

NYS BRFSS Brief

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual statewide telephone survey of adults developed by the Centers for Disease Control and Prevention and conducted in all 50 States, the District of Columbia, and several US Territories. The New York BRFSS is administered by the New York State Department of Health to provide statewide and regional information on behaviors, risk factors, and use of preventive services related to the leading causes of chronic and infectious diseases, disability, injury, and death.

Binge and Heavy Drinking

New York State Adults, 2021

Introduction

Excessive alcohol use is associated with short-term health outcomes such as unintentional injuries and violence, long-term health outcomes including chronic diseases, and learning and mental health concerns like anxiety, depression, and memory problems. Binge drinking and heavy drinking are two patterns of excessive alcohol use. Excessive alcohol use also includes any kind of drinking by pregnant people or people under age 21.¹ Binge drinking is defined as consuming 4 or more drinks for women and 5 or more drinks for men on a single occasion. Heavy drinking is defined as consuming 8 or more drinks per week for women and 15 or more drinks per week for men.¹

Excessive alcohol use is one of the leading causes of preventable and premature death in the United States (US), responsible for 140,000 preventable deaths attributable to excessive alcohol use each year.^{2,3,4} In New York State (NYS), excessive alcohol use causes nearly 6,700 deaths annually, resulting in an average of 24 years of potential life lost per death.³ Excessive alcohol use also results in economic costs and costs NYS an estimated \$16.3 billion, or approximately \$2.28 per drink.⁵ Economic costs due to excessive drinking include losses in workplace productivity, health care expenses, criminal justice expenses, and motor vehicle crash costs.

Excessive alcohol use, both in the form of heavy drinking or binge drinking, is associated with an increased risk for several chronic diseases and conditions. Excessive alcohol use has been linked to an increased risk for various types of cancer including those of the oral cavity and pharynx, larynx, esophagus, liver, colon, rectum, and female breast.⁶ Research indicates the more alcohol a person drinks regularly over time, the higher their risk of developing an alcohol-associated cancer. Excessive alcohol use over time also increases the risk for hypertension, cardiovascular disease, stroke, liver disease, and digestive diseases.¹ An estimated 3.2% of all cancer deaths in NYS are attributable to alcohol consumption.⁷

Key Findings



- One in 6 adults in NYS (16.4%) reported excessive alcohol use in the form of either binge or heavy drinking, with an estimated 14.9% of adult in NYS reporting binge drinking and 5.5% reporting heavy drinking.
- The prevalence of heavy drinking decreased significantly from 6.5% in 2020 to 5.5% in 2021.
- Adults who binge drink reported an average of 4.3 binge drinking occasions per month (median = 1.6 occasions) and an average of 7.0 drinks per binge drinking episode (median = 5.3 drinks).
- The prevalence of binge drinking was higher in males, and adults with an annual household income of \$75,000 or more.
- White, non-Hispanic adults reported higher rates of binge (16.6%) and heavy drinking (7.1%) when compared to adults representing other racial and ethnic groups.
- Binge drinking and heavy drinking were significantly higher in adults who were less than 35 years of age and adults who reported being employed or self-employed.
- The prevalence of binge drinking and heavy drinking were significantly higher in adults who reported frequent mental distress (19.6% and 9.0%, respectively).
- The prevalence of binge drinking among adults who reported current smoking (28.2%) was more than double the prevalence reported among those who did not currently smoke (13.2%) and the prevalence of heavy drinking was almost three times greater among people who smoked (12.1%) as compared to people who did not smoke (4.6%).

Health Equity

The NYSDOH acknowledges that social, economic, and environmental inequities result in adverse health outcomes and can have a greater impact on health than individual choices.⁸ Alcohol consumption and its related harms vary across population groups and certain groups face a disproportionate burden of alcohol-related harms. Despite reporting lower binge and heavy drinking prevalence than non-Hispanic White adults (Table 1), non-Hispanic Black adults and Hispanic adults experience greater alcohol-related harms.^{9,10,11} Similarly, adults with lower socioeconomic status have disproportionately greater alcohol attributable risk even with lower levels of alcohol consumption.^{12,13} For example, studies have shown that as socioeconomic status decreases, the risk for alcohol associated mortality increases.¹⁴





Figure 1. Prevalence of binge drinking among US and NYS adults by survey year, BRFSS 2014-2021



*Median percent; includes data from all 50 states and the District of Columbia.

Figure 2. Prevalence of heavy drinking among US and NYS adults by survey year, BRFSS 2014-2021



*Median percent; includes data from all 50 states and the District of Columbia.



Figure 3. Prevalence of binge or heavy drinking among NYS adults by sex, race/



Table 1. Prevalence of binge or heavy drinking by select demographic groups in NYS, BRFSS 2021

	Pingo or Honyy Drinkings		Bingo	Drinking	Heavy Drinking	
	singe or i	95% CI	Binge i	95% CIb	Heavy Dri	95% CI
Total NYS [N=39.095]	16.4	15.7-17.2	14.9	14.2-15.6	5.5	5.0-5.9
Region						
Rest of State (NYS excluding NYC)	16.2	15.2-17.0	14.5	13.7-15.4	6.0	5.4-6.5
New York City	16.8	15.5-18.1	15.5	14.3-16.7	4.7	4.0-5.4
Sex ^c						
Male	19.7	18.6-20.8	18.6	17.6-19.7	5.2	4.6-5.2
Female	13.4	12.5-14.4	11.5	10.6-12.4	5.7	5.1-6.3
Race, Ethnicity						
White, non-Hispanic	18.5	17.5-19.5	16.6	15.6-17.5	7.1	6.5-7.8
Black, non-Hispanic	12.8	11.1-14.6	11.8	10.1-13.5	3.4	2.4-4.4
Hispanic	12.7	10.2-15.2	12.2	9.7-14.7	2.3	1.3-3.2
Other race or multiracial, non-Hispanic ^d	15.6	13.9-17.2	14.3	12.7-15.8	3.8	3.0-4.7
Age						
18-24	20.3	17.7-22.9	19.5	16.9-22.0	5.9	4.4-7.4
25-34	25.0	22.9-27.2	23.8	21.7-26.0	7.0	5.6-8.4
35-44	19.8	17.9-21.7	18.4	16.6-20.2	6.1	4.9-7.3
45-54	18.4	16.6-20.2	16.7	15.0-18.5	6.0	4.9-7.2
55-64	13.8	12.1-15.5	11.9	10.2-13.5	5.4	4.5-6.4
65+	6.9	6.1-7.7	5.1	4.4-5.8	3.5	2.9-4.0
Educational Attainment						
Less than high school	13.2	11.0-15.3	11.8	9.8-13.9	4.6	3.2-6.0
High school or GED	14.2	12.9-15.4	13.0	11.8-14.2	4.6	3.9-5.3
Some post-high school	17.3	15.9-18.8	15.9	14.5-17.3	5.8	4.9-6.7
College graduate	18.6	17.4-19.9	16.8	15.6-17.9	6.2	5.5-7.0
Annual Household Income						
Less than \$25,000	14.0	12.3-15.8	13.1	11.3-14.8	4.6	3.6-5.6
\$25,000-\$34,999	15.4	13.3-17.5	13.9	11.9-16.0	4.5	3.5-5.6
\$35,000-\$49,999	13.7	11.6-15.9	12.3	10.3-14.4	4.8	3.3-6.2
\$50,000-\$74,999	18.2	16.1-20.2	16.9	15.0-19.9	6.6	5.3-7.9
\$75,000 or more	22.1	20.6-23.6	20.0	18.6-21.5	7.4	6.5-8.3
Missing ^e	11.0	9.7-12.2	9.6	8.4-10.8	3.6	2.8-4.3
Employment Status						
Employed/self-employed	20.6	19.5-21.6	19.0	17.9-20.0	6.5	5.8-7.2
Unemployed	19.4	16.5-22.3	18.3	15.4-21.2	5.9	4.1-7.7
Not in labor force	9.5	8.7-10.4	8.0	7.2-8.9	3.8	3.3-4.4
Health Coverage						
Private insurance	21.0	19.8-22.2	19.4	18.2-20.6	6.6	5.9-7.4
Medicare	8.6	7.5-9.7	6.6	5.6-7.6	4.3	3.5-5.1
Medicaid	13.2	11.5-15.0	12.5	10.7-14.2	3.9	2.9-4.8
Other insurance ^f	16.5	14.4-18.6	14.9	12.9-16.9	5.9	4.4-7.4
No insurance	19.2	16.0-22.4	17.5	14.5-20.6	6.0	4.0-8.1
Disability Status ^e						
Yes	13.4	12.1-14.6	11.9	10.7-13.2	5.0	4.2-5.8
No	17.6	16.7-18.4	16.0	15.1-16.8	5.7	5.2-6.2
Frequent Mental Distress ^h						
Yes	21.4	19.3-23.6	19.6	17.6-21.7	9.0	7.4-10.6
No	15.8	15.0-16.5	14.3	13.5-15.0	5.0	4.5-5.4
Current Smoker ⁱ						
Yes	30.3	27.8-32.8	28.2	25.7-30.6	12.1	10.3-13.8
No	14.6	13.9-15.3	13.2	12.5-13.9	4.6	4.1-5.0

^aRespondents who reported either binge or heavy drinking. ^b%= Weighted percentage; 95% CI= 95% confidence interval. ^cBased on respondent's sex at birth or current gender identity at time of interview if sex at birth is missing. ^dRespondents who reported they are not White, not Black, not of Hispanic origin, but reported multiracial, American Indian, Alaskan Native, Asian only, Native Hawaiian, other Pacific Islander or other races. ^{em}Missing" category included because more than 10% of the sample did not report income. ^{(I}Includes TRICARE, VA/Military, and Indian Health Services. ^{en}Respondents who reported at least one type of disability (cognitive, self-care, independent living, vision, mobility, or hearing). ^bFrequent mental distress is defined as yes if respondents reported problems with stress, depression, or emotions on at least 14 of the previous 30 days. ^CCurrent smoker is an adult over age 18 who has smoked at least 100 cigarettes in their lifetime and currently smokes on at least some days.

References

- 1. Centers for Disease Control and Prevention (CDC). Alcohol and Public Health. Retrieved on June 5, 2023. https://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm.
- Esser MB, Leung G, Sherk A, et al. Estimated deaths attributable to excessive alcohol use among US adults aged 20 to 64 years, 2015 to 2019. JAMA Netw Open. 2022;5(11):e2239485. Published 2022 Nov 1. doi:10.1001/jamanetworkopen.2022.39485–4.
- 3. Centers for Disease Control and Prevention. Alcohol Related Disease Impact (ARDI) application, 2022. Available at https://nccd.cdc.gov/DPH_ARDI/Default/Default/aspx.
- 4. Woolf SH, Schoomaker H. Life expectancy and mortality rates in the United States, 1959-2017. JAMA. 2019;322(20):1996-2016. doi:10.1001/jama.2019.16932
- 5. Sacks JJ, Gonzales KR, Bouchery EE, Tomedi LE, Brewer RD. 2010 National and state costs of excessive alcohol consumption. Am J Prev Med. 2015;49(5):e73-e79. doi:10.1016/j.amepre.2015.05.031
- 6. National Cancer Institute. Alcohol and Cancer Risk. Retrieved on July 26, 2022. https://www.cancer.gov/about-cancer/causes-prevention/risk/alcohol/alcohol-fact-sheet#r1.
- 7. Goding Sauer A, Fedewa SA, Bandi P, et al. Proportion of cancer cases and deaths attributable to alcohol consumption by US state, 2013-2016. Cancer Epidemiol. 2021;71(Pt A):101893. doi:10.1016/j. canep.2021.101893.
- 8. Social Determinants of Health, Healthy People 2030. Accessed on June 5, 2023 from https://health.gov/healthypeople/priority-areas/social-determinants-health.
- Ransome Y, Carty DC, Cogburn CD, Williams DR. Racial Disparities in the Association between Alcohol Use Disorders and Health in Black and White Women. Biodemography Soc Biol. 2017;63(3):236-252. doi:10.108 0/19485565.2017.1335589
- 10. Witbrodt J, Mulia N, Zemore SE, Kerr WC. Racial/ethnic disparities in alcohol-related problems: differences by gender and level of heavy drinking. Alcohol Clin Exp Res. 2014;38(6):1662-1670. doi:10.1111/acer.12398
- 11. Mulia N, Ye Y, Greenfield TK, Zemore SE. Disparities in alcohol-related problems among white, black, and Hispanic Americans. Alcohol Clin Exp Res. 2009;33(4):654-662. doi:10.1111/j.1530-0277.2008.00880.x
- Probst C, Lange S, Kilian C, Saul C, Rehm J. The dose-response relationship between socioeconomic deprivation and alcohol-attributable mortality risk-a systematic review and meta-analysis. BMC Med. 2021;19(1):268. Published 2021 Nov 5. doi:10.1186/s12916-021-02132-z
- Probst C, Roerecke M, Behrendt S, Rehm J. Socioeconomic differences in alcohol-attributable mortality compared with all-cause mortality: a systematic review and meta-analysis. Int J Epidemiol. 2014;43(4):1314-1327. doi:10.1093/ije/dyu043
- Bellis MA, Hughes K, Nicholls J, Sheron N, Gilmore I, Jones L. The alcohol harm paradox: using a national survey to explore how alcohol may disproportionately impact health in deprived individuals. BMC Public Health. 2016;16:111. Published 2016 Feb 18. doi:10.1186/s12889-016-2766-x



Suggested Citation

Balu, RK., O'Sullivan, G., Haile, K. and Battles, H. Binge and Heavy Drinking. New York State BRFSS Brief., No. 2023-10. Albany, NY: New York State Department of Health, Division of Chronic Disease Prevention, Bureau of Chronic Disease Evaluation and Research, August 2023



BRFSS Questions

- 1. During the past 30 days, how many days per week or per month did you have at least one drink of any alcoholic beverage such as beer, wine, a malt beverage or liquor?
- 2. One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor. During the past 30 days, on the days when you drank, about how many drinks did you drink on the average?
- 3. Considering all types of alcoholic beverages, how many times during the past 30 days did you have 5 or more drinks for men or 4 or more drinks for women on an occasion?
- 4. During the past 30 days, what is the largest number of drinks you had on any occasion?

Program Contributions



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Disclaimer:

This brief is partially supported by the Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$166,667. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by CDC/HHS, or the U.S. Government.