



The 2024 Delaware Epidemiological Profile

Substance Use, Mental
Health, and Related
Issues:

Alcohol



The Delaware 2024 Epidemiological Profile: Substance Use, Mental Health, and Related Issues

is prepared for

Director Joanna Champney and the
Delaware Division of Substance Abuse and Mental Health
&
The Delaware State Epidemiological Outcomes Workgroup

The annual Delaware State Epidemiological Profile is a valuable data resource for strategic planning, decision-making, and evaluation. The report includes modules that highlight indicators of mental health and wellbeing, patterns of substance use and its consequences, and risk and protective factors for people in Delaware. The report also highlights crosscutting issues that warrant attention as well as populations that may experience disproportionate risk for these concerns.

This module is part of a series of materials. To review the Annual Epidemiological Profile Companion Guide (which includes data notes), modules on additional topics, downloadable slides, and infographics, please visit the [UD Center for Drug and Health Studies Delaware Epidemiological Reports page](#). Links to presentations referenced in the annual profile are available from the [Presentations webpage](#).

The SEOW is facilitated by a team at the Center for Drug and Health Studies at the University of Delaware that convenes a network of more than 100 representatives from approximately 50 state and nonprofit agencies, community organizations, advocacy groups, and other entities. The SEOW's mission is to bring data on behavioral health and associated issues to the forefront of prevention and treatment efforts in Delaware. To learn more, please visit the [What is the SEOW?](#) webpage.



The annual Delaware Epidemiological Profile is a publication of the Delaware State Epidemiological Outcomes Workgroup (SEOW) project. Funding for the SEOW has been provided by the Department of Health and Social Services, Division of Substance Abuse and Mental Health through funding from the Substance Abuse and Mental Health Services Administration (SAMHSA). Please address all inquiries to M.J. Scales, MPH, CPS, University of Delaware [Center for Drug and Health Studies](#), Department of Sociology and Criminal Justice: mjscales@udel.edu.



Alcohol

Figure 1: Alcohol use in Delaware by age group, NSDUH 2021 and 2022	5
Figure 2: Adults who consumed alcohol in the past month by sex and race/ethnicity, DE BRFSS 2022	6
Figure 3: Adults who consumed alcohol in the past month by age group, DE BRFSS 2022.....	7
Figure 4: Adults who consumed alcohol in the past month by educational attainment, DE BRFSS 2022....	7
Figure 5: Adults who binge drink by sex and race/ethnicity, DE BRFSS 2022	8
Figure 6: Adults who binge drink by age group, DE BRFSS 2022	8
Figure 7: Adults who binge drink by educational attainment, DE BRFSS 2022	9
Figure 8: Alcohol use by grade, DSS 2023.....	10
Figure 9: Alcohol use by gender, 8 th grade, DSS 2023	11
Figure 10: Alcohol use by gender, 11 th grade, DSS 2023	11
Figure 11: Perception of risk from alcohol use, 5th grade, DSS 2023	12
Figure 12: Perception of risk from alcohol use, 8 th and 11 th grade, DSS 2023	12
Figure 13: High school students who had their first drink of alcohol before age 13, YRBS 2021	13
Figure 14: High school students who currently drank alcohol, YRBS 2021	14
Figure 15: High school students who were currently binge drinking, YRBS 2021.....	14
Figure 16: Middle school students who had their first drink before age 11 years, YRBS 2021	15
Figure 17: Middle school students who ever drank alcohol, YRBS 2021	15
Figure 18: Driving under the influence arrests, by age and gender, Delaware State Police	16
Figure 19: Trends in alcohol-involved traffic fatalities in Delaware by county, 2018-2022.....	17

Alcohol

While consumption has declined, alcohol use remains common among adults and youth. Approximately one in ten people age 12 and over in the U.S. fit the criteria for an alcohol use disorder ([National Institute on Alcohol Abuse and Alcoholism, n.d.](#)). Long-term use has been linked to a number of chronic conditions which carry significant personal and public health costs. The Centers for Disease Control and Prevention (CDC) report that deaths related to excessive alcohol use are on the rise. The [Alcohol-Related Disease Impact portal](#) (ARDI) estimates an annual national average of over 178,000 deaths attributable to chronic or acute conditions related to excessive consumption from 2020 through 2021 (CDC, n.d.). According to ARDI, the Delaware annual average for the same time frame is 561 alcohol-related deaths, with males representing about two-thirds of these deaths.

This module presents an overview of alcohol use in Delaware based on recent data from the following sources:

- National Survey on Drug Use and Health (NSDUH)
- Behavioral Risk Factor Surveillance System (BRFSS)
- Delaware School Survey (DSS)
- Youth Risk Behavior Survey (YRBS)
- National Highway Traffic Safety Commission
- Delaware State Police Delaware Information and Analysis Center

National Survey on Drug Use and Health¹

The National Survey on Drug Use and Health (NSDUH) annually provides a report with U.S. estimates and state comparisons for major substance use and mental health indicators. According to the 2021-2022 NSDUH, approximately half of all Delawareans age 12 and older (51.42%) report alcohol use within the past month. Rates of binge drinking are the highest among the 18–25-year-old age group, with nearly one-third of this group reporting the behavior. Less than half (43.24%) of all respondents perceive drinking five or more drinks once or twice a week as a great risk.

Alcohol use and perceptions of great risk in Delaware by age group: Model-based prevalence estimates from NSDUH ² , 2021 and 2022 (in percentages)					
Measure	Total 12 or Older	AGE GROUP			
		12-17	18-25	26 or Older	12-20 ³
Alcohol					
Past month alcohol use	51.42	6.82	54.40	55.73	15.58
Past month binge ⁴ drinking	21.16	3.15	32.17	21.57	8.96
Perceived great risk of drinking 5 or more drinks once or twice a week	43.24	41.91	38.10	44.08	41.73

Figure 1: Alcohol use in Delaware by age group, NSDUH 2021 and 2022

¹ Source: [Interactive NSDUH State Estimates](#), Substance Abuse and Mental Health Services Administration. Estimates from 2021-2022 are not comparable to estimates from previous years due to changes in NSDUH survey methodology. Users can [explore the data online](#).

² Estimates are based on a survey-weighted hierarchical Bayes estimation approach and generated by Markov Chain Monte Carlo techniques.

³ Underage drinking is defined for persons aged 12 to 20.

⁴ Binge alcohol use is defined as drinking five or more drinks (for males) or four or more drinks (for females) on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least one day in the past 30 days. In 2015, the definition for females changed from five to four drinks.

Behavioral Risk Factor Surveillance System (BRFSS)⁵

The Delaware Department of Public Health participates in the annual [Behavioral Risk Factor Surveillance System \(BRFSS\)](#), a survey funded by the Centers for Disease Control and Prevention (CDC) to monitor trends in adult health behaviors. The first series of figures in this section report any past month alcohol use among adults by key demographic characteristics. The next series of figures report the prevalence of binge drinking among adults by these same demographics. (Additional health behavior data is available through the [CDC's interactive data portal](#).)

In 2022, approximately 53.6% of adults reported past month alcohol consumption. Prevalence is greater among males (56.9%) than females (50.7%). When looking at the prevalence by race and ethnicity, multiracial non-Hispanic adults report the highest rates (61.9%) followed by white non-Hispanic adults (57.7%) while Hispanic adults report the lowest (36.6%). However, the reported rate among Asian non-Hispanic adults nearly doubled from 2021 when it was 26.5% to 50.9% in 2022.⁶

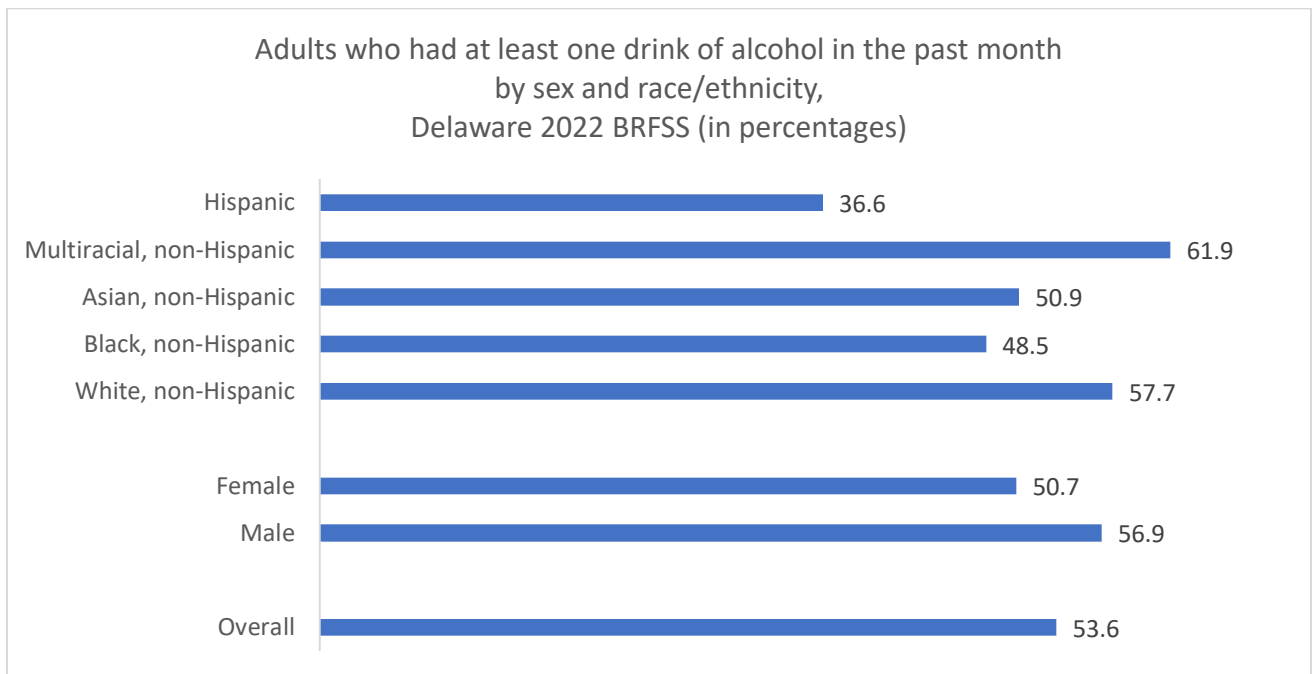


Figure 2: Adults who consumed alcohol in the past month by sex and race/ethnicity, DE BRFSS 2022

⁵ Source: Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System (BRFSS). [Explore BRFSS Data by Location](#).

⁶ It is important to note that while there is a statistical association between these factors, this does not necessarily mean that there is a causal relationship between them; in other words, we cannot say that one factor causes the other, and there may be other conditions that also influence the association. This holds true for all of the associations discussed in this report.

When comparing rates by age group, past month alcohol consumption is most prevalent among 25-34 year-old adults (60.1%) and least prevalent among those aged 65 and up (46.3%). However, alcohol use is common across all age groups, with nearly half of survey participants in all but the oldest group consuming at least one alcoholic drink in the past month.

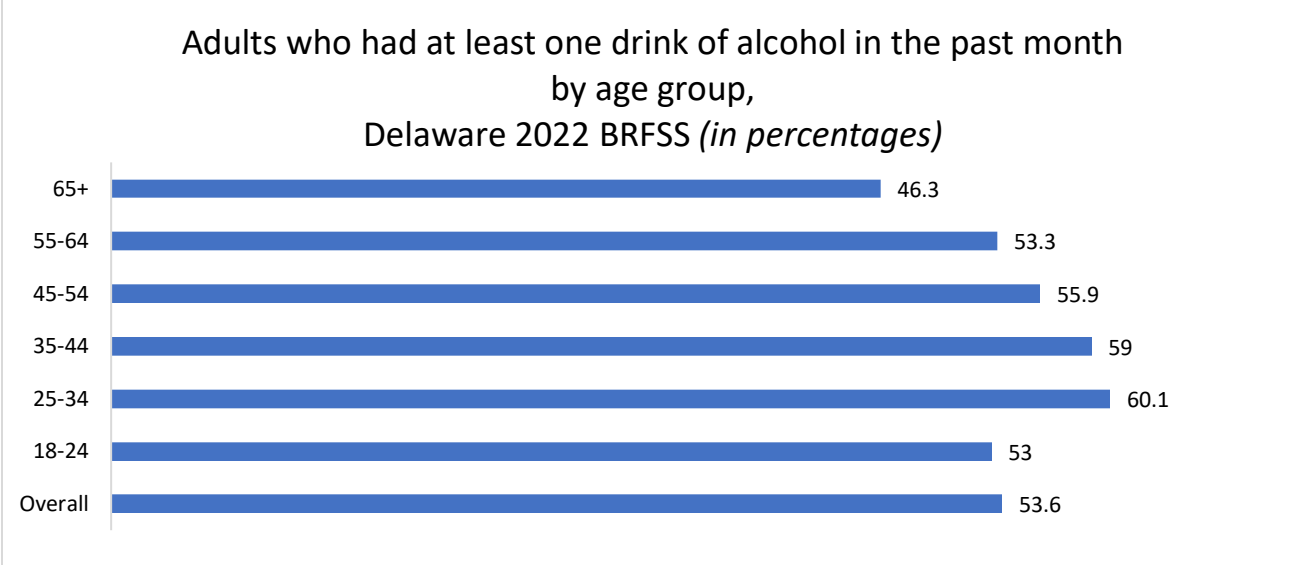


Figure 3: Adults who consumed alcohol in the past month by age group, DE BRFSS 2022

There are differences across rates of past month alcohol use associated with levels of educational attainment. Adults with higher levels of education are more likely to report past month use. In 2022, approximately two out of three college graduates in Delaware reported having at least one alcoholic drink within the past month compared to 27.2% of those without a high school diploma.

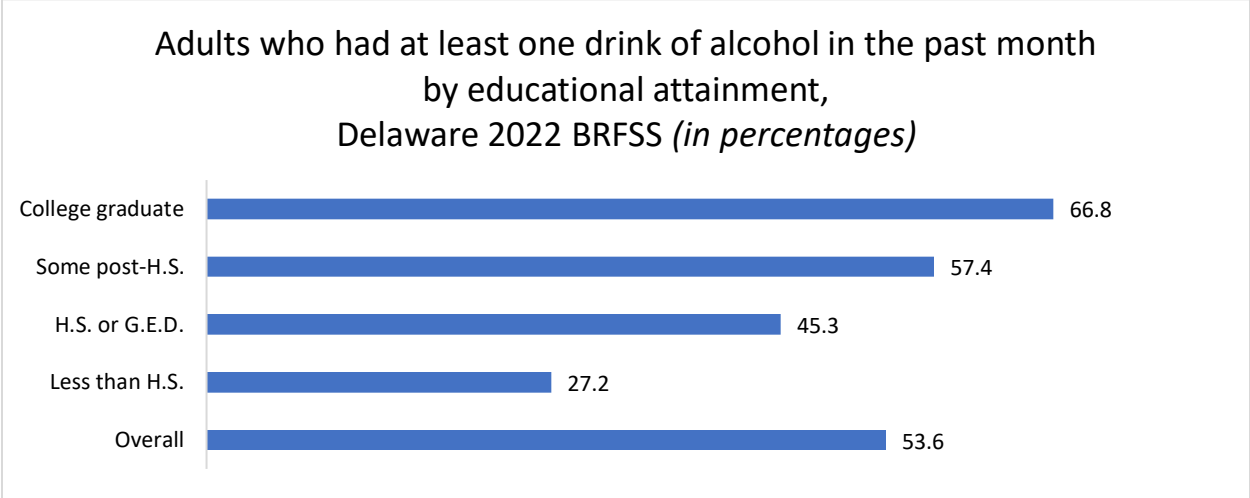


Figure 4: Adults who consumed alcohol in the past month by educational attainment, DE BRFSS 2022

Approximately 14% of adults in Delaware report binge drinking, which is defined as having at least four drinks (for females) or five drinks (for males) on one occasion. Binge drinking is more prevalent among males (16.5%) than females (11.6%). When looking at rates by race and ethnicity, white non-Hispanic adults report the highest rates (16.6%) compared to Black non-Hispanic and Hispanic adults who reported the lowest rates (9.1%).⁷

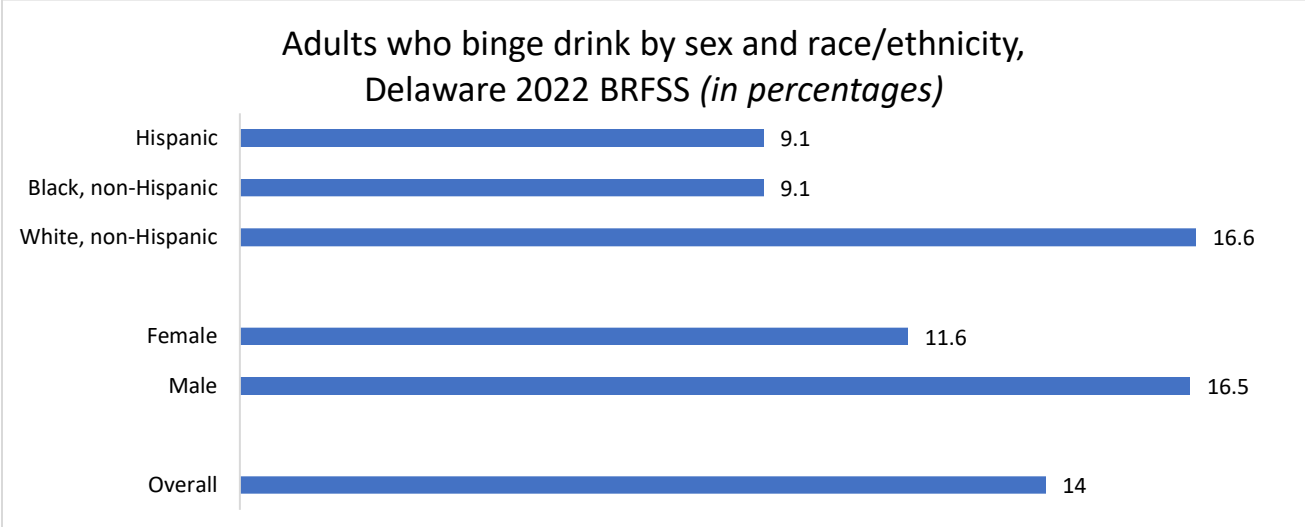


Figure 5: Adults who binge drink by sex and race/ethnicity, DE BRFSS 2022

Binge drinking appears more common among younger Delawareans. Nearly one in five adults aged 18 to 44 report binge drinking but this decreased to one in 20 among respondents aged 65 and older.

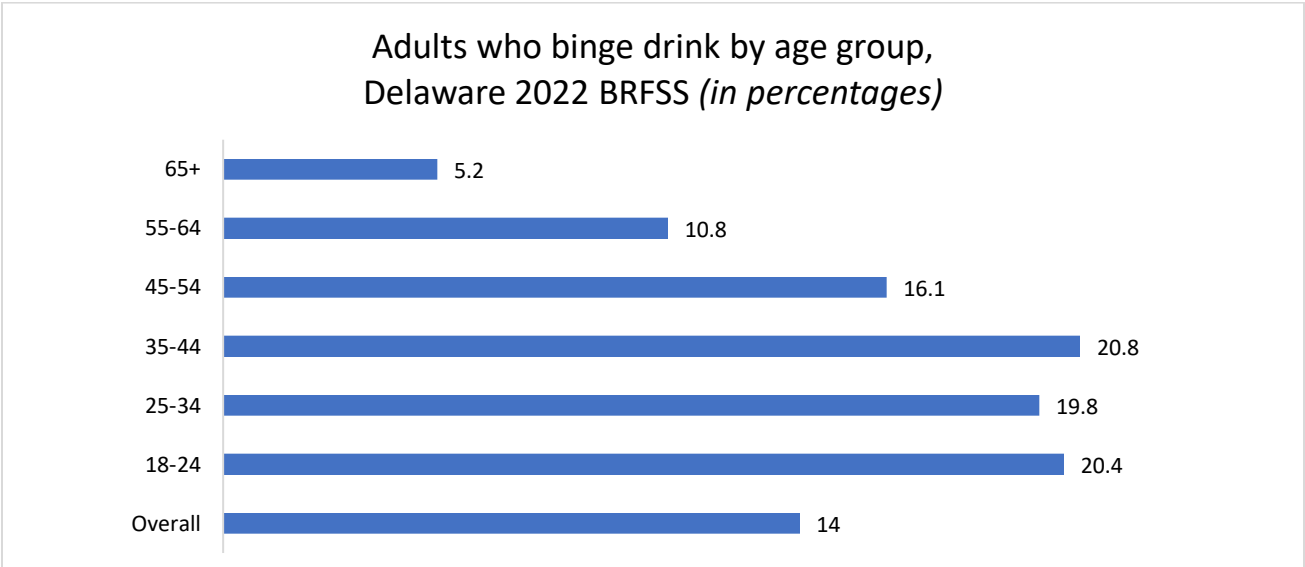


Figure 6: Adults who binge drink by age group, DE BRFSS 2022

⁷ The prevalence estimates for binge drinking among Asian non-Hispanic and multiracial non-Hispanic adults are not available because either the unweighted sample size for the denominator was less than 50 or the Relative Standard Error was >0.3.

Unlike past month alcohol use, there is no discernable pattern associated with binge drinking rates and levels of educational attainment. Similar to previous years, in 2022 the lowest rates were reported by respondents who did not complete high school or attain a G.E.D (7.8%). Respondents with some post-high school education reported a prevalence rate of 12.6%. Rates were slightly higher among college and high school graduates (15.5% and 15.6%, respectively).

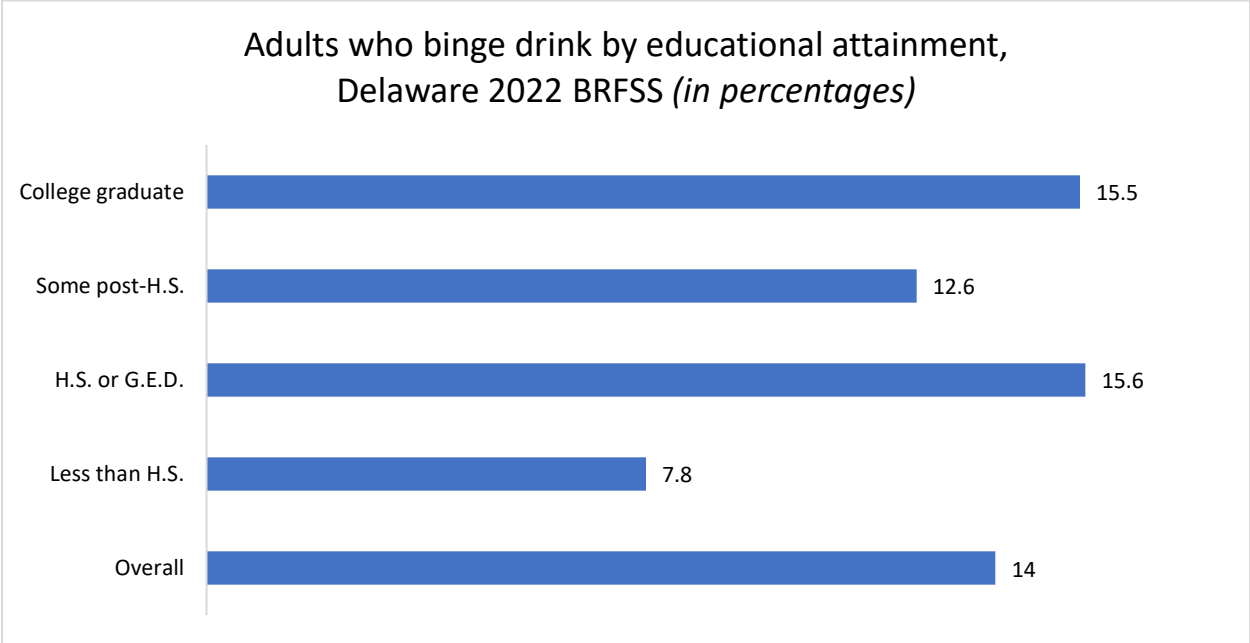


Figure 7: Adults who binge drink by educational attainment, DE BRFSS 2022

Delaware School Survey (DSS)⁸

The [Delaware School Surveys \(DSS\)](#) are state-funded annual surveys administered to 5th, 8th, and 11th grade public school students throughout Delaware. There are two versions of the survey, one for 5th grade students and a secondary version for 8th and 11th graders. The DSS are designed to provide estimates of youth substance use and related factors. DSS data are used for National Outcomes Measures as well as state and local program planning and evaluation.⁹ The charts in this section highlight select data from the 2023 DSS.

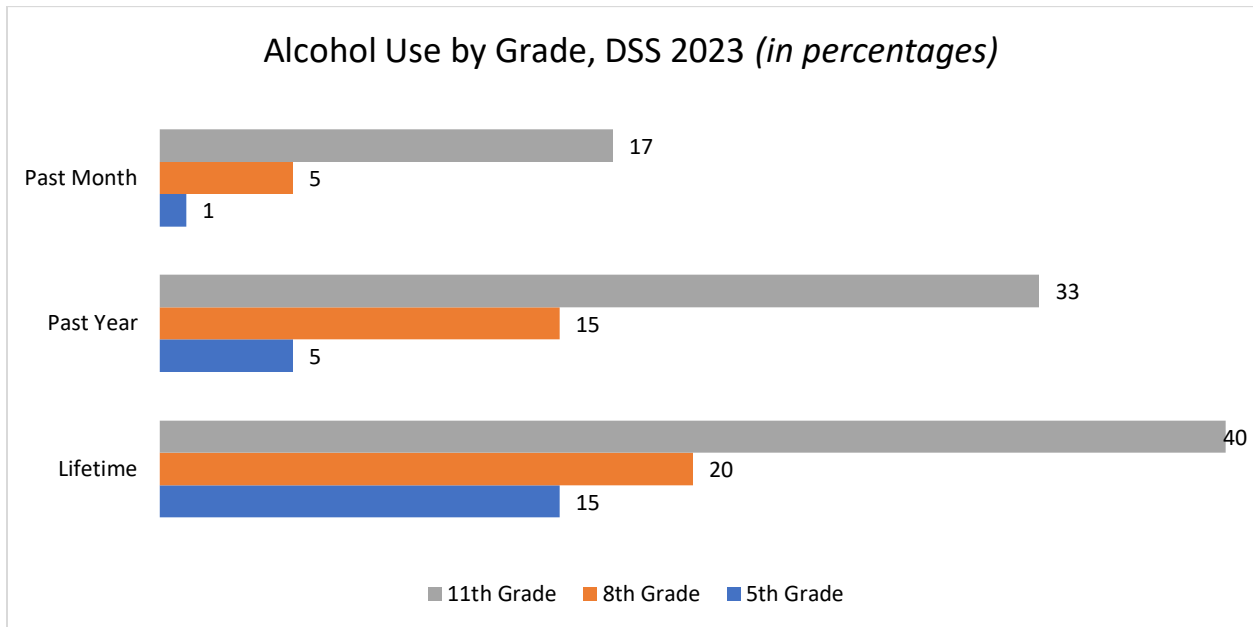


Figure 8: Alcohol use by grade, DSS 2023

Not surprisingly, reported use of alcohol across all time frames increases with age. In 2023, 15% of 5th graders reported having at least one drink of alcohol at some point in their life, and 17% of 11th graders reported drinking alcohol in the past month, signifying that alcohol remains one of the most common substances used by teens.

⁸ Source: Center for Drug & Health Studies. (2023). [Delaware School Surveys](#). University of Delaware.

⁹ For more information or to review the survey questionnaires and earlier reports, visit the [DSS page of the University of Delaware Center for Drug and Health Studies website](#). Due to the data gap in 2020 as well as the changes in the administration methodology related to the COVID-19 pandemic, results of the 2023 DSS should be compared with caution to previous survey results. For more information regarding pandemic impacts on school survey data collected by CDHS, readers can visit the Companion Guide that accompanies this profile accessible from the [Epidemiological Reports and Products page](#).

When considering alcohol use by gender, 8th grade students who identify as nonbinary report the highest rates of lifetime alcohol use (30%).^{10, 11} Girls are more likely to report past month (7%), past year (17%), and lifetime use (23%) than boys (4%, 10%, and 15% respectively).

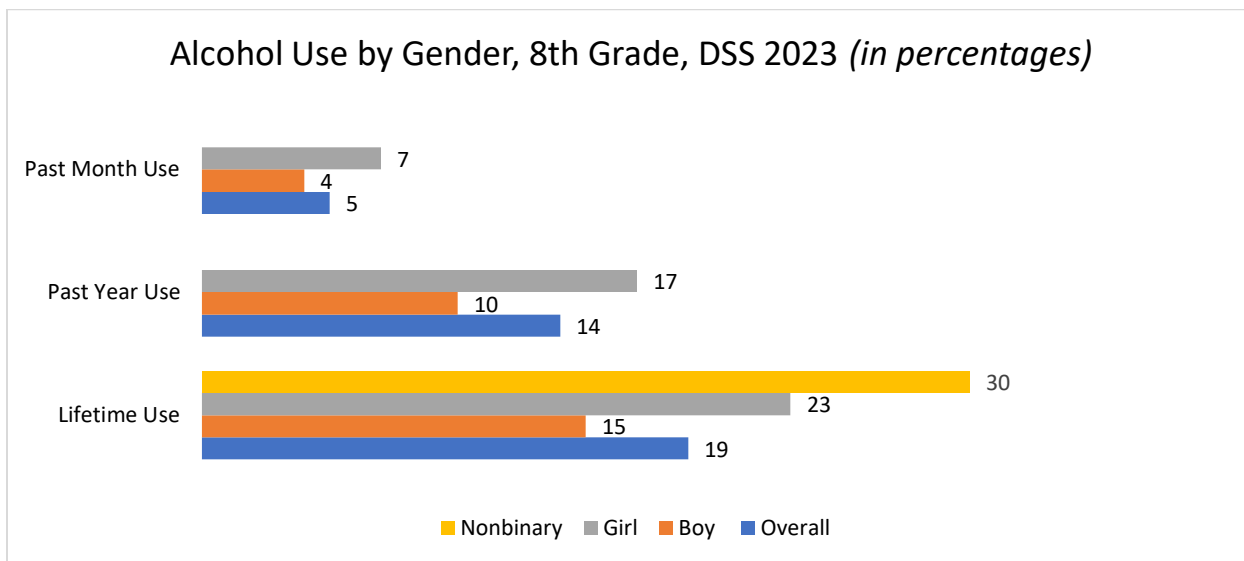


Figure 9: Alcohol use by gender, 8th grade, DSS 2023

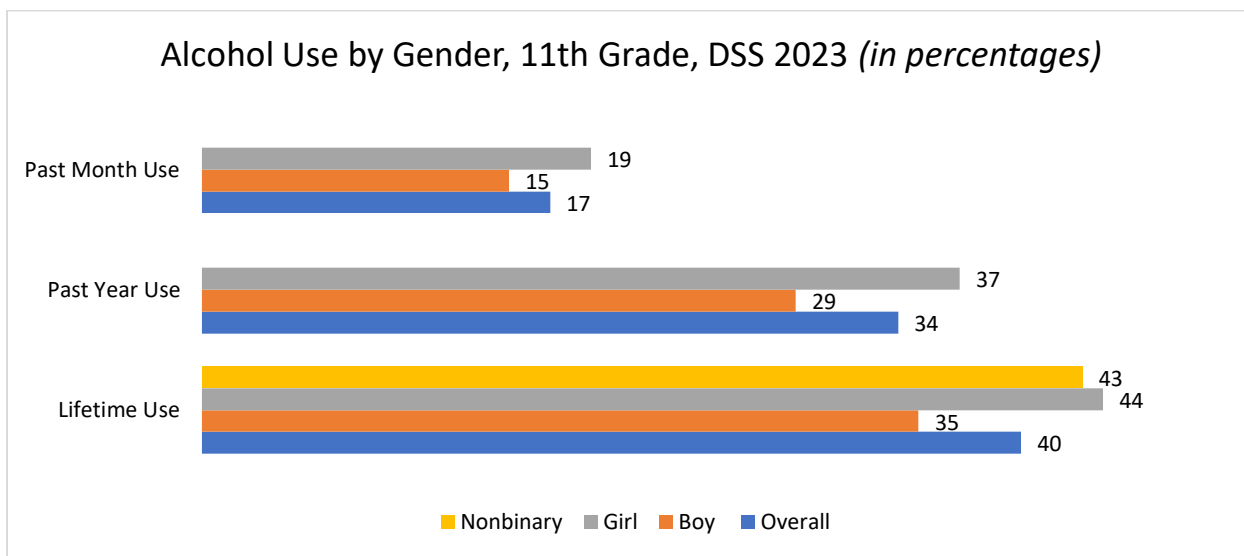


Figure 10: Alcohol use by gender, 11th grade, DSS 2023

¹⁰ In the 2023 DSS Secondary survey, students are asked to identify their gender as boy, girl, nonbinary, or to self-describe their gender. Data reported from the DSS by gender here reflects three primary categories (boy, girl, and nonbinary/self-describe) and students' responses are reported by their self-identified gender. As a result, the categories of "boy" and "girl" may include both cisgender and transgender students. For more detailed information about nonbinary and transgender students in the DSS, please visit the module on Gender and Sexuality.

¹¹ Prevalence rates are not available for any group if the number of respondents in a cell is below the CDHS threshold for data reporting (less than 30 students).

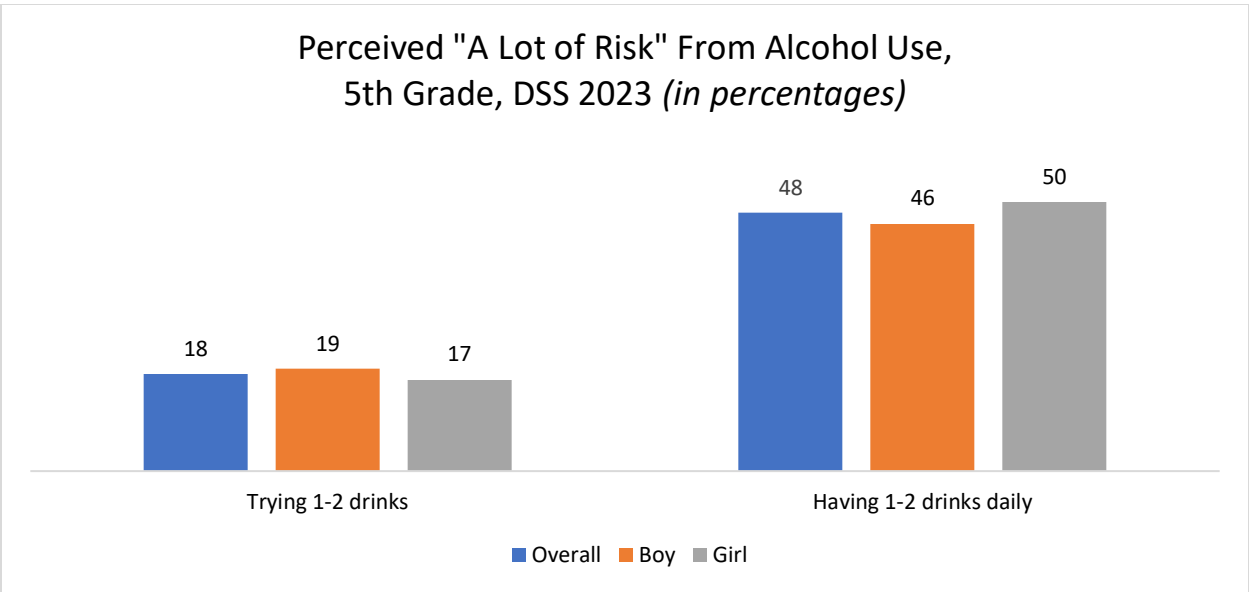


Figure 11: Perception of risk from alcohol use, 5th grade, DSS 2023

A person’s perception of the risk of harm related to certain behaviors can serve as a protective factor. Only 18% of 5th graders indicate that they perceived “a lot of risk” from trying one or two drinks while nearly half (48%) believe there is such risk in drinking daily. Only one in three 8th graders and less than half of 11th graders (44%) perceive great risk in binge drinking frequently. Students of both grades who identify as nonbinary are more likely to perceive these as potentially harmful behaviors.

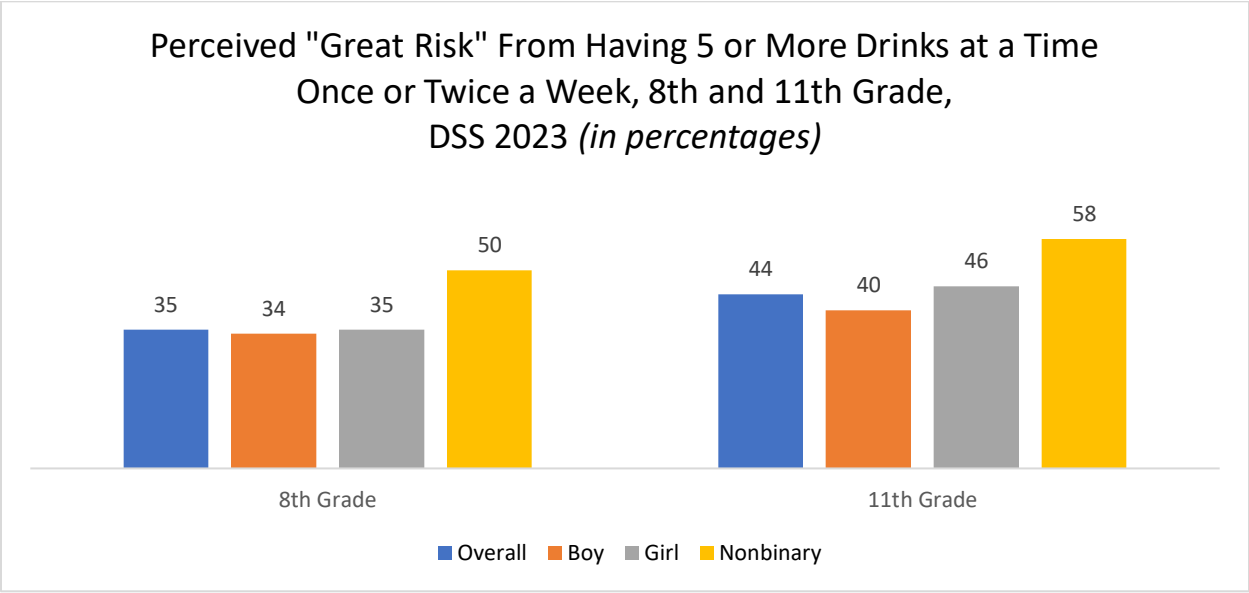


Figure 12: Perception of risk from alcohol use, 8th and 11th grade, DSS 2023

Youth Risk Behavior Survey¹²

The [Youth Risk Behavior Survey](#) (YRBS) is a CDC-funded survey that is administered in odd-numbered years to both national and state samples of students. The survey monitors various topics of health risk behaviors, including substance use. Delaware has participated in these surveys for over 20 years. The following charts include findings regarding alcohol use from the 2021 Delaware YRBS among middle and high school students.¹³

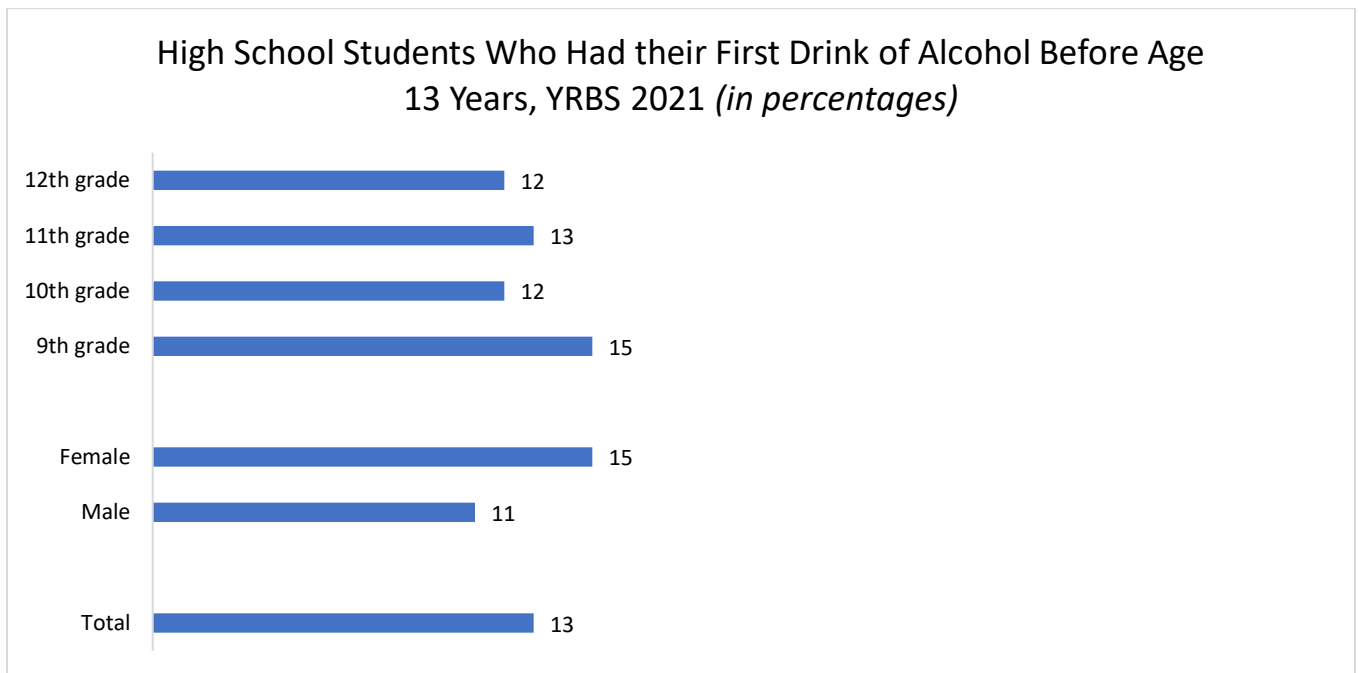


Figure 13: High school students who had their first drink of alcohol before age 13, YRBS 2021

In 2021, 13% of high school students responding to the YRBS indicated that they had had their first drink of alcohol before age 13. Older students were more likely to report current alcohol use as well as binge drinking. There were several differences noted when analyzing alcohol use by gender. Female students reported higher rates of current drinking compared to male students (26% and 15% respectively). More than one in ten female respondents reported binge drinking (11%), nearly double the rate of male respondents (6%).

¹² Source: Centers for Disease Control and Prevention (CDC). 1991 – 2021 Youth Risk Behavior Survey Data. Available at <https://nccd.cdc.gov/Youthonline/App/Default.aspx>.

¹³ Until the 2023 YRBS data is analyzed, comparisons of the 2021 data to previous data should be avoided, as findings from the 2021 data may be an exception to ongoing trends. For a more detailed description of pandemic impacts on data collection as it pertains to the YRBS, please refer to the Companion Guide accompanying this report, accessible online from the [Epidemiological Reports and Products page](#).

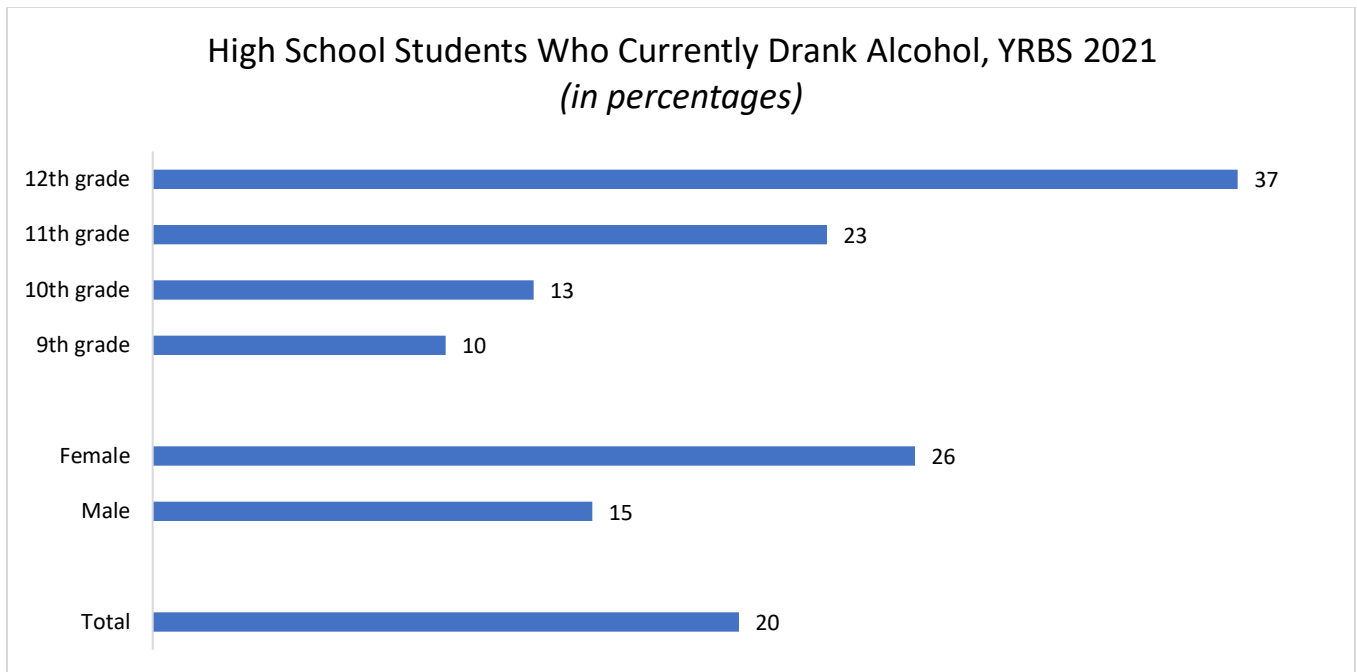


Figure 14: High school students who currently drank alcohol¹⁴, YRBS 2021

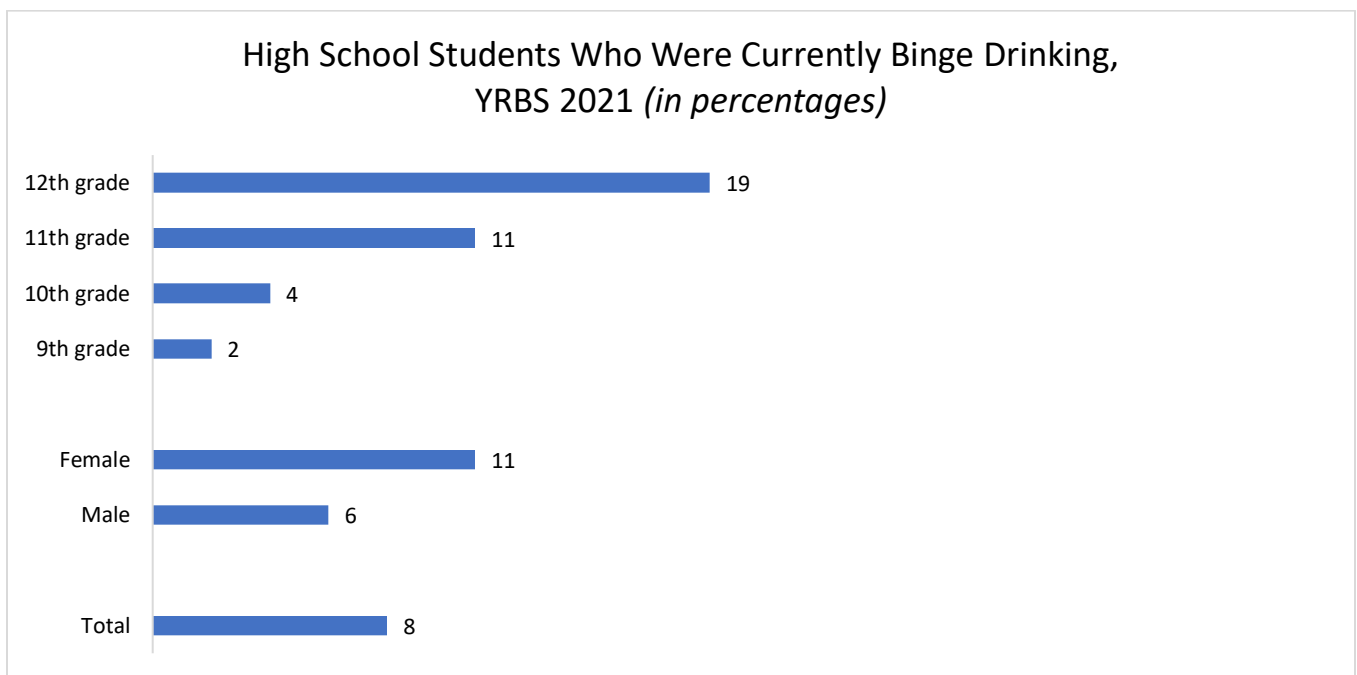


Figure 15: High school students who were currently binge drinking¹⁵, YRBS 2021

¹⁴ Currently drank alcohol is defined in the YRBS as having at least 1 drink of alcohol, on at least 1 day during the 30 days before the survey.

¹⁵ Current binge drinking is defined in the YRBS as 4 or more drinks in a row for females or 5 or more drinks of alcohol in a row for males, within a couple of hours, on at least 1 day during the 30 days before the survey.

In 2021, 7% of middle school students reported that they had had their first alcoholic drink before age 11. One in five 8th graders reported that they had used alcohol at some point in their lifetime.

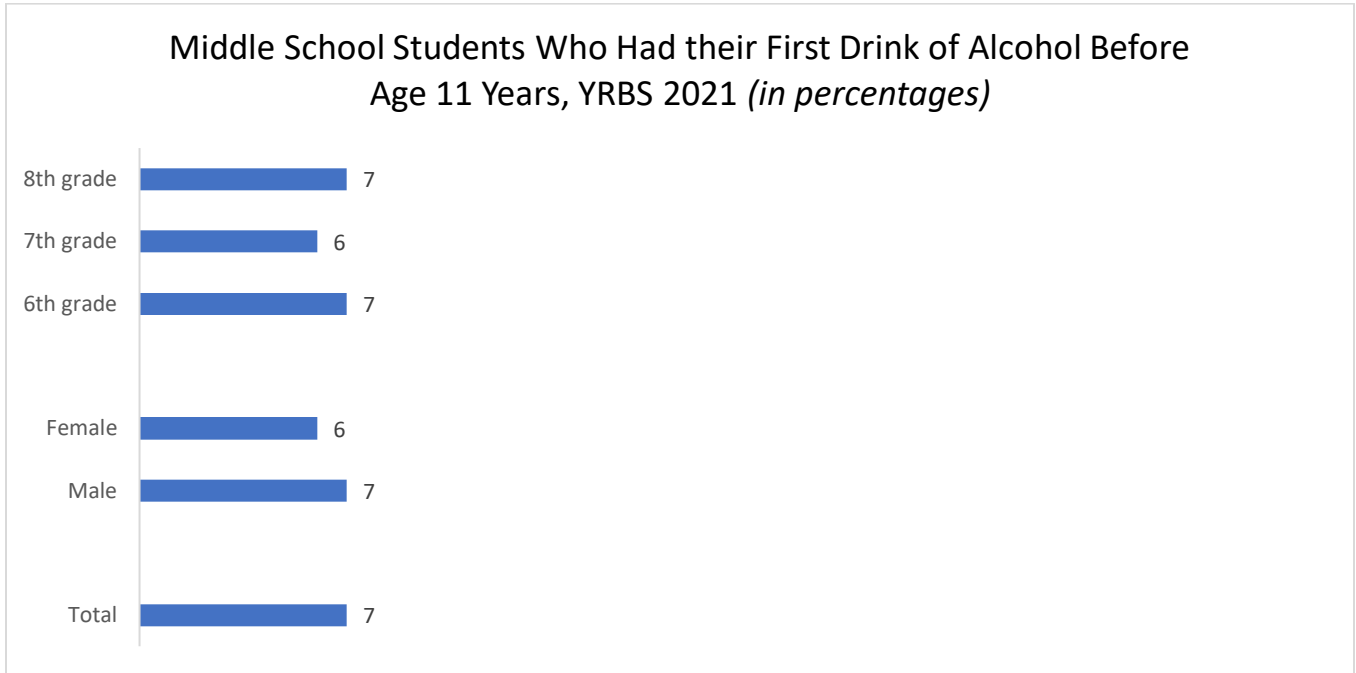


Figure 16: Middle school students who had their first drink before age 11 years, YRBS 2021

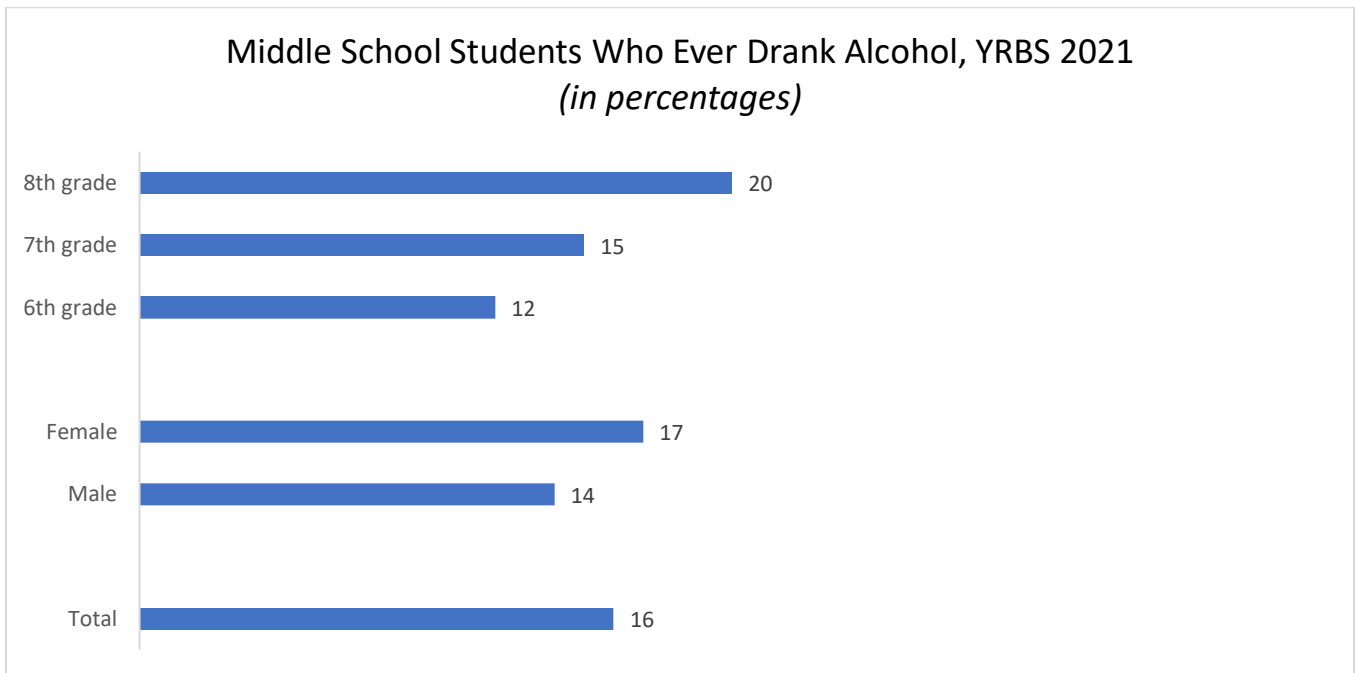


Figure 17: Middle school students who ever drank alcohol, YRBS 2021

Health and Safety Consequences

The consequences of excessive alcohol use have considerable public health implications:

- In 2020-2021, the [CDC Alcohol-Related Disease Impact \(ARDI\) portal](#) estimates an annual average of 561 deaths in Delaware attributable to chronic or acute causes related to excessive alcohol use. This is greater than the previous annual average of 466 attributable deaths between 2015-2019. Alcohol-related deaths are more common among males than females (an annual average of 387 compared to 174).
- In 2021, alcohol only was the primary substance identified in 8.9% of publicly funded treatment admissions and it was identified with a secondary drug in an additional 7.8% of admissions. ([Delaware Treatment Admissions Dataset](#), 2021).
- In 2023, 4% of all traffic crashes in Delaware involved alcohol and one in four fatal crashes involved alcohol. This was lower than the previous year, when 36% of all fatal crashes were alcohol-involved. Thirty-five fatalities and 424 injuries were associated with these accidents ([Delaware State Police, Delaware Information and Analysis Center](#), 2024).
- 2,816 driving under the influence (DUI) arrests were made statewide in 2023. (Delaware State Police, Delaware Information and Analysis Center, 2024).

Delaware Driving Under the Influence Arrests, 2023			
Age Range	Male	Female	Total
15 and under	1	0	1
16	3	2	5
17	10	3	13
18	23	7	30
19	46	5	51
20	43	9	52
21-24	279	74	353
25-34	637	236	874*
35-44	491	165	656
45-54	298	90	388
55-64	208	66	275*
65 & older	88	30	118
Total	2127	687	2816*

Figure 18: Driving under the influence arrests, by age and gender, DE State Police

*Numbers may not add up due to reports with an unknown gender.

The National Highway Traffic Safety Administration¹⁶ also tracks traffic fatalities where alcohol is involved. The chart below provides county-level data on the last five years of alcohol-related traffic fatalities.

National Highway Traffic Safety Administration Trends in Alcohol-Involved Traffic Fatalities in Delaware by County, 2018-2022

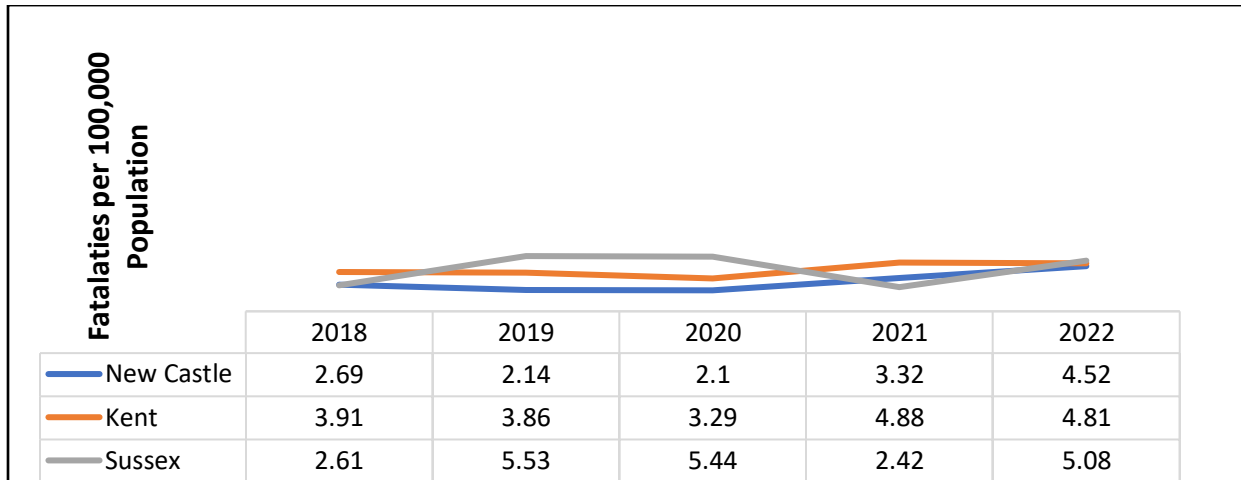


Figure 19: Trends in alcohol-involved traffic fatalities¹⁷ in Delaware by county, 2018-2022

¹⁶ Source: [National Highway Traffic Safety Administration. Performance Measures, Delaware.](#)

¹⁷ Fatalities per 100,000 population. Data note: Crash involved at least one driver or motorcycle rider with a BAC of .08 or above.

References and Data Sources

- Center for Drug & Health Studies. (n.d.) Delaware School Surveys. University of Delaware. Retrieved from <https://cdhs.udel.edu/seow/school-surveys/delaware-school-survey-dss/>
- Centers for Disease Control and Prevention. (n.d.) Alcohol-Related Disease Impact (ARDI) Application. Retrieved from https://nccd.cdc.gov/DPH_ARDI/default/default.aspx
- Centers for Disease Control and Prevention. (n.d.) Explore BRFSS Data by Location. Retrieved from <https://www.cdc.gov/brfss/brfssprevalence/index.html>
- Centers for Disease Control and Prevention. (n.d.) YRBS Youth Online. Retrieved from <https://nccd.cdc.gov/Youthonline/App/Default.aspx>
- Delaware's Annual Traffic Statistical Report 2023. (2024) Delaware State Police, Delaware Information and Analysis Center. (2023) Retrieved from <https://dsp.delaware.gov/wp-content/uploads/sites/118/2024/04/2023-Annual-Traffic-Statistical-Report.pdf>
- National Institute on Alcohol Abuse and Alcoholism. (2023) Alcohol Use Disorder (AUD) in the United States: Age Groups and Demographic Characteristics. Retrieved from <https://www.niaaa.nih.gov/alcohols-effects-health/alcohol-topics/alcohol-facts-and-statistics/alcohol-use-disorder-aud-united-states-age-groups-and-demographic-characteristics>
- National Highway Traffic Safety Administration. (n.d.) Performance Measures, Delaware. Retrieved from <https://cdan.dot.gov/#TAB1>
- Substance Abuse and Mental Health Services Administration. (n.d.) Treatment Episode Data Set: Admissions-2021. Retrieved from https://www.samhsa.gov/data/quick-statistics-results?qs_type=teds&state=Delaware&year=2021&type=Admissions&view=full
- Substance Abuse and Mental Health Services Administration. (2023). ["2021 National Survey on Drug Use and Health: Model-Based Prevalence Estimates \(50 States and the District of Columbia\)."](#)