.2011.07.025</u>
- ⁶⁷ Centers for Disease Control and Prevention. (2012). Vital signs: Binge drinking prevalence, frequency, and intensity among adults - United States, 2010. *Morbidity and Mortality Weekly Report (MMWR)*, 61(1), 14-19. <u>https://www.cdc.gov/mmwr/preview/</u><u>mmwrhtml/mm6101a4.htm</u>

- ⁶⁸ Patrick, M. E., Wightman, P., Schoeni, R. F., & Schulenberg, J. E. (2012). Socioeconomic status and substance use among young adults: A comparison across constructs and drugs. *Journal of Studies on Alcohol and Drugs*, *73*(5), 772-782. <u>https://doi. org/10.15288/jsad.2012.73.772</u>
- ⁶⁹ Assari, S., & Lankarani, M. M. (2016). Education and alcohol consumption among older Americans: Black–White differences. *Frontiers in Public Health*, 4, 67. <u>https://doi.org/10.3389/fpubh.2016.00067</u>
- ⁷⁰ Mair, C., Sumetsky, N., Gruenewald, P. J., & Lee, J. P. (2020). Microecological relationships between area income, off-premise alcohol outlet density, drinking patterns, and alcohol use disorders: The East Bay Neighborhoods Study. *Alcoholism, Clinical and Experimental Research, 44*(8), 1636-1645. <u>https://doi.org/10.1111/acer.14387</u>
- ⁷¹ World Health Organization. (2019). *Global status* report on alcohol and health 2018. <u>https://www.</u> who.int/publications/i/item/9789241565639
- ⁷² Rehm, J., Rovira, P., Llamosas-Falcón, L., & Shield, K. D. (2021). Dose–response relationships between levels of alcohol use and risks of mortality or disease, for all people, by age, sex, and specific risk factors. *Nutrients*, *13*(8), 2652. <u>https://doi. org/10.3390/nu13082652</u>
- ⁷³ Mokdad, A. H., Ballestros, K., Echko, M., Glenn, S., Olsen, H. E., Mullany, E., Lee, A., Khan, A. R., Ahmadi, A., & Ferrari, A. J. (2018). The state of US health, 1990–2016: Burden of diseases, injuries, and risk factors among US states. *JAMA*, *319*(14), 1444-1472. https://doi.org/10.1001/jama.2018.0158
- ⁷⁴ Greenfield, T. K., Karriker-Jaffe, K. J., Kaplan, L. M., Kerr, W. C., & Wilsnack, S. C. (2015). Trends in alcohol's harms to others (AHTO) and co-occurrence of family-related AHTO: The four US National Alcohol Surveys, 2000–2015. *Substance Abuse: Research and Treatment, 9*(Suppl 2), 23-31. https://doi.org/10.4137%2FSART.S23505
- ⁷⁵ Sudhinaraset, M., Wigglesworth, C., & Takeuchi, D. T. (2016). Social and cultural contexts of alcohol use: Influences in a social–ecological framework. *Alcohol Research: Current Reviews*, 38(1), 35-45. <u>https://www.ncbi.nlm.nih.gov/pmc/articles/</u> PMC4872611/
- ⁷⁶ Klingemann, H., & World Health Organization. (2001). Alcohol and its social consequences - the forgotten dimension by Harald Klingemann. <u>https://</u> apps.who.int/iris/handle/10665/108554
- ⁷⁷ National Cancer Institute. (2021). Alcohol and cancer risk. National Institutes of Health. <u>https://</u> www.cancer.gov/about-cancer/causes-prevention/ risk/alcohol/alcohol-fact-sheet

- ⁷⁸ Van Heertum, K., & Rossi, B. (2017). Alcohol and fertility: How much is too much? *Fertility research and practice*, 3(1), 1-7. <u>https://doi.org/10.1186/</u> <u>s40738-017-0037-x</u>
- ⁷⁹ Nayak, M. B., Patterson, D., Wilsnack, S. C., Karriker-Jaffe, K. J., & Greenfield, T. K. (2019). Alcohol's secondhand harms in the United States: New data on prevalence and risk factors. *Journal* of Studies on Alcohol and Drugs, 80(3), 273-281. <u>https://doi.org/10.15288/jsad.2019.80.273</u>
- ⁸⁰ Centers for Disease Control and Prevention. (2019). Excessive drinking is draining the economy. <u>https://www.cdc.gov/alcohol/features/excessive-drinking.</u> <u>html</u>
- ⁸¹ Gruenewald, P. J. (2011). Regulating availability: How access to alcohol affects drinking and problems in youth and adults. *Alcohol Research and Health*, *34*(2), 248-256. <u>https://www.ncbi.nlm.nih.gov/pmc/ articles/PMC3860569/</u>
- ⁸² Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin*, *112*(1), 64-105. https://doi.org/10.1037/0033-2909.112.1.64
- ⁸³ Substance Abuse and Mental Health Services Administration. (2019). *Risk and protective factors*. <u>https://www.samhsa.gov/sites/default/</u> <u>files/20190718-samhsa-risk-protective-factors.pdf</u>
- ⁸⁴ Babor, T., Caetano, R., Casswell, S., Edwards, G., Giesbrecht, N., Graham, K., Grube, J. W., Hill, L., Holder, H., Homel, R., Livingston, M., Österberg, E., Rehm, J., Room, R., & Rossow, I. (2010). *Alcohol: No ordinary commodity: Research and public policy* (2nd ed.). Oxford University Press. <u>https://doi.org/10.1093/acprof:oso/9780199551149.001.0001</u>
- ⁸⁵ Elder, R. W., Lawrence, B., Ferguson, A., Naimi, T. S., Brewer, R. D., Chattopadhyay, S. K., Toomey, T. L., Fielding, J. E., & Task Force on Community Preventive Services. (2010). The effectiveness of tax policy interventions for reducing excessive alcohol consumption and related harms. *American Journal of Preventive Medicine*, *38*(2), 217-229. <u>https://doi.org/10.1016/j.amepre.2009.11.005</u>
- ⁸⁶ Campbell, C. A., Hahn, R. A., Elder, R., Brewer, R., Chattopadhyay, S., Fielding, J., Naimi, T. S., Toomey, T., Lawrence, B., & Middleton, J. C. (2009). The effectiveness of limiting alcohol outlet density as a means of reducing excessive alcohol consumption and alcohol-related harms. *American Journal of Preventive Medicine*, 37(6), 556-569. <u>https://doi.org/10.1016/j.amepre.2009.09.028</u>

- ⁸⁷ Hahn, R. A., Kuzara, J. L., Elder, R., Brewer, R., Chattopadhyay, S., Fielding, J., Naimi, T. S., Toomey, T., Middleton, J. C., & Lawrence, B. (2010). Effectiveness of policies restricting hours of alcohol sales in preventing excessive alcohol consumption and related harms. *American Journal* of Preventive Medicine, 39(6), 590-604. <u>https://doi.org/10.1016/j.amepre.2010.09.016</u>
- ⁸⁸ Hahn, R. A., Middleton, J. C., Elder, R., Brewer, R., Fielding, J., Naimi, T. S., Toomey, T. L., Chattopadhyay, S., Lawrence, B., & Campbell, C. A. (2012). Effects of alcohol retail privatization on excessive alcohol consumption and related harms: A community guide systematic review. *American Journal of Preventive Medicine*, 42(4), 418-427. https://doi.org/10.1016/j.amepre.2012.01.002
- ⁸⁹ Thomas, F. D., Blomberg, R., Darrah, J., Graham, L. A., Southcott, T., Dennert, R., Taylor, E., Treffers, R., Tippetts, S., & McKnight, S. (2022). *Evaluation of Utah's. 05 BAC Per Se Law.* National Highway Traffic Safety Administration. <u>https://doi.org/10.21949/1526050</u>
- ⁹⁰ Xu, X., & Chaloupka, F. J. (2011). The effects of prices on alcohol use and its consequences. *Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism, 34*(2), 236-245. <u>https://www.ncbi.nlm.nih.gov/pmc/articles/</u> <u>PMC3860576/</u>
- ⁹¹ Cleveland, M. J., Feinberg, M. E., Bontempo, D. E., & Greenberg, M. T. (2008). The role of risk and protective factors in substance use across adolescence. *Journal of Adolescent Health*, 43(2), 157-164. <u>https://doi.org/10.1016/j.jadohealth.2008.01.015</u>
- ⁹² Chartier, K., & Caetano, R. (2010). Ethnicity and health disparities in alcohol research. *Alcohol Research & Health*, 33(1-2), 152. <u>https://www.ncbi.</u> <u>nlm.nih.gov/pmc/articles/PMC3887493/</u>
- ⁹³ McEwen, B. S. (2004). Protection and damage from acute and chronic stress: Allostasis and allostatic overload and relevance to the pathophysiology of psychiatric disorders. *Annals of the New York Academy of Sciences, 1032*(1), 1-7. <u>https://doi.org/10.1196/annals.1314.001</u>
- ⁹⁴ Budge, S. L., Thai, J. L., Tebbe, E. A., & Howard, K. A. (2016). The intersection of race, sexual orientation, socioeconomic status, trans identity, and mental health outcomes. *The Counseling Psychologist, 44*(7), 1025-1049. <u>https://doi.org/10.1177/0011000015609046</u>
- ⁹⁵ O'Connell, M. E., Boat, T., & Warner, K. E. (2009). Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities. The National Academies Press.

- ⁹⁶ U.S. Department of Health and Human Services, Office of the Surgeon General. (2016). Facing addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health. <u>https://www.ncbi.</u> nlm.nih.gov/books/NBK424857/
- ⁹⁷ Toumbourou, J. W., Stockwell, T., Neighbors, C., Marlatt, G., Sturge, J., & Rehm, J. (2007). Interventions to reduce harm associated with adolescent substance use. *The Lancet*, 369(9570), 1391-1401. <u>https://doi.org/10.1016/S0140-6736(07)60369-9</u>
- ⁹⁸ Babor, T. F., Robaina, K., & Jernigan, D. (2015). The influence of industry actions on the availability of alcoholic beverages in the African region. *Addiction*, *110*(4), 561-571. <u>https://doi.org/10.1111/add.12832</u>
- ⁹⁹ National Institute on Alcohol Abuse and Alcoholism. What is a standard drink? <u>https://www.niaaa.nih.gov/alcohols-effects-health/overview-alcohol-consumption/what-standard-drink</u>
- ¹⁰⁰ Berkowitz, A. D. (2003). Applications of social norms theory to other health and social justice issues. In H. W. Perkins (Ed.), *The social norms approach to preventing school and college age substance abuse: A handbook for educators, counselors, and clinicians* (pp. 259-279). Jossey-Bass/Wiley.
- ¹⁰¹ Wilkinson, C., Livingston, M., & Room, R. (2016). Impacts of changes to trading hours of liquor licences on alcohol-related harm: A systematic review 2005–2015. *Public Health Research Practice, 26*(4), 2641644. <u>https://doi.org/10.17061/</u> phrp2641644
- ¹⁰² Sherk, A., Stockwell, T., Chikritzhs, T., Andréasson, S., Angus, C., Gripenberg, J., Holder, H., Holmes, J., Mäkelä, P., & Mills, M. (2018). Alcohol consumption and the physical availability of takeaway alcohol: Systematic reviews and meta-analyses of the days and hours of sale and outlet density. *Journal of Studies on Alcohol and Drugs*, *79*(1), 58-67. <u>https://doi.org/10.15288/jsad.2018.79.58</u>
- ¹⁰³ Trangenstein, P. J., Subbaraman, M. S., Greenfield, T. K., Mulia, N., Kerr, W. C., & Karriker-Jaffe, K. J. (2020). Association between state-level alcohol availability and taxation policies on the prevalence of alcohol-related harms to persons other than the drinker in the USA, 2000–2015. *Drug and Alcohol Review*, 39(3), 255-266. <u>https://doi.org/10.1111/ dar.13041</u>
- ¹⁰⁴ Jernigan, D. H., Sparks, M., Yang, E., & Schwartz, R. (2013). Using public health and community partnerships to reduce density of alcohol outlets. *Preventing Chronic Disease*, 10, E53. <u>https://doi.org/10.5888/pcd10.120090</u>

- ¹⁰⁵ ChangeLab Solutions. (2019). Addressing alcohol outlet density at the local level. <u>http://alcohol-psr.</u> <u>changelabsolutions.org/alcohol-psr-faqs/local-</u> <u>authority-to-regulate-the-density-of-alcohol-outlets-faq/</u> addressing-alcohol-outlet-density-at-the-local-level/
- ¹⁰⁶ ChangeLab Solutions. (2019). Legal aspects of state preemption of local authority to regulate outlet density. <u>http://alcohol-psr.changelabsolutions.org/alcohol-psr-faqs/local-authority-to-regulate-the-density-of-alcohol-outlets-faq/legal-aspects-of-state-preemption-of-local-authority-to-regulate-outlet-density/</u>
- ¹⁰⁷ Grubesic, T. H., & Pridemore, W. A. (2011). Alcohol outlets and clusters of violence. *International Journal of Health Geographics*, 10, 30. <u>https://doi.org/10.1186/1476-072x-10-30</u>
- ¹⁰⁸ Zhang, X., Hatcher, B., Clarkson, L., Holt, J., Bagchi, S., Kanny, D., & Brewer, R. D. (2015). Changes in density of on-premises alcohol outlets and impact on violent crime, Atlanta, Georgia, 1997–2007. *Preventing Chronic Disease*, *12*, 140317. http://dx.doi.org/10.5888/pcd12.140317
- ¹⁰⁹ Scribner, R. A., MacKinnon, D. P., & Dwyer, J. H. (1995). The risk of assaultive violence and alcohol availability in Los Angeles County. *American Journal of Public Health*, 85(3), 335-340. <u>https://doi.org/10.2105/ajph.85.3.335</u>
- ¹¹⁰ Trangenstein, P. J., Sadler, R. C., Morrison, C. N., & Jernigan, D. H. (2020). Looking back and moving forward: The evolution and potential opportunities for the future of alcohol density meansurement. *Addiction Research & Theory*, *29*(2), 117-128. https://doi.org/10.1080%2F16066359.2020.1751128
- ¹¹¹ Popova, S., Giesbrecht, N., Bekmuradov, D., & Patra, J. (2009). Hours and days of sale and density of alcohol outlets: Impacts on alcohol consumption and damage: A systematic review. *Alcohol and Alcoholism, 44*(5), 500-516. <u>https://doi.org/10.1093/</u> <u>alcalc/agp054</u>
- ¹¹² Ahern, J., Colson, K. E., Margerson-Zilko, C., Hubbard, A., & Galea, S. (2016). Predicting the population health impacts of community interventions: The case of alcohol outlets and binge drinking. *American Journal of Public Health*, *106*(11), 1938-1943. <u>https://doi.org/10.2105/</u> <u>ajph.2016.303425</u>
- ¹¹³ Brenner, A. B., Borrell, L. N., Barrientos-Gutierrez, T., & Diez Roux, A. V. (2015). Longitudinal associations of neighborhood socioeconomic characteristics and alcohol availability on drinking: Results from the Multi-Ethnic Study of Atherosclerosis (MESA). *Social Science & Medicine, 145*, 17-25. <u>https://doi.org/10.3109/10826</u> 084.2015.1027927

- ¹¹⁴ Morrison, C., Smith, K., Gruenewald, P. J., Ponicki, W. R., Lee, J. P., & Cameron, P. (2016). Relating off-premises alcohol outlet density to intentional and unintentional injuries. *Addiction (Abingdon, England)*, *111*(1), 56-64. <u>https://doi.org/10.1111/ add.13098</u>
- ¹¹⁵ Trangenstein, P. J., Eck, R. H., Lu, Y., Webster, D., Jennings, J. M., Latkin, C., Milam, A. J., Furr-Holden, D., & Jernigan, D. H. (2020). The violence prevention potential of reducing alcohol outlet access in Baltimore, Maryland. *Journal of Studies* on Alcohol and Drugs, 81(1), 24-33. <u>https://doi.org/10.15288/jsad.2020.81.24</u>
- ¹¹⁶ Berke, E. M., Tanski, S. E., Demidenko, E., Alford-Teaster, J., Shi, X., & Sargent, J. D. (2010). Alcohol retail density and demographic predictors of health disparities: A geographic analysis. *American Journal* of Public Health, 100(10), 1967-1971. <u>https://doi.org/10.2105/AJPH.2009.170464</u>
- ¹¹⁷ Romley, J. A., Cohen, D., Ringel, J., & Sturm, R. (2007). Alcohol and environmental justice: The density of liquor stores and bars in urban neighborhoods in the United States. *Journal of Studies on Alcohol and Drugs*, 68(1), 48-55. <u>https://doi.org/10.15288/jsad.2007.68.48</u>
- ¹¹⁸ Pollack, C. E., Cubbin, C., Ahn, D., & Winkleby, M. (2005). Neighbourhood deprivation and alcohol consumption: Does the availability of alcohol play a role? *International Journal of Epidemiology*, *34*(4), 772-780. <u>https://doi.org/10.1093/ije/dyi026</u>
- ¹¹⁹ Subbaraman, M. S., Mulia, N., Kerr, W. C., Patterson, D., Karriker-Jaffe, K. J., & Greenfield, T. K. (2020). Relationships between US state alcohol policies and alcohol outcomes: Differences by gender and race/ethnicity. *Addiction*, *115*(7), 1285-1294. https://doi.org/10.1111/add.14937
- ¹²⁰ Lee, J. P., Ponicki, W., Mair, C., Gruenewald, P., & Ghanem, L. (2020). What explains the concentration of off-premise alcohol outlets in Black neighborhoods? *SSM-Population Health*, *12*, 100669. <u>https://doi.org/10.1016/j. ssmph.2020.100669</u>
- ¹²¹ Fliss, M. D. (2021). Measuring and mapping alcohol outlet environment density, clusters, and racial and ethnic disparities in Durham, North Carolina, 2017. *Preventing Chronic Disease, 18*, E89. <u>https://doi. org/10.5888/pcd18.210127</u>
- ¹²² Xu, Y., Yu, Q., Scribner, R., Theall, K., Scribner, S., & Simonsen, N. (2012). Multilevel spatiotemporal change-point models for evaluating the effect of an alcohol outlet control policy on changes in neighborhood assaultive violence rates. *Spatial* and Spatio-temporal Epidemiology., 3(2), 121-128. https://doi.org/10.1016/j.sste.2012.04.005

- ¹²³ Elder, R. W., Lawrence, B. A., Janes, G., Brewer, R. D., Toomey, T. L., Hingson, R. W., Naimi, T. S., Wing, S. G., & Fielding, J. (2007). Enhanced enforcement of laws prohibiting sale of alcohol to minors: Systematic review of effectiveness for reducing sales and underage drinking. *Transportation Research Circular, 2007*(E-C123), 181-188. <u>https://</u> www.trb.org/Publications/Blurbs/159420.aspx
- ¹²⁴ Wagenaar, A. C., & Toomey, T. L. (2002). Effects of minimum drinking age laws: Review and analyses of the literature from 1960 to 2000. *Journal of Studies* on Alcohol, Supplement(14), 206-225. <u>https://doi.org/10.15288/jsas.2002.s14.206</u>
- ¹²⁵ DeJong, W., & Blanchette, J. (2014). Case closed: Research evidence on the positive public health impact of the age 21 minimum legal drinking age in the United States. *Journal of Studies on Alcohol and Drugs*, 75(Suppl 17), 108-115. <u>https://doi.org/10.15288/jsads.2014.s17.108</u>
- ¹²⁶ McCartt, A. T., Hellinga, L. A., & Kirley, B. B. (2010). The effects of minimum legal drinking age 21 laws on alcohol-related driving in the United States. *Journal of Safety Research*, 41(2), 173-181. <u>https://doi.org/10.1016/j.jsr.2010.01.002</u>
- ¹²⁷ Carpenter, C., & Dobkin, C. (2011). The minimum legal drinking age and public health. *Journal of Economic Perspectives*, 25(2), 133-156. <u>https://doi.org/10.1257/jep.25.2.133</u>
- ¹²⁸ Subbaraman, M. S., & Kerr, W. C. (2013). State panel estimates of the effects of the minimum legal drinking age on alcohol consumption for 1950 to 2002. *Alcoholism: Clinical and Experimental Research*, 37(Suppl 1), E291-296. <u>https://doi. org/10.1111/j.1530-0277.2012.01929.x</u>
- ¹²⁹ Serdula, M. K., Brewer, R. D., Gillespie, C., Denny, C. H., & Mokdad, A. (2004). Trends in alcohol use and binge drinking, 1985–1999: Results of a multi-state survey. *American Journal of Preventive Medicine*, 26(4), 294-298. <u>https://doi.org/10.1016/j.</u> <u>amepre.2003.12.017</u>
- ¹³⁰ Norberg, K. E., Bierut, L. J., & Grucza, R. A. (2009). Long-term effects of minimum drinking age laws on past-year alcohol and drug use disorders. *Alcoholism: Clinical and Experimental Research*, 33(12), 2180-2190. <u>https://doi.org/10.1111/j.1530-0277.2009.01056.x</u>
- ¹³¹ National Highway Traffic Safety Administration. (2019). *Traffic safety facts 2017 data: Young drivers*. Department of Transportation. <u>https://crashstats.</u> <u>nhtsa.dot.gov/Api/Public/Publication/812753</u>

- ¹³² Community Preventive Services Task Force.
 (2006). Alcohol—excessive consumption: Enhanced enforcement of laws prohibiting sales to minors. <u>https://www.thecommunityguide.org/</u> findings/alcohol-excessive-consumption-enhancedenforcement-laws-prohibiting-sales-minors
- ¹³³ World Health Organization. (2009). Evidence for the effectiveness and cost-effectiveness of interventions to reduce alcohol-related harm. <u>https://www.euro.</u>
 <u>who.int/___data/assets/pdf__file/0020/43319/E92823.</u>
 <u>pdf</u>
- ¹³⁴ Yörük, B. K. (2014). Legalization of Sunday alcohol sales and alcohol consumption in the United States. *Addiction*, 109(1), 55-61. <u>https://doi.org/10.1111/</u> add.12358
- ¹³⁵ Stehr, M. (2007). The effect of Sunday sales bans and excise taxes on drinking and cross—border shopping for alcoholic beverages. *National Tax Journal*, 60(1), 85-105. <u>https://www.jstor.org/ stable/41790375</u>
- ¹³⁶ McMillan, G. P., & Lapham, S. (2006). Effectiveness of bans and laws in reducing traffic deaths: Legalized Sunday packaged alcohol sales and alcohol-related traffic crashes and crash fatalities in New Mexico. *American Journal of Public Health*, *96*(11), 1944-1948. <u>https://doi.org/10.2105/AJPH.2005.069153</u>
- ¹³⁷ Han, S., Branas, C. C., & MacDonald, J. M. (2016). The effect of a Sunday liquor-sales ban repeal on crime: A triple-difference analysis. *Alcoholism: Clinical and Experimental Research*, 40(5), 1111-1121. <u>https://doi.org/10.1111/acer.13047</u>
- ¹³⁸ Yörük, B. K., & Lee, J. (2018). Did legalization of Sunday alcohol sales increase crime in the United States? Evidence from seven states. *Journal of Studies on Alcohol and Drugs*, 79(6), 816-825. <u>https://doi.org/10.15288/jsad.2018.79.816</u>
- ¹³⁹ Heaton, P. (2012). Sunday liquor laws and crime. Journal of Public Economics, 96(1-2), 42-52. <u>https://doi.org/10.1016/j.jpubeco.2011.08.002</u>
- ¹⁴⁰ Community Preventive Services Task Force.
 (2014). Preventing excessive alcohol consumption: Privatization of retail alcohol sales. <u>https://www.</u> <u>thecommunityguide.org/sites/default/files/assets/</u> Alcohol-Privatization-of-Retail-Alcohol-Sales.pdf
- ¹⁴¹ The Community Guide. (n.d.). *Task force* recommends increasing alcohol taxes to prevent excessive alcohol use and other harms. Department of Health and Human Services. <u>https://www.</u> <u>thecommunityguide.org/content/increased-alcoholtaxes-can-prevent-excessive-alcohol-use-and-otherharms</u>

- ¹⁴² Xuan, Z., Chaloupka, F. J., Blanchette, J. G., Nguyen, T. H., Heeren, T. C., Nelson, T. F., & Naimi, T. S. (2015). The relationship between alcohol taxes and binge drinking: Evaluating new tax measures incorporating multiple tax and beverage types. *Addiction*, *110*(3), 441-450. <u>https://doi.org/10.1111/add.12818</u>
- ¹⁴³ Naimi, T. S., Blanchette, J. G., Xuan, Z., & Chaloupka, F. J. (2018). Erosion of state alcohol excise taxes in the United States. *Journal of Studies* on Alcohol and Drugs, 79(1), 43-48. <u>https://doi. org/10.15288/jsad.2018.79.43</u>
- Gehrsitz, M., Saffer, H., & Grossman, M. (2021). The effect of changes in alcohol tax differentials on alcohol consumption. *Journal of Public Economics, 204*, 104520. <u>https://doi.org/10.1016/j.jpubeco.2021.104520</u>
- ¹⁴⁵ Wagenaar, A. C., Livingston, M. D., & Staras, S. S. (2015). Effects of a 2009 Illinois alcohol tax increase on fatal motor vehicle crashes. *American Journal* of Public Health, 105(9), 1880-1885. <u>https://doi.org/10.2105/ajph.2014.302428</u>
- Staras, S. A. S., Livingston, M. D., Christou, A. M., Jernigan, D. H., & Wagenaar, A. C. (2014). Heterogeneous population effects of an alcohol excise tax increase on sexually transmitted infections morbidity. *Addiction (Abingdon, England), 109*(6), 904-912. https://doi.org/10.1111/add.12493
- ¹⁴⁷ An, R., & Sturm, R. (2011). Does the response to alcohol taxes differ across racial/ethnic groups? Some evidence from 1984–2009 Behavioral Risk Factor Surveillance System. *Journal of Mental Health Policy and Economics, 14*(1), 13-23. <u>https://</u> www.ncbi.nlm.nih.gov/pmc/articles/PMC3089007/
- ¹⁴⁸ Wagenaar, A. C., Tobler, A. L., & Komro, K. A. (2010). Effects of alcohol tax and price policies on morbidity and mortality: A systematic review. *American Journal of Public Health*, *100*(11), 2270-2278. https://doi.org/10.2105/AJPH.2009.186007
- ¹⁴⁹ Daley, J. I., Stahre, M. A., Chaloupka, F. J., & Naimi, T. S. (2012). The impact of a 25-cent-perdrink alcohol tax increase. *American Journal of Preventive Medicine*, 42(4), 382-389. <u>https://doi. org/10.1016/j.amepre.2011.12.008</u>
- ¹⁵⁰ Vandenberg, B., & Sharma, A. (2016). Are alcohol taxation and pricing policies regressive? Productlevel effects of a specific tax and a minimum unit price for alcohol. *Alcohol and Alcoholism*, *51*(4), 493-502. <u>https://doi.org/10.1093/alcalc/agv133</u>
- ¹⁵¹ Esser, M. B., Waters, H., Smart, M., & Jernigan, D. H. (2016). Impact of Maryland's 2011 alcohol sales tax increase on alcoholic beverage sales. *American Journal of Alcohol Abuse*, 42(4), 404-411. <u>https:// doi.org/10.3109/00952990.2016.1150485</u>

- ¹⁵² Pollack Porter, K., Frattaroli, S., & Pannu, H. (2018). Public health policy in Maryland: Lessons from recent alcohol and cigarette tax policies. The Abell Report. <u>https://abell.org/publication/publichealth-policy-in-maryland/</u>
- ¹⁵³ Lavoie, M.-C., Langenberg, P., Villaveces, A., Dischinger, P. C., Simoni-Wastila, L., Hoke, K., & Smith, G. S. (2017). Effect of Maryland's 2011 alcohol sales tax increase on alcoholpositive driving. *American Journal of Preventive Medicine*, 53(1), 17-24. <u>https://doi.org/10.1016/j.</u> <u>amepre.2016.12.011</u>
- ¹⁵⁴ Wagenaar, A. C., Maldonado-Molina, M. M., & Wagenaar, B. H. (2009). Effects of alcohol tax increases on alcohol-related disease mortality in Alaska: Time-series analyses from 1976 to 2004. *American Journal of Public Health*, 99(8), 1464– 1470. https://doi.org/10.2105/AJPH.2007.131326
- ¹⁵⁵ LeClercq, J., Bernard, S., Mucciaccio, F., & Esser, M. B. (2021). Prospective analysis of minimum pricing policies to reduce excessive alcohol use and related harms in US states. *Journal of Studies* on Alcohol and Drugs, 82(6), 710-719. <u>https://doi.org/10.15288/jsad.2021.82.710</u>
- ¹⁵⁶ Brennan, A., Purshouse, R., Taylor, K., Rafia, R., Booth, A., O'Reilly, D., Stockwell, T., Sutton, A., Wilkinson, A., & Wong, R. (2008). Modelling the potential impact of pricing and promotion policies for alcohol in England: Results from the Sheffield Alcohol Policy Model, version 2008 (1-1). Independent review of the effects of alcohol pricing and promotion: Part B. The University of Sheffield. <u>https://www. drugsandalcohol.ie/11602/1/DH_091364.pdf</u>
- ¹⁵⁷ Anderson, P., O'Donnell, A., Kaner, E., Llopis, E. J., Manthey, J., & Rehm, J. (2021). Impact of minimum unit pricing on alcohol purchases in Scotland and Wales: Controlled interrupted time series analyses. *The Lancet Public Health*, 6(8), E557-E565. <u>https://</u> doi.org/10.1016/S2468-2667(21)00052-9
- ¹⁵⁸ Stockwell, T., Zhao, J., Martin, G., Macdonald, S., Vallance, K., Treno, A., Ponicki, W., Tu, A., & Buxton, J. (2013). Minimum alcohol prices and outlet densities in British Columbia, Canada: Estimated impacts on alcohol-attributable hospital admissions. *American Journal of Public Health*, 103(11), 2014-2020. https://doi.org/10.2105/AJPH.2013.301289
- ¹⁵⁹ Zhao, J., Stockwell, T., Martin, G., Macdonald, S., Vallance, K., Treno, A., Ponicki, W. R., Tu, A., & Buxton, J. (2013). The relationship between minimum alcohol prices, outlet densities and alcohol-attributable deaths in British Columbia, 2002–09. *Addiction*, 108(6), 1059-1069. <u>https://doi.org/10.1111/add.12139</u>

- ¹⁶⁰ Stockwell, T., Zhao, J., Marzell, M., Gruenewald, P. J., Macdonald, S., Ponicki, W. R., & Martin, G. (2015). Relationships between minimum alcohol pricing and crime during the partial privatization of a Canadian government alcohol monopoly. *Journal* of Studies on Alcohol and Drugs, 76(4), 628-634. https://doi.org/10.15288/jsad.2015.76.628
- ¹⁶¹ Zhao, J., & Stockwell, T. (2017). The impacts of minimum alcohol pricing on alcohol attributable morbidity in regions of British Colombia, Canada with low, medium and high mean family income. *Addiction*, *112*(11), 1942-1951. <u>https://doi.org/10.1111/add.13902</u>
- ¹⁶² Holmes, J., Meng, Y., Meier, P. S., Brennan, A., Angus, C., Campbell-Burton, A., Guo, Y., Hill-McManus, D., & Purshouse, R. C. (2014). Effects of minimum unit pricing for alcohol on different income and socioeconomic groups: A modelling study. *The Lancet, 383*(9929), 1655-1664. <u>https:// doi.org/10.1016/S0140-6736(13)62417-4</u>
- ¹⁶³ League of Oregon Cities. (2021). OLCC increases minimum pricing. <u>https://www.orcities.org/</u> resources/communications/bulletin/olcc-increasesminimum-pricing#:~:text=The%20Oregon%20 Liquor%20Control%20Commission,sold%20for%20 less%20than%20%248.95.
- ¹⁶⁴ McClure, A. C., Stoolmiller, M., Tanski, S. E., Engels, R. C., & Sargent, J. D. (2013). Alcohol marketing receptivity, marketing-specific cognitions, and underage binge drinking. *Alcoholism: Clinical and Experimental Research*, 37, E404-E413. <u>https:// doi.org/10.1111/j.1530-0277.2012.01932.x</u>
- ¹⁶⁵ Hackbarth, D. P., Schnopp-Wyatt, D., Katz, D., Williams, J., Silvestri, B., & Pfleger, M. (2001).
 Collaborative research and action to control the geographic placement of outdoor advertising of alcohol and tobacco products in Chicago. *Public Health Reports*, *116*(6), 558-567. <u>https://doi.org/10.1093/phr/116.6.558</u>
- ¹⁶⁶ Noel, J. K., Babor, T. F., & Robaina, K. (2017). Industry self-regulation of alcohol marketing: A systematic review of content and exposure research. *Addiction, 112*(Suppl 1), 28-50. <u>https://doi.org/10.1111/add.13410</u>
- ¹⁶⁷ Carah, N., & Brodmerkel, S. (2021). Alcohol marketing in the era of digital media platforms. *Journal of Studies on Alcohol and Drugs*, *82*(1), 18-27. <u>https://doi.org/10.15288/jsad.2021.82.18</u>
- ¹⁶⁸ Snyder, L. B., Milici, F. F., Slater, M., Sun, H., & Strizhakova, Y. (2006). Effects of alcohol advertising exposure on drinking among youth. *Archives of Pediatrics & Adolescent Medicine*, *160*(1), 18-24. https://doi.org/10.1001/archpedi.160.1.18

- ¹⁶⁹ Anderson, P. (2007). Commercial communications and alcohol. Utrecht: National Foundation for Alcohol Prevention. <u>http://www.stap.nl/content/</u> <u>bestanden/elsa 4 report on impact.pdf</u>
- ¹⁷⁰ Davis, J. P., Pedersen, E. R., Tucker, J. S., Dunbar, M. S., Seelam, R., Shih, R., & D'Amico, E. J. (2019). Long-term associations between substance use-related media exposure, descriptive norms, and alcohol use from adolescence to young adulthood. *Journal of Youth and Adolescence*, 48(7), 1311-1326. https://doi.org/10.1007/s10964-019-01024-z
- ¹⁷¹ Gentry, E., Poirier, K., Wilkinson, T., Nhean, S., Nyborn, J., & Siegel, M. (2011). Alcohol advertising at Boston subway stations: An assessment of exposure by race and socioeconomic status. *American Journal of Public Health*, 101(10), 1936-1941. <u>https://doi.org/10.2105/AJPH.2011.300159</u>
- ¹⁷² Collins, R. L., Martino, S. C., Kovalchik, S. A., Becker, K. M., Shadel, W. G., & D'Amico, E. J. (2016). Alcohol advertising exposure among middle school-age youth: An assessment across all media and venues. *Journal of Studies on Alcohol and Drugs*, 77(3), 384-392. <u>https://doi.org/10.15288/</u> jsad.2016.77.384
- ¹⁷³ Anderson, P. (2009). Is it time to ban alcohol advertising? *Clinical Medicine*, *9*(2), 121-124. https://doi.org/10.7861%2Fclinmedicine.9-2-121
- ¹⁷⁴ Rossow, I. (2021). The alcohol advertising ban in Norway: Effects on recorded alcohol sales. *Drug* and Alcohol Review, 40(7), 1392-1395. <u>https://doi.org/10.1111/dar.13289</u>
- ¹⁷⁵ Rammohan, V., Hahn, R. A., Elder, R., Brewer, R., Fielding, J., Naimi, T. S., Toomey, T. L., Chattopadhyay, S. K., Zometa, C., & Task Force on Community Preventive Services. (2011). Effects of dram shop liability and enhanced overservice law enforcement initiatives on excessive alcohol consumption and related harms: Two community guide systematic reviews. *American Journal of Preventive Medicine*, *41*(3), 334-343. <u>https://doi. org/10.1016/j.amepre.2011.06.027</u>
- ¹⁷⁶ The Community Guide. (2010). Alcohol excessive consumption: Dram shop liability. <u>https://www.</u> <u>thecommunityguide.org/findings/alcohol-excessiveconsumption-dram-shop-liability</u>
- ¹⁷⁷ County Health Rankings & Roadmaps. (n.d.). Dram Shop Liability Laws. <u>https://www.</u> countyhealthrankings.org/take-action-to-improvehealth/what-works-for-health/strategies/dram-shopliability-laws

- ¹⁷⁸ Wagoner, K. G., Francisco, V. T., Sparks, M., Wyrick, D., Nichols, T., & Wolfson, M. (2012). A review of social host policies focused on underage drinking parties: Suggestions for future research. *Journal of Drug Education*, 42(1), 99-117. <u>https:// doi.org/10.2190/DE.42.1.f</u>
- ¹⁷⁹ Paschall, M. J., Lipperman-Kreda, S., Grube, J. W., & Thomas, S. (2014). Relationships between social host laws and underage drinking: Findings from a study of 50 California cities. *Journal of Studies* on Alcohol and Drugs, 75(6), 901-907. <u>https://doi.org/10.15288/jsad.2014.75.901</u>
- ¹⁸⁰ Freisthler, B., Gruenewald, P. J., Treno, A. J., & Lee, J. (2003). Evaluating alcohol access and the alcohol environment in neighborhood areas. *Alcoholism: Clinical and Experimental Research*, *27*(3), 477-484. <u>https://doi.org/10.1097/01.Alc.0000057043.04199.B7</u>
- ¹⁸¹ Saltz, R. F., & Stanghetta, P. (1997). A community-wide responsible beverage service program in three communities: Early findings. *Addiction*, 92, S237-S249. <u>https://doi.org/10.1111/j.1360-0443.1997.tb02994.x</u>
- ¹⁸² Herd, D. (2011). Voices from the field: The social construction of alcohol problems in inner-city communities. *Contemporary Drug Problems*, 38(1), 7-39. <u>https://doi.org/10.1177/009145091103800102</u>
- ¹⁸³ Jernigan, D. H., & Wright, P. A. (1996). Media advocacy: Lessons from community experiences. *Journal of Public Health Policy*, *17*(3), 306-330. <u>https://doi.org/10.2307/3343268</u>
- ¹⁸⁴ Substance Abuse and Mental Health Services Administration. (2021). Alcohol regulatory systems: Integrating support for public health and safety. <u>https://pttcnetwork.org/sites/pttc/files/2021-03/</u> <u>Alcohol-Regulatory-Policy-Guide-2021.-draft-3.-</u> <u>mfs.3.5.21_508.pdf</u>
- ¹⁸⁵ Open Secrets. (2020). Industry profile: Beer, wine & liquor. <u>https://www.opensecrets.org/federal-</u> lobbying/industries/summary?cycle=2019&id=N02
- ¹⁸⁶ Babor, T. F., Robaina, K., & Noel, J. (2018). The role of the alcohol industry in policy interventions for alcohol-impaired driving. In National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice, Committee on Accelerating Progress to Reduce Alcohol-Impaired Driving Fatalities, Y. Negussie, A. Geller, & S. Teutsch (Eds.), *Getting to zero alcohol-impaired driving fatalities: A comprehensive approach to a persistent problem* (pp. 447-521). National Academies Press (US). <u>https://www.ncbi.nlm.nih.gov/books/ NBK500055/</u>

- ¹⁸⁷ Vallone, D., Cantrell, J., Bennett, M., Smith, A., Rath, J. M., Xiao, H., Greenberg, M., & Hair, E. C. . (2018). Evidence of the impact of the truth FinishIt Campaign. *Nicotine and Tobacco Research*, 20(5), 543-551. https://doi.org/10.1093/ntr/ntx119
- ¹⁸⁸ Allen, J. A., Duke, J. C., Davis, K. C., Kim, A. E., Nonnemaker, J. M., & Farrelly, M. C. (2015). Using mass media campaigns to reduce youth tobacco use: A review. *American Journal of Health Promotion*, 30(2), e71-e82. <u>https://doi.org/10.4278/ajhp.130510-LIT-237</u>
- ¹⁸⁹ Miami Gardens Florida. (n.d.). About the city. <u>https://www.miamigardens-fl.gov/252/About-the-City</u>
- ¹⁹⁰ Miami Gardens Florida. (n.d.). City demographics. <u>https://www.miamigardens-fl.gov/343/City-Demographics</u>
- ¹⁹¹ Oregon Liquor and Cannabis Commission. (n.d.). *About us.* <u>https://www.oregon.gov/olcc/Pages/</u> <u>About_Us.aspx</u>
- ¹⁹² Slater, M. E., & Alpert, H. R. (2022). Apparent per capita alcohol consumption: National, state, and regional trends, 1977–2020. National Institute on Alcohol Abuse and Alcoholism. <u>https://pubs.niaaa.</u> nih.gov/publications/surveillance119/CONS20.htm
- ¹⁹³ Substance Abuse and Mental Health Services Administration. (2021). 2019–2020 National Survey on Drug Use and Health: Model-based prevalence estimates (50 States and the District of Columbia). <u>https://www.samhsa.gov/data/report/2019-2020nsduh-state-prevalence-estimates</u>
- ¹⁹⁴ Center for Behavioral Health Statistics and Quality. (2020). Substance Abuse and Mental Health Data Archive. <u>https://datafiles.samhsa.gov/</u>
- ¹⁹⁵ ECONorthwest. (2021). Alcohol harms and economic burden – Interim report. <u>https://www.oregonrecovers.org/wp-content/uploads/2021/02/</u> OHA-Alcohol-Harms-Interim-Report_FINAL.pdf
- ¹⁹⁶ Oregon Liquor and Cannabis Commission. (2021). Commissioners address public health concerns, approve "floor pricing" - Industry and health experts split on outcomes and benefits. <u>https://www.oregon.gov/olcc/Docs/news/news_releases/2021/</u> nr040821-Commission-Meeting-Alcohol.pdf
- ¹⁹⁷ Oregon Liquor and Cannabis Commission. (2021). OLCC price floor: Summary of action. OLCC COVID RESPONSE: House Committee on Economic Development. <u>https://www.oregon.gov/olcc/Docs/commission_minutes/2021/OLCC-Floor-Pricing-Overview.pdf</u>
- ¹⁹⁸ Statistical Atlas. (2021). State Legislative District 45, Maryland.

- ¹⁹⁹ Census Bureau. (2018). 2014–2018 ACS 5-Year Data Profile [SAS Data file]. <u>https://www.census.gov/programs-surveys/acs/technical-documentation/table-and-geography-changes/2018/5-year.html</u>
- ²⁰⁰ McCray, C. (2020). Commentary: Want to reduce crime? Challenge the status quo. AFRO. <u>https://afro. com/commentary-want-to-reduce-crime-challengethe-status-quo/</u>
- ²⁰¹ Centers for Disease Control and Prevention. (2012). Introduction to program evaluation for public health programs: A self study guide. <u>https://www.cdc.gov/</u> evaluation/guide/index.htm
- ²⁰² Centers for Disease Control and Prevention. (2013). National Center for Injury Prevention and Control Step by Step – Evaluating violence and injury prevention policies. <u>https://www.cdc.gov/injury/ pdfs/policy/brief%201-a.pdf</u>
- ²⁰³ McAteerm, C. (2020). What is equitable evaluation? Corona Insights. <u>https://www.coronainsights.</u> <u>com/2020/09/what-is-equitable-evaluation/</u>
- ²⁰⁴ The Equitable Evaluation Initiative. (2020). The equitable evaluation framework: Principles and co-learning. <u>https://www.equitableeval.org/</u> framework
- ²⁰⁵ Centers for Disease Control and Prevention. (n.d.). *Types of evaluations*. <u>https://www.cdc.gov/std/</u> Program/pupestd/Types%20of%20Evaluation.pdf
- ²⁰⁶ Community Anti-Drug Coalitions of America National Coalition Institute. (2019). *Planning primer: Developing a theory of change, logic models and strategic and action plans*. <u>https://www.cadca.</u> <u>org/resources/planning-primer-developing-theorychange-logic-models-and-strategic-and-action-plans</u>
- ²⁰⁷ National Institute on Drug Abuse. (2019). Monitoring the Future. <u>https://nida.nih.gov/research-topics/trends-statistics/monitoring-future</u>
- ²⁰⁸ Centers for Disease Control and Prevention. (2018). Adolescent and school health - data & documentation. <u>https://www.cdc.gov/healthyyouth/</u><u>data/yrbs/data.htm</u>
- ²⁰⁹ Centers for Disease Control and Prevention. (2020). Behavioral Risk Factor Surveillance System. <u>https://www.cdc.gov/brfss/brfssprevalence/</u>
- ²¹⁰ Centers for Disease Control and Prevention. (2021). National Health and Nutrition Examination Survey. <u>https://www.cdc.gov/nchs/nhanes/index.htm</u>
- ²¹¹ Administration on Children Youth & Families. (2016). Qualitative research methods in program evaluation: Considerations for federal staff. <u>https://www.acf.hhs.gov/sites/default/files/documents/ acyf/qualitative_research_methods_in_program_ evaluation.pdf</u>

²¹² Community Anti-Drug Coalitions of America. (2019). Setting the context for a community coalition evaluation. National Coalition Institute. <u>https://</u> www.cadca.org/sites/default/files/resource/files/ evaluationprimer.pdf

Glossary

Alcohol misuse: A pattern of drinking resulting in harm to one's health, interpersonal relationships, or ability to work. Alcohol misuse includes <u>binge and heavy drinking</u>, as well as underage drinking and drinking by pregnant people.

Alcohol use disorder: A chronic medical condition characterized by an impaired ability to stop or control alcohol use, despite adverse social, occupational, or health consequences.

Binge drinking: Consuming four or more standard drinks on an occasion for a woman, or five or more standard drinks on an occasion for a man. A standard drink is 12 fluid ounces of beer (5 percent alcohol), 8 to 9 fluid ounces of malt liquor (7 percent alcohol), 5 fluid ounces of wine (12 percent alcohol), or 1.5 fluid ounces of 80-proof distilled spirits (40 percent alcohol).

Cisgender: Individuals whose current gender identity is the same as the sex they were assigned at birth.

Community-based participatory approach: An approach that involves the engagement and equal participation of individuals affected by an issue or problem at hand and recognizes and appreciates the unique strengths and resources each person contributes. It is a cooperative, empowering, co-learning process that involves systems development and local community capacity-building.

Community Stakeholders: Members or organizations in a community that have a direct interest in the process and outcomes of a project, research study, or policy initiative.

Culturally Responsive and Equitable Evaluation (CREE): Evaluation that incorporates cultural, structural, and contextual factors (e.g., historical, social, economic, racial, ethnic, gender) using a participatory process that shifts power to individuals most impacted.

Disability Adjusted Years of Life: The disability-adjusted life year (DALY) is a measure of overall disease burden. One DALY represents the loss of the equivalent of one year of full health. DALYs for a disease or health condition are the sum of years of life lost due to premature mortality and years of healthy life lost due to disability from cases of the disease or health condition in a population.

Evidence-based practices: Interventions that are guided by the best research evidence with practice-based expertise, cultural competence, and the values of the persons receiving the services, that promote individual-level or population-level outcomes.

Fidelity: The extent to which an intervention is delivered as conceived and planned.

Formative evaluation: An evaluation that assesses the readiness of an organization or community to implement the intervention, articulates a theory of change, and determines the extent to which evaluators can assess an intervention in a reliable and credible fashion.

Health inequities: Differences in health status or in the distribution of healthcare and other resources between different population groups or geographic areas, arising from the social conditions in which people are born, grow, live, work, and age.

Heavy drinking: Consuming eight or more standard drinks per week for a woman, or 15 or more standard drinks per week for a man.

Impact evaluation: An evaluation that assesses an intervention's effectiveness in achieving its ultimate goals. Impact evaluations determine whether, and sometimes the extent to which, the newly implemented intervention led to changes in desired and unexpected outcomes.

Indicators: Quantitative or qualitative metrics that provide information to monitor performance, achievement, and accountability.

Intervention: A program, initiative, service, or policy designed to reduce excessive alcohol use and related harms.

Lived experience: Personal knowledge gained through direct, first-hand involvement. In the context of this report, lived experience refers to individuals who have experienced mental illness, substance use or substance use disorder, or homelessness.

Male/female: Terms used for an individual's sex assigned at birth based on physiological characteristics, including genitalia and chromosome composition.

Man/woman: Two genders with which a person may self-identify. Gender is a spectrum, in that there are many identities, and may include transgender, non-binary, or gender neutral.

Minimum pricing: A policy that sets a minimum price based on the amount of a specific alcoholic beverage type, regardless of alcohol content within that beverage (such as a liter of beer, wine, or liquor). For example, a 25-ounce bottle of wine that is 10 percent ABV will have the same minimum price as a 25-ounce bottle of wine that is 12 percent ABV.

Minimum unit price: A policy that sets a minimum price based on the amount of alcohol. Setting a minimum unit price makes stronger alcohol products more expensive. Retailers cannot sell alcohol for less than that price no matter where they are selling (e.g., bar, restaurant, liquor store).

Nuisance ordinances: Local ordinances that allow jurisdictions to regulate alcohol retailers who are consistently cited for their business practices, such as extensive advertising, loitering, or crime at their establishment.

Off-premises: Alcohol purchased through liquor, grocery, convenience, and other stores for consumption off-site.

On-premises: Alcohol served in bars and restaurants for consumption in these locations.

Outcome evaluation: An evaluation that collects baseline data and data at defined intervals (e.g., annually) during and after implementation of the intervention, to assess short- and long-term outcomes related to the targeted behaviors.

Process (implementation) evaluation: An evaluation that assesses the quality of an intervention's implementation and conditions that facilitate or create barriers to successful implementation. Process evaluation enables program managers and policymakers to assess whether they have implemented the intervention as planned, and whether and to what extent it reached the intended audience.

Social determinants of health: Conditions in the environments where people are born, live, learn, work, play, worship, and age that affect health.

Social media influencer: Individuals or groups who have a reputation as having expertise on certain topics, such as food, fashion, music, or pop culture. Influencers, who may be paid by commercial interests such as alcohol marketers, make regular posts on social media to generate interactions, and promote product purchasing by their large base of followers.

Stakeholders: Individuals, organizations, or communities that have a direct interest in the process and outcomes of a project, research, or policy endeavor/initiative.

Standard drink: One "standard" drink (or one alcoholic drink equivalent) contains roughly 14 grams of pure alcohol, which is found in 12 ounces of regular beer (usually about 5 percent alcohol); 5 ounces of wine (typically about 12 percent alcohol); 1.5 ounces of distilled spirits (about 40 percent alcohol).

Substance misuse: Use of any substance in a manner, situation, amount, or frequency that can cause harm to users or those around them. For some substances or individuals, any use would constitute misuse (e.g., underage drinking, injection drug use).

Substance use: Use—even one time—of alcohol or other drugs.

Sustainability: The process of building an adaptive and effective prevention system that achieves and maintains desired long-term results.

Transgender: Individuals whose gender identity differs from the sex they were assigned at birth.

Under-resourced communities: Population groups or geographic areas that experience greater obstacles to health, based on characteristics such as, but not limited to, race/ethnicity, socioeconomic status, age, gender, disability status, historical traumas, sexual orientation/gender identity, and/or location.

Universal interventions: Prevention efforts that focus on all people in a population.

APPENDIX 1: Acknowledgments

This guide is based on the thoughtful input of SAMHSA staff and the Technical Expert Panel on Implementing Community-Level Policies to Reduce Alcohol Misuse from October 2021 through June 2022; two expert panel meetings were convened during this time.

SAMHSA Staff

Brian Altman, JD, National Mental Health and Substance Use Policy Laboratory

Robert Baillieu, MD, MPH, Center for Substance Abuse Treatment *

Jerry Campbell, Center for Substance Abuse Prevention *

Tanya Geiger, PhD, MPH, Center for Behavioral Health Statistics and Quality *

Kirk James, MD, Center for Substance Abuse Treatment *

CAPT Donelle Johnson, PhD, MHSA, National Mental Health and Substance Use Policy Laboratory *

Krishnan Radhakrishnan, MD, PhD, MPH, National Mental Health and Substance Use Policy Laboratory *

Robert Vincent, MSEd, Center for Substance Abuse Prevention *

Technical Expert Panel

Tom Babor, PhD, MPH, University of Connecticut School of Medicine

Ruben Baler, PhD, National Institute on Drug Abuse

Gregory Bloss, MA, MPP, Division of Epidemiology and Prevention Research, National Institute on Alcohol Abuse and Alcoholism Marissa Esser, PhD, MPH, Alcohol Program, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

Tiffany Hall, MPA, Recover Alaska

Beth Han, MD, PhD, MPH, National Institute on Drug Abuse

David Jernigan, PhD, Boston University School of Public Health

Elisabeth Kato, MD, MRP, Agency for Healthcare Research and Quality

Bill Kerr, PhD, Alcohol Research Group

Juliet Lee, PhD, Prevention Research Center, Pacific Institute for Research and Evaluation

Rod Robinson, MA, MAC, LAT, Bureau of Indian Affairs

Michael Sparks, MA, SparksInitiatives

Contract Staff

Alicia Sparks, PhD, MPH, Guide Lead, Abt Associates * *Members of Guide Planning Team

Photos are for illustrative purposes only. Any person depicted in a photo is a model.

Publication No. PEP22-06-01-006



SAMHSA's mission is to reduce the impact of substance use and mental illness on America's communities. 1-877-SAMHSA -7 (1-877-726-4727) •1-800-487-4889 (TDD) • www.samhsa.gov