Marijuana

The 2022 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 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.
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 approximately 55 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 efforts 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 marijuana use. 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.
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
Beebe Healthcare
Children and Families First
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 Corrections
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 Overdose System of Care
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
Network Connect
New Castle County Behavioral Health Unit
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
Unite States Department of Justice
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

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If your organization is interested in becoming an SEOW Collaborator, please contact Meisje Scales at: mjscales@udel.edu.
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Notes: 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 (i.e., 30 or above).

- **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.

- The 2021 Delaware School Survey (DSS) is administered annually to students in 5th, 8th, and 11th grades of participating public schools. There is one version designed for 5th graders and a secondary version for 8th and 11th graders. These data are important for monitoring behavioral health among youth and are included throughout the report. The sample sizes for the 2021 DSS are:
  - 5th grade: 2,601
  - 8th grade: 2,896
  - 11th grade: 1,597

- **Pandemic Impacts on Data Collection:** Since 2020, the COVID-19 pandemic has greatly affected data collection of all kinds. This report compiles the most recently accessible state and national data available to provide a comprehensive profile of behavioral health in Delaware. Given that the timing and methods of various data survey administrations may have changed within the past several years, it will be important to consider this when interpreting trends.
  - Prior to the onset of the COVID-19 pandemic, the Delaware School Survey was administered at participating schools in person and using paper and pencil copies. To accommodate the new pandemic-related protocols that were put in place when in person learning resumed, in 2021, the survey was administered to students using an online format. Data from the 2021 survey should be interpreted with this in mind, especially when comparing trends against previous years, as changes in the survey format may impact student participation in unknown ways.

**A Note on Word Choice Used in this Report:**
Language frames how we collectively think about behavioral health and is continuously evolving. The SEOW Facilitator Team strives to use word choices that are accurate, respectful, free of stigma, strength-based, trauma-informed, and inclusive and culturally sensitive in our data products. However, much of the data and information we report are drawn from other sources. To preserve accuracy, whenever possible, we use the words, phrases, and data labels that are used in the original sources even if these terms are not necessarily the terms we would use as researchers, practitioners, or prevention specialists. When it is necessary to edit an SEOW product in a way that uses different terminology from the original data source, we include the original phrasing in the accompanying notes.
1. Marijuana

National Overview

Over the past two decades, the majority of states have enacted laws that change the status of marijuana. According to the National Conference of State Legislatures, 37 states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands allow for medical use of cannabis products. Nineteen states, the District of Columbia, and two territories have approved nonmedical cannabis use for adults (National Conference of State Legislatures, n.d.). These changes to policy at the state level are at odds with federal law, which classifies marijuana as a Schedule I drug (Drug Enforcement Administration, n.d.). Drugs in this category are regarded as dangerous, likely to be abused, and have no medical value. A recent report by the National Academies of Sciences, Engineering, and Medicine (NASEM, or the Academies) was based on the review of more than 10,700 studies on the health impacts of marijuana. The report shows there is strong evidence for various medical uses of marijuana, but it also notes that there are health concerns linked to use, including: the risk of driving while intoxicated, respiratory symptoms associated with smoking, and evidence that links frequent and/or heavy use of marijuana to schizophrenia or other psychotic disorders in people who are predisposed (National Academies of Sciences, Engineering, and Medicine [NASEM], 2017).

As the laws have changed around the use of marijuana, so have public perceptions of risk. This is particularly problematic because marijuana potency has increased dramatically over the past decades. Since 1995, the amount of tetrahydrocannabinol (THC), the main psychoactive component of marijuana, increased nearly 200% in marijuana confiscated by the Drug Enforcement Agency (ElSohly et al., 2016; NASEM, 2017). Nationally, approximately 17% of individuals aged 12 and over report past year marijuana use and 10% report past month use, while only one in five consider regular marijuana use to be a great risk (National Survey on Drug Use and Health [NSDUH], 2019-2020).

When young people use marijuana, they are doing so at a critical period of brain development. Neuroscientists have found that brain development continues through the mid-20s. The last part of the brain to develop is the prefrontal cortex, which is associated with decision-making, impulse control, risk-taking, and other executive functioning tasks (Weir, 2015). Research using brain imaging of youth show significant differences in brain development between youth who frequently use marijuana and those who abstain, even after comparing for demographic, behavioral, and other key variables (Lisdahl et al., 2013). Comparisons of cognitive functioning (IQ, memory, processing, impulse control, etc.) also reveal significant differences between

Approximately 22% of young adults in Delaware (aged 18-25) report using marijuana in the past month.

Only 1 in 3 Delaware 8th graders perceive great risk in using marijuana regularly, a trend that has been on the decline for over 20 years. Even fewer (1 in 4) 11th graders perceive such risk.
youth who use marijuana and those who do not (Lisdahl et al., 2013). Early use of marijuana (before the age of 16) has been linked to more frequent and heavier use of marijuana over time than users who began using later in life (Gruber et al., 2017). Several studies have also tied early marijuana use to a greater risk of becoming dependent on other substances later in life (NASEM, 2017).

Similar to other aspects of behavioral health, there is concern regarding how the COVID-19 pandemic may have affected marijuana use. Although the 2021 Monitoring the Future graphs included in this report indicate that there was a decrease in marijuana use among 8th, 10th, and 12th grade students between 2020 and 2021, rates of use among young adults (aged 19 to 30) were at the highest levels reported since the survey has been administered (National Institute on Drug Abuse, 2022). It is too soon to know how pervasive these trends may be or how pandemic-related challenges to prevention programs and treatment may impact consumption patterns over time.

**Delaware Overview**

Delaware School Survey (DSS) data continues to show that the perception of risk has declined among youth since 1999, when half of 11th graders and 60% of 8th graders perceived a great risk in using marijuana regularly. By 2021, the rate of 11th graders who perceived regular use as a great risk had dropped to 24% and to only one in three among 8th graders. Marijuana remains a popular substance for youth; trends in past month use among Delaware students had remained relatively stable until 2021. For the past 20 years, rates of past month use reported on the Delaware School Survey (DSS) fluctuated between 22% and 28%, with a rate of 24% in 2019. In 2021, the rate dropped to 11%. Approximately one in five students reported using marijuana in the past year and 5% reported heavy use (defined as using marijuana six times or more in the previous month). The average age of first use among 11th graders dropped to 14.7 years of age, nearly half a year younger than that reported in 2019. Similar to their older counterparts, according to the DSS, the past month marijuana use rate among 8th grade students dropped to 4% in 2021 from 7% in 2020.

Increasingly, youth are finding alternate ways to ingest marijuana other than smoking, including consuming edibles and concentrates and vaping it. Because vaping eliminates much of the strong odor associated with the use of marijuana and many vape devices are small and easy to hide, there may now be a greater potential for use in schools and other settings where smoking marijuana would previously have been harder to conceal. The same concerns are also relevant for marijuana edibles. In 2021, 8% of 11th graders reported smoking marijuana, 4% reported vaping it, and 3% reported using edibles.

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1 Due to the COVID-19 pandemic and subsequent shift to remote education, the Delaware School Survey was not administered to 11th grade students in 2020.
Youth who drive while under the influence of marijuana put themselves and others in danger. Four percent of 11th graders responding to the 2021 DSS reported that they had done so in the previous year.

In Delaware, young adults aged 18 to 25 reported a past year use rate of nearly 37% and a monthly rate of nearly 22% on the 2019-2020 National Survey on Drug Use and Health (NSDUH). While these numbers also reflect small decreases in consumption, data reported for this time frame should be viewed with caution due to challenges with data collection. The Treatment Episode Data Set (TEDS) tracking system indicates that marijuana was listed as the primary substance in approximately 8% of all publicly funded treatment admissions in Delaware in 2019, and 22% of admissions among those aged 21 to 25 (more detailed TEDS data can be found in Chapter 6 of this report).

The rates of marijuana use have dropped in the past year across various age groups according to national and local surveys. But it is unclear if these declines reflect changes in data collection strategies, sample sizes, response rates, or other factors related to the COVID-19 pandemic. It will be necessary to monitor marijuana use along with other substance use rates in the coming years to determine if these rates have truly decreased or are due to recent unusual circumstances.

**Policy Update: Recreational Marijuana Remains Illegal in Delaware**

In March 2022, House Bill 371 was introduced in the Delaware legislature. The bill proposed to amend existing law in order to legalize the possession and gifting of up to one ounce of marijuana for recreational use among adults aged 21 and over. A companion bill to regulate the marijuana industry throughout the state was also introduced. Although the bill to regulate the state’s marijuana industry did not pass on its initial vote, the measure to legalize recreational marijuana was passed by both chambers in May and sent to the Governor’s office for signature. Governor Carney vetoed the bill, reiterating his concerns over the long-term effect of marijuana and law enforcement challenges (PBS Newshour, 2022). On June 7th the House held a roll call vote but failed to override the Governor’s veto (Delaware General Assembly, n.d.).

Delaware regulates a medical marijuana program for specific health conditions. It has also decriminalized the possession of small amounts of nonmedical marijuana; if someone is in possession of less than one ounce of marijuana, they will pay a $100 fine rather than face arrest and prosecution (Delaware Code, n.d.). Among the surrounding states, New Jersey recently legalized the use of recreational marijuana while Pennsylvania and Maryland have limited legalization to regulated medical marijuana programs (National Conference of State Legislatures, n.d.). However, Maryland will include a question regarding the legalization of recreational marijuana on its ballot in the November 2022 general election (NBC, 2022).
### National Survey on Drug Use and Health
Marijuana Use and Perception of Risk in Delaware by Age Group, 2019-2020\(^a\)
(annual average percentages)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Total 12 or Older</th>
<th>AGE GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>12-17</td>
</tr>
<tr>
<td>Past Year Marijuana Use</td>
<td>16.79</td>
<td>10.00</td>
</tr>
<tr>
<td>Past Month Marijuana Use</td>
<td>10.29</td>
<td>5.45</td>
</tr>
<tr>
<td>Perceived of Great Risk of Smoking Marijuana</td>
<td>21.87</td>
<td>24.19</td>
</tr>
<tr>
<td>Once a Month</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: Marijuana use, past year, past month, perceived risk, by age group

Note:
\(^a\) Estimates are based on a survey-weighted hierarchical Bayes estimation approach and generated by Markov Chain Monte Carlo techniques.

Source: “2019-2020 National Survey on Drug Use and Health: Model-Based Prevalence Estimates (50 States and the District of Columbia),” Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.

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### 2021 Delaware School Survey
Marijuana Use among Delaware 5th Graders
(in percentages)

![Bar chart showing marijuana use among Delaware 5th graders](image)

<table>
<thead>
<tr>
<th></th>
<th>Lifetime Use</th>
<th>Past Year Use</th>
<th>Past Month Use</th>
<th>Perceived “a Lot of Risk” from:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TRYING</td>
</tr>
<tr>
<td>Statewide</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>25</td>
</tr>
<tr>
<td>Male</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>26*</td>
</tr>
<tr>
<td>Female</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>24*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WEEKLY USE</td>
</tr>
<tr>
<td>Statewide</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>45</td>
</tr>
<tr>
<td>Male</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>44*</td>
</tr>
<tr>
<td>Female</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>46*</td>
</tr>
</tbody>
</table>

**Figure 2: Marijuana use, 5th grade**

**Notes:**
- "-" indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.
- * Estimates were not statistically significant at the p<.05 level.


[Back to table of figures]
2021 Delaware School Survey
Marijuana Use among Delaware 8th Graders
(in percentages)

<table>
<thead>
<tr>
<th></th>
<th>Lifetime Use</th>
<th>Past Year Use</th>
<th>Past Month Use</th>
<th>Heavy Use</th>
<th>Perceived Great Risk from Regular Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statewide</strong></td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>1</td>
<td>34</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td>7</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>31</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>11</td>
<td>9</td>
<td>5</td>
<td>-</td>
<td>36</td>
</tr>
</tbody>
</table>

Figure 3: Marijuana use, 8th grade

Notes:

a “Heavy Use” indicates more than six times in the past month.

b “Regular use” is self-defined in the survey.

“-” indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

* Estimates were not statistically significant at the p<.05 level.


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Figure 4: Marijuana use, 11th grade

Notes:

a “Heavy Use” indicates more than six times in the past month.

b “Regular use” is self-defined in the survey.

“-” indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

* Estimates were not statistically significant at the p<.05 level.


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2021 Delaware School Survey

Students’ Average Age of Onset\(^1\) for Marijuana Use

<table>
<thead>
<tr>
<th></th>
<th>8(^{th}) Grade</th>
<th>11(^{th}) Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>12.6 years</td>
<td>14.7 years</td>
</tr>
</tbody>
</table>

Figure 5: Average age of onset for marijuana use, 8\(^{th}\) and 11\(^{th}\) grade

2021 Delaware School Survey

Method of Consumption for Past Month Marijuana Use
(in percentages)

Figure 6: Method of consumption for marijuana, 8\(^{th}\) and 11\(^{th}\) grade

Note:
\(^1\) Average age of onset is calculated among students who report ever using marijuana.


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Delaware School Survey
Trends in Delaware Students’ Past Month Marijuana Use by Grade, 1999-Present
(in percentages)

Figure 7: Trends in past month marijuana use, 8th and 11th grade

Notes:
These statistics contribute to the National Outcome Measures (NOMs).
In 2020, 11th grade data was not available for the Delaware School Survey.

Youth Risk Behavior Survey
National and Delaware, 1999-2019
Trends in High School Students’ Past Month Use of Marijuana
(in percentages)

<table>
<thead>
<tr>
<th>Year</th>
<th>National</th>
<th>Delaware</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>27</td>
<td>29</td>
</tr>
<tr>
<td>2001</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>2003</td>
<td>22</td>
<td>27</td>
</tr>
<tr>
<td>2005</td>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td>2007</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>2009</td>
<td>21</td>
<td>26</td>
</tr>
<tr>
<td>2011</td>
<td>23</td>
<td>28</td>
</tr>
<tr>
<td>2013</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>2015</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>2017</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>2019*</td>
<td>22</td>
<td>-</td>
</tr>
</tbody>
</table>

Figure 8: Trends in marijuana use, past month, HS

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


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## National Survey on Drug Use and Health
### Past Year Marijuana Use by Age Group and Region
#### 2018-2019 and 2019-2020 NSDUH
**(in percentages)**

<table>
<thead>
<tr>
<th>AGE GROUP (Years)</th>
<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>16.71</td>
<td>17.73</td>
<td>-</td>
<td>12.84</td>
<td>11.66</td>
</tr>
<tr>
<td>Northeast</td>
<td>17.70</td>
<td>18.70</td>
<td>-</td>
<td>13.30</td>
<td>12.42</td>
</tr>
<tr>
<td>Delaware</td>
<td>18.18</td>
<td>16.79</td>
<td>-</td>
<td>14.43</td>
<td>10.00</td>
</tr>
</tbody>
</table>

**Figure 9: Marijuana use, past year, by age group and region**

**Notes:**
- Estimates are based on a survey-weighted hierarchical Bayes estimation approach and generated by Markov Chain Monte Carlo techniques.
- $p$ value: Bayes significance levels for the null hypothesis of no change between the 2018-2019 and 2019-2020 population percentages. $P$ values for this data were unavailable at the time of this report writing.

**Source:** "2019-2020 National Survey on Drug Use and Health: Model-Based Prevalence Estimates (50 States and the District of Columbia),” Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.

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### National Survey on Drug Use and Health

**Past Month Marijuana Use by Age Group and Region**

2018-2019 and 2019-2020

(in percentages)  

![Table](https://example.com/table.png)

Figure 10: Marijuana use, past month, by age group and region

**Notes:**

- Estimates are based on a survey-weighted hierarchical Bayes estimation approach and generated by Markov Chain Monte Carlo techniques.
- \(p\) value: Bayes significance levels for the null hypothesis of no change between the 2018-2019 and 2019-2020 population percentages. P values for this data were unavailable at the time of this report writing.

**Source:** "2019-2020 National Survey on Drug Use and Health: Model-Based Prevalence Estimates (50 States and the District of Columbia)." Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.

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Monitoring the Future
National Trends in Past Month Marijuana Use among
8th, 10th, and 12th grade students, 1999-2021
(in percentages)

Figure 11: National trends in past month marijuana use, 8th, 10th, and 12th grade

Source: "National Survey Results on Drug Use, 1975-2021." Monitoring the Future Study (MTF), University of Michigan.

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Delaware School Survey
Trends in 5th Graders’ Perception of “a Lot of Risk” in Using Marijuana Weekly, 1999-2021
(in percentages)

Figure 12: Trends in perception, “lot of risk” using marijuana weekly, 5th grade

Note: In 2020, 5th grade data was not available for the Delaware School Survey.


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Delaware School Survey

Trends in 8th and 11th Graders’ Perceptions of “Great Risk” in Using Marijuana Regularly, 1999-2021\(^a\) (in percentages)

Figure 13: Trends in perception, “great risk” using marijuana regularly, 8th and 11th grade

Notes:
\(^a\) “Regularly” is self-defined in the survey.
In 2020, 11th grade data was not available for the Delaware School Survey.

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1-15
## National Survey on Drug Use and Health

Perceptions of “Great Risk” in Smoking Marijuana Once a Month
by Age Group and Region
2018-2019 and 2019-2020
(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>Northeast</td>
<td>23.78</td>
<td>21.64</td>
<td>-</td>
<td>22.71</td>
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</table>

Figure 14: Perception of “great risk” in smoking marijuana once a month, by age and region

Notes:
\(^a\) Estimates are based on a survey-weighted hierarchical Bayes estimation approach and generated by Markov Chain Monte Carlo techniques.
\(^b\) p value: Bayes significance levels for the null hypothesis of no change between the 2018-2019 and 2019-2020 population percentages. P values for this data were unavailable at the time of this report writing.

Source: “2019-2020 National Survey on Drug Use and Health: Model-Based Prevalence Estimates (50 States and the District of Columbia).” Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.
2021 Delaware School Survey

11th Graders Who Reported Smoking Marijuana and Driving (in percentages)

<table>
<thead>
<tr>
<th></th>
<th>Lifetime</th>
<th>Past Year</th>
<th>Past Month</th>
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</thead>
<tbody>
<tr>
<td>Statewide</td>
<td>6</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Male</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Female</td>
<td>6*</td>
<td>5*</td>
<td>-</td>
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</tbody>
</table>

Figure 15: Marijuana use and driving, 11th grade

Notes:
“-” indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.
* Estimates were not statistically significant at the p<.05 level.


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Delaware School Survey

Trends in Delaware 11th Graders Who Reported Smoking Marijuana and Driving in the Past Month, 1999-2019 (in percentages)

Figure 16: Trends, smoking marijuana & driving, 11th grade

Notes:
In 2020, 11th grade data was not available for the Delaware School Survey.
In 2021, prevalence estimates for past month reports of smoking marijuana and driving by 11th graders were too small (n<30) to report.


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2. References

Marijuana


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<th>Data Instrument</th>
<th>Most Recent Data</th>
<th>Trend Range</th>
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</thead>
<tbody>
<tr>
<td>Delaware’s Annual Traffic Statistical Report</td>
<td>2021</td>
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<td>Delaware Behavioral Risk Factor Surveillance System (BRFSS)</td>
<td>2020</td>
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<tr>
<td>Delaware Division of Forensic Science Annual Report</td>
<td>2021</td>
<td>2019 - 2021</td>
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<tr>
<td>Delaware Online/NewsJournal Gun Violence Database</td>
<td>2022</td>
<td>2017 - 2022</td>
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<tr>
<td>Delaware Prescription Monitoring Program (PMP)</td>
<td>2020</td>
<td>2012 - 2020</td>
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<tr>
<td>Delaware School Survey (DSS) – 5th grade</td>
<td>2021</td>
<td>1999 - 2021</td>
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<tr>
<td>8th and 11th grades</td>
<td>2021</td>
<td>1999 - 2021</td>
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<tr>
<td>Delaware Youth Risk Behavior Survey (YRBS) – High School</td>
<td>2017</td>
<td>1999 - 2017</td>
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<td>Delaware Youth Risk Behavior Survey (YRBS) – Middle School</td>
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<td>1999 - 2019</td>
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<td>DOMIP (Delaware Opioid Metric Intelligence Program)</td>
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<td>Household Pulse Survey</td>
<td>2022</td>
<td>2021 - 2022</td>
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<tr>
<td>Monitoring the Future – 8th, 10th, and 12th grades</td>
<td>2021</td>
<td>1999 - 2021</td>
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<td>National Survey of Children’s Health (NSCH)</td>
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<td>2016 - 2020</td>
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<td>Data Instrument</td>
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<td>National Survey on Drug Use and Health (NSDUH)</td>
<td>2019-2020</td>
<td>2002 - 2020</td>
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<td>Delaware Infants with Prenatal Substance Exposure</td>
<td>2020</td>
<td>2015-2020</td>
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<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 2022 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 Drug Monitoring Initiative
- Delaware Household Health Survey
- Drug Enforcement Administration
- Gallup
- 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
- State of Delaware Economic Development Office
- The Trevor Project
- The Williams Institute
- U.S. Bureau of Labor Statistics
- U.S. Census Bureau
- U.S. Centers for Disease Control and Prevention (Alcohol-Related Disease Impact [ARDI] Dashboard; Death Rate Maps & Graphs; State Overdose Death Reporting System [SUDORS])
- U.S. Health Resources and Services Administration