Alcohol

The 2021 Delaware Epidemiological Profile
Substance Use, Mental Health, and Related Issues

prepared for

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

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 a grant from the Substance Abuse and Mental Health Services Administration (SAMHSA). Please address all inquiries to Laura Rapp, PhD, University of Delaware Center for Drug and Health Studies, Department of Sociology and Criminal Justice: frapp@udel.edu.
The Role of the Delaware State Epidemiological Outcomes Workgroup and the Purpose of the Epidemiological Profile

All states, including Delaware, received support from the Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Substance Abuse Prevention (CSAP) to establish a Statewide Epidemiological Outcomes Workgroup (SEOW). The Division of Substance Abuse and Mental Health (DSAMH) in the Department of Health and Social Services initially supported the SEOW through SAMHSA Strategic Prevention Framework grants and continues to sponsor the SEOW with SAMHSA funding. 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 representatives from over 50 State and nonprofit agencies, community organizations, advocacy groups, and other entities. Formerly known as the Delaware Drug and Alcohol Tracking Alliance (DDATA), the SEOW’s mission is to bring data on behavioral health and associated issues to the forefront of prevention and treatment by pursuing the following goals:

- To build monitoring and surveillance systems to identify, analyze, and profile data from state and local sources;
- To provide current benchmarks, trends, and patterns of substance abuse consumption and consequences;
- To create data-guided products that inform prevention and treatment planning and policies;
- To train agencies and communities in understanding, using, and presenting data effectively.

The annual Delaware State Epidemiological Profile is a valuable data resource for strategic planning, decision-making, and evaluation. Using data that are available on an ongoing basis, the report highlights 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 chapter provides an overview of alcohol use throughout the state. To review the complete report, slides, infographics, and other SEOW data products, please visit the UD Center for Drug and Health Studies Delaware Epidemiological Reports page. Video recordings of select SEOW presentations referenced in this report are also available online.
SEOW Collaborators

Thank you for your participation and commitment to data-driven prevention planning, practice, and evaluation! We are especially grateful to the team at the Delaware Division of Substance Abuse and Mental Health for their guidance and collaboration.

atTAcK Addiction
Bellevue Community Center
Christiana Care Health System
Colonial School District
Delaware Academy of Medicine/Delaware Public Health Association
Delaware Afterschool Network
Delaware Center for Justice
Delaware Coalition Against Domestic Violence
Delaware Council on Gambling Problems
Delaware Courts - Office of the Child Advocate
Delaware Criminal Justice Council
Delaware Criminal Justice Information System
Delaware Department of Education
Delaware Department of Services for Children, Youth and their Families
Division of Prevention and Behavioral Health Services
Delaware Department of Health and Social Services
Division of Medicaid and Medical Assistance
Division of Public Health
Division of Services for Aging and Adults with Physical Disabilities
Division of Substance Abuse and Mental Health
Delaware Department of Safety and Homeland Security
Delaware State Police
Division of Alcohol and Tobacco Enforcement
Division of Forensic Science
Delaware Department of State
Delaware Office of Controlled Substances
Division of Professional Regulation, Prescription Monitoring Program
Delaware Domestic Violence Coordinating Council
Delaware Guidance Services
Delaware Information and Analysis Center
Delaware Multicultural and Civic Organization
Delaware Prevention Coalition
Delaware State Board of Education
Holcomb BHS/Open Door, Inc.
KIDS COUNT in Delaware, University of Delaware Center for Community Research & Service
La Esperanza Community Center
Latin American Community Center
Mental Health Association in Delaware
Milford School District
NAMI Delaware
Nemours Health and Prevention Services
New Castle County Police Department
Planned Parenthood of Delaware
Red Clay Consolidated School District
Sun Behavioral Delaware
Sussex County Health Coalition
Transitions Delaware
Trauma Matters Delaware
United Way of Delaware
University of Delaware
College of Health Sciences
College of Arts and Sciences
Partnership for Healthy Communities
Student Health & Wellness Promotion
Wesley College
West End Neighborhood House
Wilmington University

SEOW Facilitator Team at the University of Delaware Center for Drug and Health Studies: Cheryl Ackerman, Jessica Arnold, Rochelle Brittingham, David Borton, Darryl Chambers, Miller Finkelstein, Bill Gratton, Stephanie Ha, James Hightberger, Dana Holz, Steve Martin, Sharon Merriman-Nai, Dan O’Connell, Laura Rapp, Rachel Ryding, Meisje Scales, Rachael Schilling, Eileen Sparling, Wenjin Wang.

If your organization is interested in becoming an SEOW Collaborator, please contact Meisje Scales at: mjscales@udel.edu.
### Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Figures</td>
<td>iii</td>
</tr>
<tr>
<td>Notes on Data Reporting and Interpretation</td>
<td>iv</td>
</tr>
<tr>
<td><strong>1. Alcohol</strong></td>
<td></td>
</tr>
<tr>
<td>National Overview</td>
<td>1-1</td>
</tr>
<tr>
<td>Delaware Overview</td>
<td>1-2</td>
</tr>
<tr>
<td>Data in Action: Alcohol During the COVID-19 Pandemic</td>
<td>1-4</td>
</tr>
<tr>
<td><strong>2. References</strong></td>
<td></td>
</tr>
<tr>
<td>Alcohol 2-1</td>
<td>2-1</td>
</tr>
<tr>
<td>Data Sources</td>
<td>2-4</td>
</tr>
</tbody>
</table>
Table of Figures

Figure 1: Alcohol use in Delaware by age group........................................................................1-5
Figure 2: Alcohol use, 8th graders .........................................................................................1-6
Figure 3: Average age of onset\(^1\) of alcohol use, 8th and 11th grades\(^2\) .................................1-7
Figure 4: Alcohol use by sex, DE adults..................................................................................1-8
Figure 5: Alcohol use by race and ethnicity, DE adults............................................................1-8
Figure 6: Alcohol use by educational attainment, DE adults...................................................1-9
Figure 7: Alcohol use by age group, DE adults......................................................................1-9
Figure 8: Trends in past month alcohol use, 8th and 11th graders ........................................1-10
Figure 9: Trends in binge drinking, 8th and 11th graders.........................................................1-11
Figure 10: Trends in alcohol use, past-month, HS ....................................................................1-12
Figure 11: Alcohol use, past month, by age group and region..................................................1-13
Figure 12: Alcohol use, binge drinking, past month, by age group and region.........................1-14
Figure 13: Alcohol use, binge drinking, past-month, ages 12-20 by region...............................1-15
Figure 14: National trends in past 30-day alcohol use, 8th, 10th, and 12th grade....................1-16
Figure 15: Trends in perception of a “lot of risk” from drinking daily, 5th graders....................1-17
Figure 16: Trends in perception, “great risk” from having 5 or more drinks, 8th & 11th graders.1-18
Figure 17: Perception of great risk from having five or more drinks once or twice a week, age
  group and region......................................................................................................................1-19
Figure 18: Trends in students who ever rode with a driver who had been drinking, MS ..........1-20
Figure 19: Trends in reported drinking and driving in past month, 11th graders......................1-21
Figure 20: Delaware DUI arrests by age and sex ......................................................................1-22
Figure 21: Trends in Delaware traffic fatalities/alcohol use by county ....................................1-23
Notes on Data Reporting and Interpretation

In order to protect the anonymity of respondents and to ensure that the data reported meet certain statistical standards, the Center for Drug and Health Studies (CDHS) at the University of Delaware has established a set of guidelines for reporting and interpreting data from surveys that it administers to students across the state. As a result, in the Delaware State Epidemiological Profile, data in some tables and figures may be aggregated or otherwise reported differently than in years prior. The following notes summarize the guidelines for interpreting data presented in this report and provide an overview of changes relevant to this year:

- **Reporting small numbers:** For any estimate where the raw number of responses is less than 30, no statistical estimates are reported. Statistics computed from such a small proportion of the total number of students may be unreliable, inflating the significance of existing relationships in the data, and among some special populations, may put individuals at risk of being identified. In some data products such as our heat maps, multiple years of data have been combined in order to increase the sample sizes to a reportable figure.

- **Rounding:** All figures from Delaware School Survey (DSS) are rounded to the nearest whole percent. As such, in some cases the cells in a table may add up to slightly more or less than 100%.

- **Missing Observations:** In our analysis, any missing observations (responses) are not calculated into the total percentages. Because different questions have varying numbers of missing responses, the total sample size and percent missing may fluctuate slightly from question to question. This is due to a few factors:
  - Students may not answer all questions on a survey, particularly those towards the end if they run out of time or they tire of answering questions.
  - Students may also skip or decide not to respond to certain questions for various reasons (e.g., if they fear their responses will not be kept confidential; if they consider the question too personal or sensitive; if they do not understand the question; etc.)

- **Discrepancies in Reporting:** In some instances, there may be slight differences in estimates reported by the Center for Drug and Health Studies compared to those reported by other state or federal entities for the same data source. In most cases this is due to differing practices in rounding or handling missing observations in the data and does not substantially impact the overall prevalence estimates, trends, and relationships among these data points.

- **Statistical Significance:** Unless otherwise indicated, all reported correlations between variables are statistically significant at the p<.05 level. Null hypothesis testing, used to estimate statistical significance, provides an estimate of the likelihood that the relationship between two indicators is not due to random chance. If the p-value for a
given crosstab is less than .05, this suggests that in 95% of cases, the correlation between the relevant variables is because there is a relationship between them.

- **Weighted Data:** Weighting data is a correction technique that compensates for nonresponses, helps correct for unequal probabilities of being selected within the sample, and helps ensure that the sample drawn is representative of the Delaware student population. If data is weighted, there will be a notation indicating the data is weighted for the specific fact, figure, or table.
  - **A note about 2019 Youth Risk Behavior Survey (YRBS) Data:** In previous years, Delaware received weighted Delaware YRBS survey data from the CDC for both middle and high school samples. However, during the 2019 administration, participation rates for the Delaware high school survey did not meet the required threshold for weighting the data. Therefore, this report only includes 2019 middle school findings from the YRBS. Whenever available, trend data from the CDC Youth Online Data Portal is also reported. Additional high school YRBS data from previous years may be requested by following the Delaware Division of Public Data Information & Request Process.

- **Pandemic Impacts on Data Collection:** In 2020, the advent of the COVID-19 pandemic and subsequent school closures and shifts to remote learning greatly impacted our ability to collect school survey data. As a result, in 2020, we are unable to report any data from the Youth Tobacco Survey (YTS) for middle or high school, or from the Delaware School Survey (DSS) for 5th and 11th graders. We are, however, able to report figures from the 8th grade Delaware School Survey, based on responses from 3,799 respondents.
1. Alcohol

**National Overview**

There are serious public health and social costs that stem from alcohol use and addiction. One national study found that approximately $250 billion in costs were associated with excessive drinking in the U.S. in 2010 (Sacks et al., 2015). More recently, a report by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) found that nearly one million people had died of alcohol-related causes between 1999 and 2017 in the U.S. (National Institutes of Health, 2020). Frequent drinking can lead to alcohol use disorder (AUD), which can reduce daily functioning, impair social relationships, and lead to critical health outcomes. Data from the National Survey of Drug Use and Health (NSDUH) indicate that one in 20 people age 12 and over in the U.S. fit the criteria for an alcohol use disorder (Substance Abuse and Mental Health Services Administration [SAMHSA], 2020). Long-term alcohol use has been linked to a number of chronic and deadly conditions, including diseases of the liver and pancreas, various types of cancers, and risk of stroke (Rehm et al., 2009). Infants of mothers who drink during pregnancy are at great risk for developing Fetal Alcohol Spectrum Disorder which can lead to severe complications including lifelong developmental delays and disabilities (Streissguth et al., 2004). The NSDUH reports that adult rates of past-month alcohol use, although relatively stable, hover at about 50% (SAMHSA, 2020); however, a research review by the National Institute of Alcohol Abuse and Alcoholism (NIAAA) indicates that women’s rates of drinking and binge drinking have increased over the past several decades (NIAAA, 2021) in comparison to men’s rates among certain age groups. High school youth reports of past-month use declined from 50% in 1999 to 29.2% in 2019 (National Youth Risk Behavior Survey, Centers for Disease Control and Prevention, n.d.). While the downward trend of alcohol use over the past 20 years is heartening, alcohol remains a substance of choice for both teens and adults with serious public health implications.

Early research suggests that substance use and mental health issues increased during the COVID-19 pandemic (Czeisler et al., 2020; Czeisler et al., 2021). Although most of the data included in this chapter were collected prior to 2020, it will be important to consider this lens when interpreting these data in the future.
Delaware Overview

Understandably, a great deal of attention in recent years has focused on opioid misuse in Delaware. Among students, however, alcohol remains the most commonly reported substance used. The most recently available data from the Delaware School Survey (DSS, 2019) indicates that one in four 11th graders drank alcohol in the previous month. In 2020, 7% of 8th graders reported that they drank alcohol in the past month (DSS, 2020). Though alcohol use among Delaware students declined over the past five years, mirroring national trends, student surveys show that too many students still do not adequately understand the risks involved with alcohol consumption. In 2019, only half of Delaware 11th graders surveyed indicated that they believed there is a “great risk” in binge drinking, and 8% reported binge drinking within the past two weeks (DSS, 2019). In the same survey, 5% reported drinking and driving within the past month, while 14% reported drinking and driving at some time in their lifetime. Of note, only 37% of 8th graders identified binge drinking as a great risk in the 2020 DSS, down from 49% the preceding year.

The use of alcohol at an early age has been linked to future alcohol dependence and a greater likelihood of using illicit substances later in life (Barry et al., 2016). According to the DSS, the average age by which 8th graders started drinking decreased from 12.6 years of age in 2019 to 11.8 years of age in 2020 (DSS, 2020).

Alcohol consumption also remains prevalent among Delaware adults with more than half (57%) reporting current use (Behavioral Risk Factor Surveillance System [BRFSS], 2019). According to the National Survey of Drug Use and Health (NSDUH), more than one in three Delaware adults between the ages of 18-25 reported binge drinking within the past month (2018-2019). In 2019, the Treatment Episode Data Set (TEDS) indicates that alcohol was the primary substance reported at admission among 10.7% of clients receiving publicly funded treatment in Delaware, and it was identified as a secondary substance in another 8.2% of admissions (for additional details on TEDS data, please see Chapter 6: Other Illegal Drugs.)

The potential risks related to alcohol misuse can be great. In 2020, 4% of all traffic crashes in Delaware were alcohol-related. Thirty percent of traffic fatalities and 7% of traffic-related injuries were associated with crashes involving alcohol, and 2,478 driving under the influence (DUI) arrests were made statewide (Delaware State Police, Delaware Information and Analysis Center, 2021).¹

¹ While there was a slight decline among DUIs and alcohol-involved crashes from 2019, traffic activity was unusual in 2020 due to COVID-19 pandemic and the ensuing stay-at-home orders, shifts to remote education and work environments, business closings, and other conditions.
Binge drinking, in particular, is associated with an increased risk of victimization. Data from the 2018 College Risk Behavior Survey show that approximately one out of five University of Delaware students who reported that they frequently binge drink alcohol (consume five or more drinks in a single sitting) also reported being a victim of assault, compared to approximately one in 16 students who reported abstaining from alcohol use. Students who reported binge drinking also reported higher rates of sexual assault (Center for Drug and Health Studies, 2017). Nationally, researchers have consistently shown a clear association between alcohol use and intimate partner violence (Deveries et al., 2013). However, it is important to note that this type of survey data does not allow us to draw conclusions that binge drinking causes victimization or that being victimized causes binge or frequent drinking; it simply shows that students who experience one are more likely to experience the other.
Data in Action: Alcohol During the COVID-19 Pandemic

By the middle of March 2020, local and state governments across the U.S. implemented stay-at-home orders in response to the global coronavirus pandemic. This included the temporary closure of non-essential businesses and restrictions on social gatherings. Some experts were concerned that conditions of the pandemic, such as increased isolation, would trigger riskier drinking habits since individuals would be able to drink at home alone or to cope with stress and uncertainty (Smith, 2020). Others suggested that individuals might have consumed less because they were no longer attending social gatherings where alcohol is normally present (Furnari, 2020). As people prepared to stay at home indefinitely and could not dine indoors at restaurants and bars, retail sales of alcohol spiked across the U.S. (Bremner, 2020; Micallef, 2020). Many states, including Delaware, allowed restaurants serving carry out meals to also sell alcoholic beverages to-go (Cormier, 2020). Over a year later, COVID-19 vaccines have become available and many have been distributed across the U.S., leading to a return of some normalcy (e.g., some individuals returning to work and school settings, attending in-person events, etc.). However, the pandemic is still highly prevalent, with variants of the virus emerging and sustained uncertainties relating to mask regulations, social distancing procedures, and limitations on social gatherings.

Researchers with RTI collected data regarding people’s drinking habits in February 2020 (prior to the pandemic and government-issued stay-at-home orders in the U.S.), then in April, July, and November that year. They found that the COVID-19 pandemic is associated with increases in alcohol consumption, specifically among Black and Hispanic women, Black men, people with children, and people with mental health issues (Barbosa, Dowd, and Karriker-Jaffe, 2021). Another team of researchers found that one-third of the 832 online respondents reported binge drinking during the pandemic, and 60% reported increased drinking. Respondents who reported experiencing COVID-19 related stress reported higher levels of consumption and more frequent drinking (Grossman, Benjamin-Neelon, & Sonnenschein, 2020).

Increased alcohol consumption during the pandemic is of great concern not only for potential long-term implications, but also because drinking is associated with various diseases and mental health disorders which may lead to increased risk for COVID-19 (WHO, 2020). It will be important to monitor alcohol consumption, particularly among marginalized communities, and focus on preventing and mitigating the consequences of increased drinking during the pandemic. Additionally, it would be of interest to continue monitoring changes since public spaces have begun opening back up in the U.S. and more individuals are attending social gatherings.
# National Survey on Drug Use and Health

## Alcohol Use in Delaware, by Age Group, 2018-2019

(annual average percentages)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Total 12 or Older</th>
<th>12-17</th>
<th>18-25</th>
<th>26 or Older</th>
<th>12-20&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALCOHOL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past-Month Alcohol Use</td>
<td>56.44</td>
<td>10.09</td>
<td>59.09</td>
<td>60.93</td>
<td>20.59</td>
</tr>
<tr>
<td>Past-Month Binge Alcohol Use&lt;sup&gt;b&lt;/sup&gt;</td>
<td>24.17</td>
<td>4.50</td>
<td>34.86</td>
<td>24.73</td>
<td>11.03</td>
</tr>
<tr>
<td>Perceived Great Risk of Drinking 5 or More Drinks Once or Twice a Week</td>
<td>42.85</td>
<td>42.58</td>
<td>37.57</td>
<td>43.62</td>
<td>--</td>
</tr>
</tbody>
</table>

Figure 1: Alcohol use in Delaware by age group

Notes:

“--” Not available, estimates have not been released by NSDUH.

<sup>a</sup> Estimates are based on a survey-weighted hierarchical Bayes estimation approach.

<sup>b</sup> 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.

<sup>c</sup> Underage drinking is defined for persons aged 12 to 20.

### 2020 Delaware School Survey
#### Alcohol Use among Delaware 8th Graders
(in percentages)

![Graph showing alcohol use among Delaware 8th graders](image)

<table>
<thead>
<tr>
<th></th>
<th>Lifetime Use</th>
<th>Past Year Use</th>
<th>Past Month Use</th>
<th>Binge Use</th>
<th>Perceived Great Risk from 5 or More Drinks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statewide</strong></td>
<td>24</td>
<td>17</td>
<td>7</td>
<td>1</td>
<td>37</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td>20</td>
<td>14</td>
<td>6</td>
<td>-</td>
<td>33</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>28</td>
<td>21</td>
<td>9</td>
<td>2</td>
<td>41</td>
</tr>
</tbody>
</table>

**Figure 2:** Alcohol use, 8th graders

**Notes:**
- "-" indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.
- Binge drinking defined as 4 or more drinks of alcohol in a row for female students and 5 or more drinks of alcohol in a row for male students in the past two weeks (Previously binge use was reported as 3 or more drinks).
- * Unless otherwise noted, all estimates are statistically significant at the p<.05 level.


[Back to table of figures]
2020 Delaware School Survey
Average Age of Onset for Alcohol Use

<table>
<thead>
<tr>
<th>8th Grade</th>
<th>11th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.8 years</td>
<td>_</td>
</tr>
</tbody>
</table>

Figure 3: Average age of onset\(^1\) of alcohol use, 8th and 11th grades\(^2\)

Notes:
\(^1\) Age of onset calculated among students who report ever drinking alcohol
\(^2\) In 2020, 11th grade Delaware School Survey data was unavailable.


[Back to table of figures]
## 2019 Delaware Behavior Risk Factor Surveillance System (BRFSS)

### Alcohol Use by Sex Among Delaware Adults

<table>
<thead>
<tr>
<th>Sex</th>
<th>Current Drinking</th>
<th>Binge Drinking</th>
<th>Heavy Drinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>57.0%</td>
<td>17.2%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Male</td>
<td>61.3%</td>
<td>22.1%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Female</td>
<td>53.0%</td>
<td>12.8%</td>
<td>7.2%</td>
</tr>
</tbody>
</table>

Figure 4: Alcohol use by sex, DE adults

### Alcohol Use by Race and Ethnicity Among Delaware Adults

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Current Drinking</th>
<th>Binge Drinking</th>
<th>Heavy Drinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>57.0%</td>
<td>17.2%</td>
<td>7.3%</td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>60.4%</td>
<td>18.8%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>53.9%</td>
<td>14.3%</td>
<td>-</td>
</tr>
<tr>
<td>Hispanic</td>
<td>41.6%</td>
<td>13.7%</td>
<td>-</td>
</tr>
<tr>
<td>American Indian or Alaskan Native, non-Hispanic</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Figure 5: Alcohol use by race and ethnicity, DE adults

Notes:
- Prevalence estimate not available if the unweighted sample size for the denominator was <50 or the Relative Standard Error (RSE) is >0.3 or if the state did not collect data for that calendar year.
- **Current drinking** is defined by the BRFSS as at least one drink of alcohol within the past 30 days.
- **Binge drinking** is defined in the BRFSS as 4 or more drinks for a woman or 5 or more drinks for a man on an occasion during the past 30 days.
- **Heavy drinking** is defined by the BRFSS as more than 7 drinks per week for women or more than 14 drinks per week for men.


Back to table of figures
## 2019 Delaware Behavior Risk Factor Surveillance System (BRFSS)

### Alcohol Use by Educational Attainment Among Delaware Adults

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Current Drinking</th>
<th>Binge Drinking</th>
<th>Heavy Drinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>57.0%</td>
<td>17.2%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Less Than High School</td>
<td>33.5%</td>
<td>10.9%</td>
<td>-</td>
</tr>
<tr>
<td>High School / G.E.D.</td>
<td>48.0%</td>
<td>17.8%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Some Post-H.S.</td>
<td>61.1%</td>
<td>20.1%</td>
<td>11.0%</td>
</tr>
<tr>
<td>College Graduate</td>
<td>70.9%</td>
<td>16.2%</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

Figure 6: Alcohol use by educational attainment, DE adults

## Alcohol Use by Age Group Among Delaware Adults

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Current Drinking</th>
<th>Binge Drinking</th>
<th>Heavy Drinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>57.0%</td>
<td>17.2%</td>
<td>7.3%</td>
</tr>
<tr>
<td>18 - 24</td>
<td>57.3%</td>
<td>31.5%</td>
<td>12.7%</td>
</tr>
<tr>
<td>25 - 34</td>
<td>64.8%</td>
<td>28.6%</td>
<td>7.2%</td>
</tr>
<tr>
<td>35 - 44</td>
<td>61.4%</td>
<td>18.2%</td>
<td>7.4%</td>
</tr>
<tr>
<td>45 - 54</td>
<td>62.2%</td>
<td>15.9%</td>
<td>7.4%</td>
</tr>
<tr>
<td>55 - 64</td>
<td>54.9%</td>
<td>13.7%</td>
<td>7.0%</td>
</tr>
<tr>
<td>65 and Older</td>
<td>47.0%</td>
<td>5.7%</td>
<td>4.9%</td>
</tr>
</tbody>
</table>

Figure 7: Alcohol use by age group, DE adults

Notes:
- Prevalence estimate not available if the unweighted sample size for the denominator was <50 or the Relative Standard Error (RSE) is >0.3 or if the state did not collect data for that calendar year.
- Current drinking is defined by the BRFSS as at least one drink of alcohol within the past 30 days.
- Binge drinking is defined in the BRFSS as 4 or more drinks for a woman or 5 or more drinks for a man on an occasion during the past 30 days.
- Heavy drinking is defined by the BRFSS as more than 7 drinks per week for women or more than 14 drinks per week for men.


Back to table of figures
Delaware School Survey
Trends in Delaware Students’ Self-Reported Past Month Use of Alcohol Use by Grade, 1999-Present (in percentages)

Figure 8: Trends in past month alcohol use, 8th and 11th graders

Notes:
Prevalence estimates for past month alcohol use by 5th graders were too small (n<30) to report.
11th grade data not available for the 2020 Delaware School Survey.

Back to table of figures
Delaware School Survey
Trends in Students’ Self-Reported Binge Drinking\textsuperscript{a}, 2002-2020
(in percentages)

Figure 9: Trends in binge drinking, 8\textsuperscript{th} and 11\textsuperscript{th} graders

Notes:
11\textsuperscript{th} grade data not available for the 2020 Delaware School Survey.
\textsuperscript{a} Binge drinking defined as 4 or more drinks of alcohol in a row for female students and 5 or more drinks of alcohol in a row for male students in the past two weeks (Previously binge use was reported as 3 or more drinks).


Back to table of figures
Youth Risk Behavior Survey
National and Delaware
High School Students’ Past Month Use of Alcohol, 1999-2019
(in percentages)

<table>
<thead>
<tr>
<th>Year</th>
<th>National</th>
<th>Delaware</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>50</td>
<td>47</td>
</tr>
<tr>
<td>2001</td>
<td>47</td>
<td>46</td>
</tr>
<tr>
<td>2003</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>2005</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>2007</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>2009</td>
<td>42</td>
<td>44</td>
</tr>
<tr>
<td>2011</td>
<td>39</td>
<td>40</td>
</tr>
<tr>
<td>2013</td>
<td>35</td>
<td>36</td>
</tr>
<tr>
<td>2015</td>
<td>33</td>
<td>31</td>
</tr>
<tr>
<td>2017</td>
<td>30</td>
<td>29</td>
</tr>
<tr>
<td>2019*</td>
<td>29</td>
<td>-</td>
</tr>
</tbody>
</table>

Figure 10: Trends in alcohol use, past-month, HS

Note: *National data is weighted; Delaware data is weighted except for in 2019, which is unavailable

Back to table of figures
### National Survey on Drug Use and Health
Past Month Alcohol Use by Age Group and Region
2017-2018 and 2018-2019
(in percentages)\(^a\)

<table>
<thead>
<tr>
<th>State</th>
<th>12 or Older</th>
<th>12-17</th>
<th>18-25</th>
<th>26 or Older</th>
<th>12 or Older</th>
<th>12-17</th>
<th>18-25</th>
<th>26 or Older</th>
<th>12 or Older</th>
<th>12-17</th>
<th>18-25</th>
<th>26 or Older</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total U.S.</strong></td>
<td>51.37</td>
<td>50.92</td>
<td>.051</td>
<td>9.43</td>
<td>9.19</td>
<td>.286</td>
<td>55.73</td>
<td>54.72</td>
<td>.018</td>
<td>55.57</td>
<td>55.15</td>
<td>.135</td>
</tr>
<tr>
<td><strong>Northeast</strong></td>
<td>55.62</td>
<td>53.97</td>
<td>.000</td>
<td>10.37</td>
<td>9.80</td>
<td>.128</td>
<td>61.60</td>
<td>58.93</td>
<td>.005</td>
<td>59.48</td>
<td>57.84</td>
<td>.002</td>
</tr>
<tr>
<td><strong>Delaware</strong></td>
<td>52.91</td>
<td>56.44</td>
<td>.004</td>
<td>9.43</td>
<td>10.09</td>
<td>.446</td>
<td>56.41</td>
<td>59.09</td>
<td>.223</td>
<td>57.02</td>
<td>60.93</td>
<td>.008</td>
</tr>
</tbody>
</table>

Figure 11: Alcohol use, past month, by age group and region

Notes:
\(^a\) Estimates are based on a survey-weighted hierarchical Bayes estimation approach.
\(b\) \(p\) value: Bayes significance levels for the null hypothesis of no change between the 2017-2018 and 2018-2019 population percentages.


Back to table of figures
### National Survey on Drug Use and Health

**Past-Month Binge* Alcohol Use by Age Group and Region**

2017-2018 and 2018-2019

(in percentages)\(^a\)

<table>
<thead>
<tr>
<th>State</th>
<th>12 or Older</th>
<th>12-17</th>
<th>18-25</th>
<th>26 or Older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total U.S.</td>
<td>24.49</td>
<td>24.21</td>
<td>.135</td>
<td>4.97</td>
</tr>
<tr>
<td>Northeast</td>
<td>26.04</td>
<td>25.17</td>
<td>.013</td>
<td>5.45</td>
</tr>
<tr>
<td>Delaware</td>
<td>23.48</td>
<td>24.17</td>
<td>.438</td>
<td>4.87</td>
</tr>
</tbody>
</table>

Figure 12: Alcohol use, binge drinking, past month, by age group and region

Notes:

\(^*\) 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.

\(^a\) Estimates are based on a survey-weighted hierarchical Bayes estimation approach.

\(^b\) p value: Bayes significance levels for the null hypothesis of no change between the 2017-2018 and 2018-2019 population percentages.


[Back to table of figures](#)
### National Survey on Drug Use and Health

**Past-Month Alcohol Use and Binge* Alcohol Use among Persons Ages 12 to 20, by Region 2017-2018 and 2018-2019**

(in percentages)\(^a\)

<table>
<thead>
<tr>
<th>State</th>
<th>Alcohol Use in Past Month</th>
<th>Binge Alcohol Use in Past Month</th>
<th>(p) value (^b)</th>
<th>(p) value (^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast</td>
<td>22.01</td>
<td>20.33</td>
<td>.000</td>
<td>13.93</td>
</tr>
<tr>
<td>Delaware</td>
<td>17.72</td>
<td>20.59</td>
<td>.005</td>
<td>10.20</td>
</tr>
</tbody>
</table>

Figure 13: Alcohol use, binge drinking, past-month, ages 12-20 by region

Notes:

* 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.

\(^a\) Estimates are based on a survey-weighted hierarchical Bayes estimation approach.

\(^b\) \(p\) value: Bayes significance levels for the null hypothesis of no change between the 2017-2018 and 2018-2019 population percentages.


[Back to table of figures]
Monitoring the Future
National Trends in Past 30-day Alcohol Use
8th, 10th, and 12th Grade
(in percentages)

Figure 14: National trends in past 30-day alcohol use, 8th, 10th, and 12th grade


Back to table of figures
Delaware School Survey, 1999-2019
Students’ Perception of a “Lot of Risk” from Drinking Daily, 5th Grade
(in percentages)

Figure 15: Trends in perception of a “lot of risk” from drinking daily, 5th graders

Note: Data on 5th grade students from the Delaware School Survey was unavailable in 2020.

Back to table of figures
Delaware School Survey, 1999-2020
Students’ Perception of “Great Risk” from Having 5 or More Drinks Once or Twice a Week
(in percentages)

![Graph showing trends in perception of great risk from having 5 or more drinks, 8th & 11th graders]

Figure 16: Trends in perception, “great risk” from having 5 or more drinks, 8th & 11th graders

Note: 11th grade data not available for the 2020 Delaware School Survey.

Back to table of figures
## National Survey of Drug Use and Health

**Perceptions of Great Risk from Having 5 of More Drinks Once or Twice a Week by Age Group and Region 2017-2018 and 2018-2019 (in percentages)**

<table>
<thead>
<tr>
<th>State</th>
<th>12 or Older</th>
<th>AGE GROUP (Years)</th>
<th></th>
<th>AGE GROUP (Years)</th>
<th></th>
<th>AGE GROUP (Years)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total U.S.</td>
<td>44.78</td>
<td>44.83</td>
<td>.845</td>
<td>43.39</td>
<td>43.11</td>
<td>.414</td>
<td>37.69</td>
</tr>
<tr>
<td>Northeast</td>
<td>43.45</td>
<td>44.41</td>
<td>.018</td>
<td>42.43</td>
<td>42.56</td>
<td>.831</td>
<td>34.70</td>
</tr>
<tr>
<td>Delaware</td>
<td>42.31</td>
<td>42.85</td>
<td>.613</td>
<td>43.34</td>
<td>42.58</td>
<td>.626</td>
<td>38.30</td>
</tr>
</tbody>
</table>

Figure 17: Perception of great risk from having five or more drinks once or twice a week, age group and region

**Notes:**

- Estimates are based on a survey-weighted hierarchical Bayes estimation approach.
- p value: Bayes significance levels for the null hypothesis of no change between the 2017-2018 and 2018-2019 population percentages.


[Back to table of figures](#)
2019 Middle School Youth Risk Behavior Survey
Students Who Ever Rode with a Driver Who Had Been Drinking*, 2007-2019 (in percentages)

Figure 18: Trends in students who ever rode with a driver who had been drinking, MS

*In a car
†Decreased 2007-2019 [Based on linear and quadratic trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade (p < 0.05). Significant linear trends (if present) across all available years are described first followed by linear changes in each segment of significant quadratic trends (if present).] This graph contains weighted results.

Back to table of figures
Figure 19: Trends in reported drinking and driving in past month, 11th graders

Note: Data on 11th grade students from the Delaware School Survey was unavailable in 2020.

Back to table of figures
Delaware State Police  
Driving Under the Influence Arrests, 2020

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 and under</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>8</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>17</td>
<td>13</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>18</td>
<td>40</td>
<td>4</td>
<td>44</td>
</tr>
<tr>
<td>19</td>
<td>31</td>
<td>9</td>
<td>40</td>
</tr>
<tr>
<td>20</td>
<td>37</td>
<td>10</td>
<td>47</td>
</tr>
<tr>
<td>21-24</td>
<td>184</td>
<td>66</td>
<td>250</td>
</tr>
<tr>
<td>25-34</td>
<td>611</td>
<td>201</td>
<td>812</td>
</tr>
<tr>
<td>35-44</td>
<td>446</td>
<td>160</td>
<td>606</td>
</tr>
<tr>
<td>45-54</td>
<td>270</td>
<td>87</td>
<td>357</td>
</tr>
<tr>
<td>55-64</td>
<td>176</td>
<td>50</td>
<td>226</td>
</tr>
<tr>
<td>65 &amp; older</td>
<td>56</td>
<td>15</td>
<td>71</td>
</tr>
<tr>
<td>Total</td>
<td>1,872</td>
<td>606</td>
<td>2,478</td>
</tr>
</tbody>
</table>

Figure 20: Delaware DUI arrests by age and sex

National Highway Traffic Safety Administration
Trends in Alcohol-Involved Traffic Fatalities
in Delaware by County, 2014-2019
(in percentages)

Figure 21: Trends in Delaware traffic fatalities/alcohol use by county

Note: Fatalities per 100,000 population


Back to table of figures
2. References

Alcohol


## Data Sources

<table>
<thead>
<tr>
<th>Data Instrument</th>
<th>Most Recent Data</th>
<th>Trend Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delaware’s Annual Traffic Statistical Report</td>
<td>2020</td>
<td>-</td>
</tr>
<tr>
<td>Delaware Behavioral Risk Factor Surveillance System (BRFSS)</td>
<td>2019</td>
<td>-</td>
</tr>
<tr>
<td>Delaware Prescription Monitoring Program (PMP)</td>
<td>2020</td>
<td>2012- 2020</td>
</tr>
<tr>
<td>Delaware School Survey (DSS) – 5th and 11th grades 8th grade*</td>
<td>*2019 2020</td>
<td>*1999 - 2019 1999 - 2020</td>
</tr>
<tr>
<td>Delaware Youth Risk Behavior Survey (YRBS) – High School</td>
<td>2017</td>
<td>1999 - 2017</td>
</tr>
<tr>
<td>Delaware Youth Risk Behavior Survey (YRBS) – Middle School</td>
<td>2019</td>
<td>1999 - 2019</td>
</tr>
<tr>
<td>DOMIP (Delaware Opioid Metric Intelligence Program)</td>
<td>2020</td>
<td>-</td>
</tr>
<tr>
<td>Monitoring the Future – 8th, 10th, and 12th grades</td>
<td>2020</td>
<td>1999 - 2020</td>
</tr>
<tr>
<td>Performance Measures, Delaware</td>
<td>2018</td>
<td>2014-2019</td>
</tr>
<tr>
<td>National Survey on Children’s Health (NSCH)</td>
<td>2019</td>
<td>2016 - 2019</td>
</tr>
<tr>
<td>National Survey on Drug Use and Health (NSDUH)</td>
<td>2018-2019</td>
<td>2002 - 2019</td>
</tr>
<tr>
<td>Delaware Infants with Prenatal Substance Exposure</td>
<td>2020</td>
<td>2015-2020</td>
</tr>
<tr>
<td>Treatment Admissions Data</td>
<td>2019</td>
<td>-</td>
</tr>
</tbody>
</table>
In addition to the data sources for the figures and tables in the 2021 report, the following data sources are also cited throughout the narrative:

- America’s Health Rankings
- American Psychological Association
- Bureau of Labor Statistics
- Center for Drug and Health Studies, University of Delaware
- Crisis Text Line
- Delaware Department of Education
- Delaware Department of Health and Social Services, Division of Public Health, My Healthy Community
- Delaware Department of Safety and Homeland Security, Division of Forensic Science
- Delaware Household Health Survey
- Drug Enforcement Administration
- KIDS COUNT in Delaware
- KFF
- National Academies of Sciences, Engineering, and Medicine
- National Center for Health Statistics
- National Conference of State Legislatures
- National Institute on Alcohol Abuse and Alcoholism
- National Institute on Drug Abuse
- National Institutes of Health
- National Institute on Mental Health
- Rapid Assessment of Pandemic Impact on Development – Early Childhood
- RTI International
- State of Delaware Economic Development Office
- The Trevor Project
- U.S. Census Bureau
- U.S. Centers for Disease Control and Prevention
- U.S. Health Resources and Services Administration