



Prevalence and disparities in excessive alcohol use among U.S. adults

17 million report heavy drinking, 40 million report binge drinking

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SUMMARY

Underpinning significant growth in alcohol-involved deaths in recent years, tens of millions of U.S. adults report heavy drinking and binge drinking--also known as "excessive" alcohol use. But survey data also show wide disparities in excessive alcohol consumption patterns across demographic groups. This brief examines the prevalence of heavy drinking and binge drinking across different age, gender, income, and race and ethnicity categories.

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Introduction

In the past several years, researchers have shone new light on the public health threat of alcohol consumption in the United States. Nationally, life expectancy has declined, while deaths involving drugs and alcohol have increased.¹ Those findings are reinforced by studies finding increased high-risk alcohol consumption, such as binge drinking and heavy drinking.² And early evidence indicates that the COVID-19 pandemic has only accelerated Americans' alcohol consumption and risky drinking behaviors.³

The health toll of excessive alcohol consumption affects nearly every segment of the U.S. adult population, as shown by statistically significant growth in alcohol-involved deaths in almost every state and demographic subgroup in a recent SHADAC analysis.⁴ However, alcohol-involved deaths have not affected the population evenly, with some states and some demographic subgroups experiencing much higher death rates than others.

This analysis focuses on high-risk alcohol consumption behaviors that can lead to death and other alcohol-involved diseases. Similar to alcohol-involved deaths, we found significant differences among demographic subgroups in the prevalence of binge drinking and heavy drinking.

Binge drinking and heavy drinking

Medical research has consistently demonstrated that high-risk patterns of alcohol consumption are associated with serious health risks. The U.S. Centers for Disease Control and Prevention (CDC) defines excessive alcohol use as binge drinking and heavy drinking, or any alcohol consumption by pregnant women or people under age 21.⁵ For this analysis, however, we focus on binge and heavy drinking:

BINGE DRINKING

Binge drinking is consuming enough alcohol to raise one's blood alcohol concentration (BAC) to 0.08 g/dl or above. For men, that equates to a rate of roughly five or more drinks within a period of two hours, while for women, that equates to roughly four or more drinks within two hours. The difference in binge drinking thresholds between men and women is due to differing abilities in metabolizing alcohol, with women tending to reach higher BAC levels with less alcohol consumption because of different physiology.⁶

HEAVY DRINKING

The CDC defines drinking in moderation as consuming the equivalent of two or less alcoholic drinks a day for men, and one or less alcoholic drinks a day for women. As with binge drinking, the reason for the difference in quantity is because men and women metabolize alcohol differently, and a smaller amount can have greater negative health consequences for women. Heavy drinking is any alcohol consumption above those moderate drinking levels, generally described in terms of weekly alcohol use: eight or more drinks per week for women, and fifteen or more drinks per week for men.

Alcohol consumption survey results

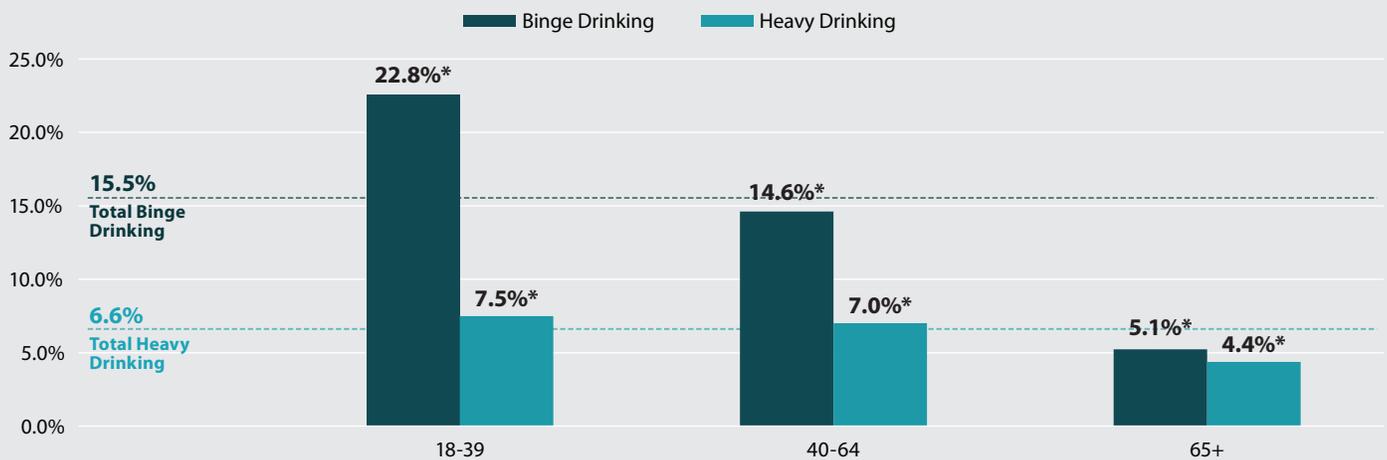
Using data from the 2020 Behavioral Risk Factor Surveillance System (BRFSS) survey, SHADAC developed estimates for the percentage of adults who report binge drinking and heavy drinking by different demographic categories at the U.S. level.

Excessive drinking by age

Our analysis found that people generally reported binge drinking at rates that were substantially higher than heavy drinking rates. At the national level, adults were almost three times as likely to report binge drinking (15.5 percent) versus heavy drinking (6.6 percent).

That pattern was more pronounced among younger adults, age 18-39, whose binge drinking rate of 22.8 percent was slightly more than three times their heavy drinking rate of 7.5 percent. Each of those rates was significantly higher than the binge and heavy drinking rates for the total adult population mentioned in the previous paragraph. Among adults age 40-64, their binge drinking rate was just over double their heavy drinking rate (14.6 percent vs. 7.0 percent). While this age group's binge drinking rate was slightly lower than the total population's binge drinking rate of 15.5 percent, that difference was nevertheless statistically significant. And like younger adults, people age 40-64 also had a heavy drinking rate that was significantly higher than the total population rate (7.0 percent vs. 6.6 percent).

Figure 1. Adult binge and heavy drinking rates by age, 2020



* Statistically significant difference from total population rate at 95% level. SHADAC analysis of the 2020 Behavioral Risk Factor Surveillance System (BRFSS).

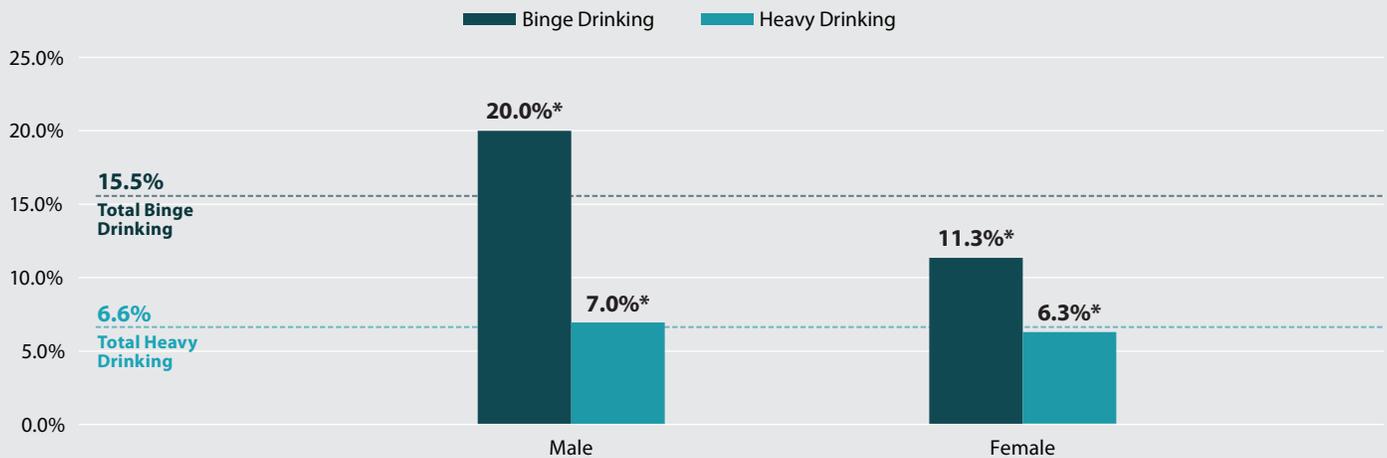
Overall drinking patterns were different among elderly adults, age 65 and older. Individuals in this category reported a binge drinking rate that was only slightly higher than their heavy drinking rate (5.1 vs. 4.4 percent). Additionally, both of those rates were significantly lower than their counterpart rates for the total population.

Excessive drinking by gender

In examining excessive drinking by gender, data show that men report being significantly more likely to drink heavily and to binge drink than women—however, the difference is much larger for binge drinking.

Among men, 20.0 percent reported binge drinking behaviors, which was nearly double the rate among women, of 11.3 percent, a statistically significant difference. Heavy drinking was less prevalent for both men and women, with 7.0 percent of men reporting heavy drinking while 6.3 percent of women reported the same. It is worth noting here, the difference in definitions for heavy drinking: fifteen or more drinks per week for men versus eight drinks per week for women. Meaning that, in absolute terms, women reach the level of heavy drinking quite a bit faster than men. However, that is because the negative health consequences of alcohol consumption accumulate with fewer drinks for women.

Figure 2. Adult binge and heavy drinking rates by gender, 2020



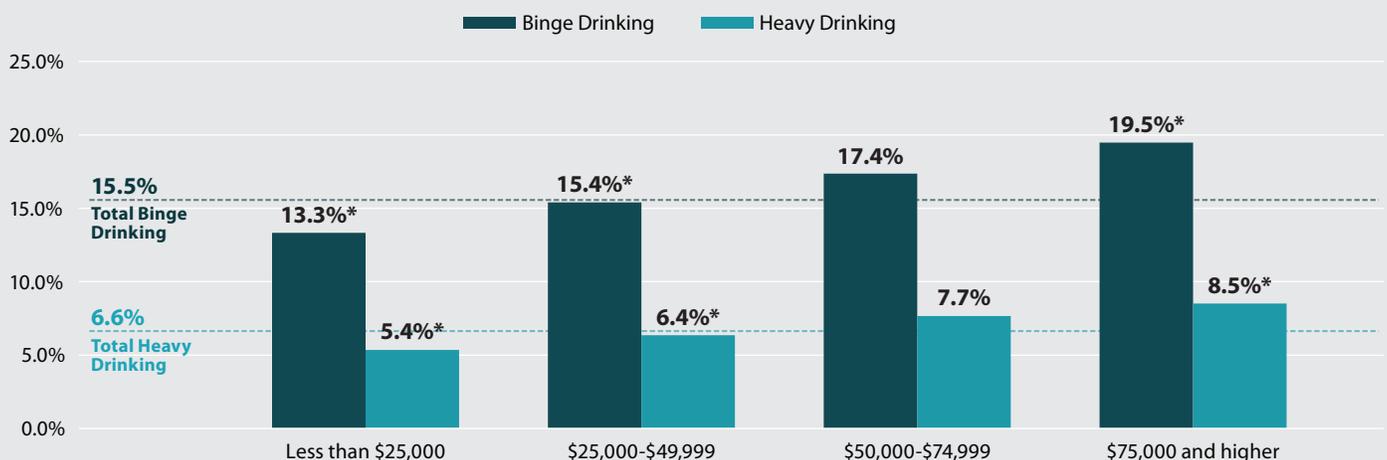
* Statistically significant difference from total population rate at 95% level. SHADAC analysis of the 2020 Behavioral Risk Factor Surveillance System (BRFSS).

Excessive drinking by income

Excessive drinking by income demonstrates a surprising pattern when compared with many other health risk factors. For instance, people with lower incomes tend to have higher smoking rates and are less likely to eat recommended amounts of fruits and vegetables.^{7,8} However, our analysis found that people with higher incomes were more likely to consume alcohol excessively.

People with the lowest incomes in our study, less than \$25,000, reported the lowest rates of heavy drinking (5.4 percent) and binge drinking (13.3 percent)—both of which were significantly lower than the total population rates. Both heavy drinking and binge drinking rates increased steadily with income, such that people whose incomes fell between \$25,000 and \$49,999 had rates that were slightly higher than people with the lowest incomes (6.4 percent and 15.4 percent, respectively), again both significantly lower than the total population rates. People with incomes of \$50,000 to \$74,999 had rates of heavy drinking and binge drinking (7.7 percent and 17.4 percent) that were not significantly different than total population rates. Meanwhile, people with incomes \$75,000 or more had heavy drinking and binge drinking rates (8.5 percent and 19.5 percent) that were significantly higher than the total population rates.

Figure 3. Adult binge and heavy drinking rates by income, 2020



* Statistically significant difference from total population rate at 95% level. SHADAC analysis of the 2020 Behavioral Risk Factor Surveillance System (BRFSS).

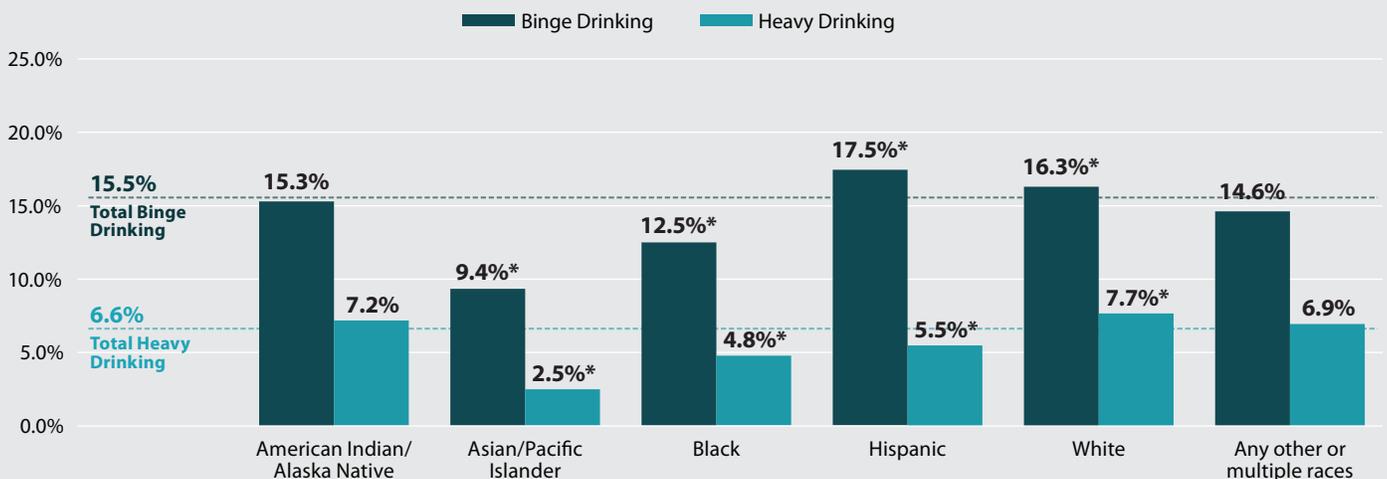
Excessive drinking by race and ethnicity

When examining excessive drinking rates by race and ethnicity, White people were the only group to report heavy drinking and binge drinking rates (7.7 percent and 16.3 percent, respectively) that were both significantly higher than the total population rates. The excessive drinking pattern among Hispanic people was unique, as their binge drinking rate of 17.5 percent was significantly higher than the total population rate, while their heavy drinking rate of 5.5 percent was significantly lower than the total population rate.

Asian and Pacific Islander people reported the lowest heavy drinking and binge drinking rates (2.5 percent and 9.4 percent, respectively), which were both significantly lower than the total population rates. Black people also reported heavy drinking and binge drinking rates (4.8 percent and 12.5 percent, respectively) that were significantly lower than the total population rates.

American Indian and Alaska Native people reported heavy drinking and binge drinking rates (7.2 percent and 15.3 percent, respectively) that were not significantly different than the total population rates, as did people reporting Any other race or multiple races (6.9 percent and 14.6 percent, respectively).

Figure 4. Adult binge and heavy drinking rates by race and ethnicity, 2020



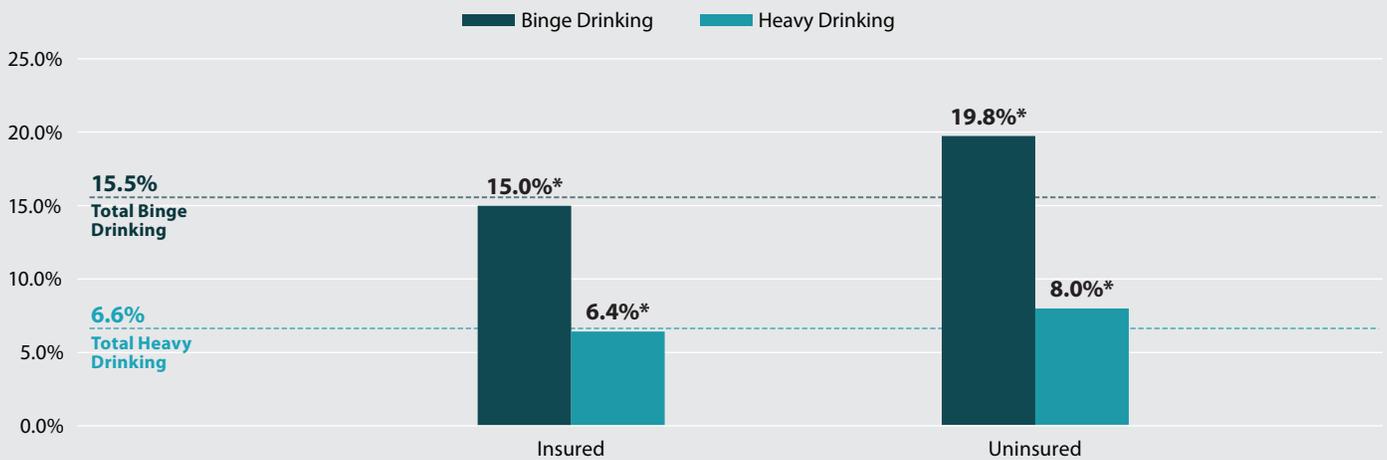
* Statistically significant difference from total population rate at 95% level. SHADAC analysis of the 2020 Behavioral Risk Factor Surveillance System (BRFSS).

Excessive drinking by health insurance coverage

Excessive alcohol consumption by individuals' health coverage status demonstrates a concerning pattern: People without health insurance—a strong indicator of access to health care services—have significantly higher rates of binge drinking and heavy drinking, while people with health insurance have significantly lower rates of both. This is particularly troubling because health care providers can play a vital role in screening for excessive alcohol consumption, counseling their patients on the importance of moderating their drinking, and connecting them to treatment for alcohol use disorders, if necessary.

Among people without health insurance, 19.8 percent report binge drinking and 8.0 percent report heavy drinking, while among those with health insurance, 15.0 percent report binge drinking, while 6.4 percent report heavy drinking.

Figure 5. Adult binge and heavy drinking rates by health insurance coverage, 2020



* Statistically significant difference from total population rate at 95% level. SHADAC analysis of the 2020 Behavioral Risk Factor Surveillance System (BRFSS).

Conclusion

For more than a decade, U.S. alcohol-involved deaths have been increasing—having grown 49 percent from 2006 to 2019.⁹ Those deaths are typically the result of years of excessive alcohol consumption, which can cause a variety of health problems, such as liver disease and damage to other organs. In this analysis, SHADAC examined the prevalence of two key forms of excessive alcohol consumption among adults: heavy drinking and binge drinking.

Our analysis found that 6.6 percent of adults report heavy drinking, and 15.5 percent report binge drinking. While those percentages only represent small fractions of the U.S. population, they represent roughly 17 million heavy drinkers and 40 million binge drinkers in 2020—a sizable number of people. However, we also found significant disparities in excessive drinking patterns, demonstrating that certain segments of the U.S. population is at higher risk of alcohol-involved illness and death. For instance, roughly one in five younger adults (age 18-39), men, people with higher incomes (\$75,000 or more), and uninsured people report significantly higher rates of binge drinking.

One of the first steps in mitigating the growing toll of alcohol-involved deaths is to acknowledge the prevalence of high-risk drinking behaviors. From there, public health and health care professionals can better educate individuals about the dangers of excessive drinking and how to moderate alcohol-consumption to reduce the health dangers, or how to help them to quit drinking entirely if that is the best solution for certain individuals. Identifying and focusing resources, such as alcohol use disorder screening and educational materials, may also be useful to ensuring that groups at highest risk of alcohol-involved health burdens don't fall through the cracks. However, it's important to realize that the burden of higher alcohol use is growing across the board, affecting even groups that historically have been less likely to die of alcohol-involved disease, such as women.

Suggested citation

Planalp, C. (2022). *Prevalence and disparities in excessive alcohol use among U.S. adults*. State Health Access Data Assistance Center (SHADAC). <https://www.shadac.org/publications/US-high-risk-alcohol-consumption-behaviors>

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