2020 DELAWARE STATE EPIDEMIOLOGICAL PROFILE
SUBSTANCE USE AND RELATED ISSUES

Marijuana

prepared for

Acting Director Alexis Teitelbaum and the
Delaware Division of Substance Abuse and Mental Health
&
The Delaware State Epidemiological Outcomes Workgroup

with funding from the Strategic Prevention Framework - Partnerships for Success Program

Sponsored by Award SP020704 to the Division of Substance Abuse and Mental Health, Delaware Health and Social Services, from the Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration. Please address all inquiries to Laura Rapp, PhD, University of Delaware Center for Drug and Health Studies. Department of Sociology and Criminal Justice: lrapp@udel.edu.
The Role of the Delaware State Epidemiological Outcomes Workgroup and the Purpose of the Epidemiological Profile

All states, including Delaware, have 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 supported the establishment of the Delaware SEOW through SAMHSA Strategic Prevention Framework grants awarded previously. The SEOW is a group of people and organizations that have and use analytical data concerning substance use and related behaviors and consequences; this information can be used to establish and monitor indicators related to substance use prevention. Formerly known as the Delaware Drug and Alcohol Tracking Alliance (DDATA), Delaware’s SEOW mission is to bring data on substance use and associated issues to the forefront of the prevention process 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 planning and policies
- To train agencies and communities in understanding, using, and presenting data effectively

The annual Delaware State Epidemiological Profile was developed by the SEOW to disseminate data for strategic planning, decision-making, and evaluation. Using indicators that are available on an ongoing basis, the report describes patterns of consumption, context, consequences, and trends of substance use, as well as other risk and protective factors, especially among young 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 in Delaware. To review the complete Delaware Epidemiological Profile, other chapters, infographics, or SEOW data products, please visit the UD Center for Drug and Health Studies Delaware Epidemiological Reports page.
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
Sponsored by Award SP020704 to the Division of Substance Abuse and Mental Health, Delaware Health and Social Services, from the Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration. Please address all inquiries to Laura Rapp, PhD, University of Delaware Center for Drug and Health Studies, Department of Sociology and Criminal Justice: lrapp@udel.edu.

Delaware Information and Analysis Center
Delaware Multicultural and Civic Organization
Delaware Prevention Coalition
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
Nemours Health and Prevention Services
 Planned Parenthood of Delaware
Red Clay Consolidated School District
Sussex County Health Coalition
Transitions Delaware
Trauma Matters Delaware
United Way of Delaware
Wesley College
West End Neighborhood House
University of Delaware
  College of Health Sciences
  College of Arts and Sciences
  Student Health & Wellness Promotion
Wilmington University

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

Notes on Data Reporting and Interpretation  

1. Marijuana  
   National Overview  
   Delaware Overview  
   Data in Action: Medical Marijuana in Delaware  

2. References  
   Marijuana  
   Data Sources
Table of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>Marijuana use, past year, past month, perceived risk, by age group</td>
<td>1-5</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Marijuana use, 5th graders</td>
<td>1-6</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Marijuana use, 8th graders</td>
<td>1-7</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Marijuana use, 11th graders</td>
<td>1-8</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Lifetime marijuana use, by sex, grade, MS</td>
<td>1-9</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Marijuana use in lifetime, by sex, grade, and race/ethnicity, HS</td>
<td>1-10</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Marijuana use in the past 30 days, by sex, grade, and race/ethnicity, HS</td>
<td>1-11</td>
</tr>
<tr>
<td>Figure 8</td>
<td>Marijuana use before age 13, by sex, grade, and race/ethnicity, HS</td>
<td>1-12</td>
</tr>
<tr>
<td>Figure 9</td>
<td>Average age of onset for marijuana use, 8th and 11th grades, 2018</td>
<td>1-13</td>
</tr>
<tr>
<td>Figure 10</td>
<td>Method of consumption for marijuana, 8th and 11th grade</td>
<td>1-13</td>
</tr>
<tr>
<td>Figure 11</td>
<td>Trends in past month marijuana use, 8th and 11th grade</td>
<td>1-14</td>
</tr>
<tr>
<td>Figure 12</td>
<td>Trends in marijuana use, past month &amp; lifetime, HS</td>
<td>1-15</td>
</tr>
<tr>
<td>Figure 13</td>
<td>Trends in marijuana use, past month, national and Delaware</td>
<td>1-16</td>
</tr>
<tr>
<td>Figure 14</td>
<td>Marijuana use, past year, by age group and region</td>
<td>1-17</td>
</tr>
<tr>
<td>Figure 15</td>
<td>Marijuana use, past month, by age group and region</td>
<td>1-18</td>
</tr>
<tr>
<td>Figure 16</td>
<td>National trends in past month marijuana use, 8th, 10th, 12th grade</td>
<td>1-19</td>
</tr>
<tr>
<td>Figure 17</td>
<td>Perception of risk from once- or twice-a-week marijuana use</td>
<td>1-20</td>
</tr>
<tr>
<td>Figure 18</td>
<td>Trends in perception, “lot of risk” using marijuana weekly, fifth grade</td>
<td>1-21</td>
</tr>
<tr>
<td>Figure 19</td>
<td>Trends in perception, “great risk” using marijuana regularly</td>
<td>1-22</td>
</tr>
<tr>
<td>Figure 20</td>
<td>Perception of “great risk” in smoking marijuana once a month, by age and region</td>
<td>1-23</td>
</tr>
<tr>
<td>Figure 21</td>
<td>Marijuana use and driving, 11th graders</td>
<td>1-24</td>
</tr>
<tr>
<td>Figure 22</td>
<td>Trends, smoking marijuana &amp; driving, 11th graders</td>
<td>1-25</td>
</tr>
<tr>
<td>Figure 23</td>
<td>Map of marijuana use, past month, 8th grade</td>
<td>1-26</td>
</tr>
<tr>
<td>Figure 24</td>
<td>Map of marijuana use, past month, 11th grade</td>
<td>1-27</td>
</tr>
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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 recently updated its guidelines for reporting and interpreting data from surveys that it administers to students across the state of Delaware. As a result, in the 2020 Delaware State Epidemiological Profile, data in some tables and figures have been aggregated or otherwise reported differently than in years prior. The following notes summarize the guidelines for interpreting data presented in this report:

- **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 data (DSS, YRBS, YTS) 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:** With respect to the Delaware YRBS survey, there may be slight discrepancies in how CDHS reports some data points compared to how the Centers for Disease Control and Prevention (CDC) and their national technical advisors (Westat, Inc.) report the data. This is largely due to differing practices when conducting analysis with 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. Prevalence data from the Youth Risk Behavior Survey and Youth Tobacco Survey are usually weighted, however, data is not weighted when exploring small subpopulations to ensure an accurate analysis that is not influenced due to the small number of individuals in those subpopulations.

  o **2019 Weighted Data:** In previous years, advisors to the CDC have provided weights with the Youth Risk Behavior Survey data, and frequencies have been estimated using weighted data. In 2019, the YRBS sample population in Delaware did not meet threshold requirements for weighting data, so any prevalence estimates relying on YRBS data for this year are unweighted.

In 2019, a total of 10,765 Delaware students responded to either the Delaware School Survey (DSS) or the Delaware Youth Risk Behavior Survey (YRBS). By survey, the total number of respondents are as follows:

<table>
<thead>
<tr>
<th>Survey Administration</th>
<th># of Respondents</th>
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<tbody>
<tr>
<td><strong>DSS</strong></td>
<td></td>
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<tr>
<td>5th Grade</td>
<td>2,992</td>
</tr>
<tr>
<td>8th Grade</td>
<td>2,126</td>
</tr>
<tr>
<td>11th Grade</td>
<td>2,299</td>
</tr>
<tr>
<td><strong>Delaware YRBS</strong></td>
<td></td>
</tr>
<tr>
<td>Middle School</td>
<td>1,162</td>
</tr>
<tr>
<td>High School</td>
<td>2,186</td>
</tr>
</tbody>
</table>
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, 33 states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands have enacted comprehensive medical marijuana programs and 14 states and territories have approved cannabis use for adults (National Conference of State Legislatures, n.d.). Twenty-two states have decriminalized the personal use of marijuana, and 10 states and the District of Columbia allow adult recreational use of marijuana (National Conference of State Legislatures, 2019). 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 more than one in ten (11%) report past month use (National Survey on Drug Use and Health [NSDUH], 2017-2018).

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 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 smoking 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).

**Delaware Overview**

Delaware School Survey (DSS) data show that the perception of risk involved with the use of marijuana has declined among students over the past ten years. The majority of all 8th and 11th graders surveyed in 2019 report that they did not perceive “great risk” in smoking marijuana regularly. Trends in past-month self-reported marijuana use among Delaware students have remained relatively stable in recent years. In 2019, 24% of 11th grade students and 8% of 8th grade students report smoking marijuana in the past month, and the average age of first use of marijuana is 13.2 years among 8th graders and 15.2 years among 11th graders (DSS, 2019). Of note, 2019 Middle School Youth Risk Behavior Survey (YRBS) data indicates that lifetime use rates double among Delaware students when comparing 6th and 7th graders (combined) to 8th graders, from 6% to 12% respectively. Lifetime rates also increase as students advance through high school, nearly doubling from 28% among 9th graders to 54% among seniors (Delaware YRBS, 2019). Past month use rates also increase from grade to grade, more than doubling from 16% among freshman to 36% among seniors. A comparison of data sets from the National and Delaware YRBS indicate that over the years Delaware high school youth have smoked marijuana at slightly higher rates than the national average, although the difference in 2019 was narrower with a national rate of 22% and a state rate of 24% (Centers for Disease Control and Prevention [CDC], 2019).

Increasingly, youth are finding alternate ways to ingest marijuana other than smoking, including consuming edibles and concentrates, and vaporizing. In 2019, 12% of eleventh grade students report vaping marijuana in the past month, and 6% report eating marijuana edibles (DSS, 2019). Because vaping eliminates much of the strong odor associated with the use of marijuana and vape devices (such as JUULs) are small and easy to hide, there may now be a greater potential for abuse in schools and other settings where smoking marijuana would previously have been harder to conceal. The same concerns are also relevant for marijuana edibles.

Youth who drive while under the influence of marijuana put themselves and others in danger. Fourteen percent of 11th graders responding to the 2019 DSS report that at some point in their lives they had driven a car after smoking marijuana, and 7% report that they had done so in the past month.

As the National Survey of Drug Use and Health (NSDUH) charts indicate, Delawareans use marijuana at slightly higher rates than the national average (Substance Abuse and Mental Health Services Administration [SAMHSA], n.d.). 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 21-25 (more detailed TEDS data can be found in Figures 135-138 in Chapter 6 of this report).
Delaware allows medical marijuana for specific conditions and has decriminalized the possession of small amounts of marijuana. Now, if an adult has less than an ounce of marijuana, he or she will pay a $100 fine rather than face arrest and prosecution (Delaware Code, n.d.). Proposed legislation in the Delaware Legislature, House Bill 110, would have legalized adult recreational use of marijuana in Delaware. The bill failed to pass in 2018 and was reintroduced in May 2019 with some revisions (Bittle, 2019). In June 2019, it was assigned to the House Appropriations Committee in the State House. However, it was not taken up during the 2020 legislative session which was abbreviated due to the COVID-19 pandemic.
## Data in Action: Medical Marijuana in Delaware

Marijuana, while still considered a Schedule I Controlled Substance per federal drug guidelines, has been increasingly recognized by medical professionals as also having medicinal properties that may be helpful to patients with certain conditions. Delaware is one of 33 states that allows the sale of medical marijuana to eligible patients. Participating patients and/or their caregivers are required to buy marijuana from authorized dispensaries; patients cannot grow their own marijuana or buy marijuana from any other sources. Patients are also limited in the quantity of marijuana they can purchase each month. The list of qualifying conditions for medical marijuana is continuing to expand as more research is conducted; currently, Delaware residents may qualify for the Medical Marijuana Program (MMP) if they have one of a list of qualifying conditions, or another chronic medical condition where its symptoms or treatment cause problems such as severe debilitating pain, intractable nausea, seizures, or severe and persistent muscle spasms. More detailed information about the eligibility criteria for medical marijuana in Delaware can be found on the medical marijuana FAQ page (DPH, n.d.).

Today, there are a total of six Compassion Centers operating in the state of Delaware: three in New Castle County, two in Sussex, and one in Kent (DPH, n.d.). The most recent report from the MMP states that there were 12,045 registration cards issued to patients or their caregivers in the 2019 fiscal year. The majority of these patients (62%) are over the age of 50; only 7.7% of medical marijuana patients were under the age of 30 (DPH, 2019). Enacting the MMP in Delaware was a challenging process. The Delaware Medical Marijuana Act was signed in June 2011 by Governor Markell; however, it was still several years before eligible patients were able to obtain medical marijuana due to conflicting federal guidance on the legality of selling marijuana for medical purposes. After the Medical Marijuana Act was signed, the creation of Compassion Centers (i.e., dispensaries) was suspended in 2012. The MMP moved forward with accepting applications and enrolling patients into the program, and in 2013, 38 medical marijuana cards were issued to patients or their caregivers (DPH, 2013). The number of patients enrolled in the program increased dramatically in the years to follow, and in 2015 the First State Compassion Center officially opened in Wilmington. The MMP opened the Medical Marijuana Safety and Compliance Facility in January 2017 with the goal of testing medical marijuana products for patients in Delaware to ensure their safety and efficacy (DPH 2017). A survey of Delaware physicians in 2015 found that among those surveyed, half reported that they would be unlikely to prescribe medical marijuana for a patient because of either a lack of knowledge about the program, the fact that they do not typically see patients with qualifying conditions, or concerns about the misuse and diversion of medical marijuana (Rapp, Michalec, and Whittle, 2015). These findings suggest a need for more education and training for physicians regarding the MMP as it expands.
National Survey on Drug Use and Health
Marijuana Use and Perception of Risk in Delaware
by Age Group, 2017-2018 \(^a\)
(annual average percentages)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Total 12 or Older</th>
<th>AGE GROUP</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>12-17</td>
</tr>
<tr>
<td>Past Year Marijuana Use</td>
<td>17.11</td>
<td>14.03</td>
</tr>
<tr>
<td>Past Month Marijuana Use</td>
<td>11.16</td>
<td>8.19</td>
</tr>
<tr>
<td>Perceived of Great Risk of Smoking Marijuana Once a Month</td>
<td>21.60</td>
<td>22.00</td>
</tr>
</tbody>
</table>

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

Notes:
\(^a\) Estimates are based on a survey-weighted hierarchical Bayes estimation approach.
Source: “National Survey on Drug Use and Health: Comparison of 2016-2017 and 2017-2018 Population Percentages.” Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration

[Back to table of figures]
2019 Delaware School Survey
Marijuana Use among Delaware 5th Graders
(in percentages)

<table>
<thead>
<tr>
<th></th>
<th>Lifetime Use</th>
<th>Past Year Use</th>
<th>Past Month Use</th>
<th>Perceived Great Risk from:</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TRYING</td>
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<td>WEEKLY USE</td>
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<td>Statewide</td>
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<td>-</td>
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</tr>
<tr>
<td>Male</td>
<td>-</td>
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<tr>
<td>Female</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>21</td>
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</tbody>
</table>

Figure 2: Marijuana use, 5th graders

Note: “-” 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
2019 Delaware School Survey
Marijuana Use among Delaware 8th Graders
(in percentages)

Figure 3: Marijuana use, 8th graders

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.


Back to table of figures
2019 Delaware School Survey
Marijuana Use among Delaware 11th Graders
(in percentages)

Figure 4: Marijuana use, 11th graders

Note:

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.


Back to table of figures
2019 Delaware Youth Risk Behavior Survey
Middle School Students Who Report Ever Using Marijuana
(in percentages)

Figure 5: Lifetime marijuana use, by sex, grade, MS

Notes:
*Estimates are not statistically significant at the p<.05 level.
Because estimates of differences in use by race and ethnicity were too small (n<30) to reliably report, they were omitted from this figure.

Back to table of figures
2019 Delaware Youth Risk Behavior Survey
High School Students Who Report Ever Using Marijuana
(in percentages)

![Bar chart showing marijuana use by sex, grade, and race/ethnicity, HS]

Figure 6: Marijuana use in lifetime, by sex, grade, and race/ethnicity, HS

Note:
*Estimates are not statically significant at the p<.05 level.


Back to table of figures
2019 Delaware Youth Risk Behavior Survey
High School Students Who Used Marijuana in the Past 30 Days
(in percentages)

Figure 7: Marijuana use in the past 30 days, by sex, grade, and race/ethnicity, HS

Note:
*Estimates are not statically significant at the p<.05 level.
2019 Delaware Youth Risk Behavior Survey
High School Students Who Used Marijuana before Age 13
(in percentages)

Figure 8: Marijuana use before age 13, by sex, grade, and race/ethnicity, HS

Notes:
*Estimates are not statically significant at the p<.05 level.

Back to table of figures
2019 Delaware School Survey
Students’ Average Age of Onset for Marijuana Use

<table>
<thead>
<tr>
<th></th>
<th>8th Grade</th>
<th>11th Grade</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>13.2 years</td>
<td>15.2 years</td>
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</table>

Figure 9: Average age of onset for marijuana use, 8th and 11th grades, 2018

2019 Delaware School Survey
Method of Consumption for Past Month Marijuana Use
(in percentages)

Figure 10: Method of consumption for marijuana, 8th and 11th grade


Back to table of figures
Delaware School Survey
Trends in Delaware Students’ Past Month Marijuana Use by Grade, 1989-Present
(in percentages)

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

Note:
These statistics contribute to the National Outcome Measures (NOMs).

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

Figure 12: Trends in marijuana use, past month & lifetime, HS

Note:
*YRBS data was unweighted in 2019.

Back to table of figures
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>
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<th>Delaware</th>
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<tbody>
<tr>
<td>1999</td>
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<td>29</td>
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<tr>
<td>2001</td>
<td>24</td>
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<td>2017</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>2019*</td>
<td>22</td>
<td>24</td>
</tr>
</tbody>
</table>

Figure 13: Trends in marijuana use, past month, national and Delaware

Notes:  
*National YRBS data is weighted, Delaware YRBS data is unweighted in 2019.  
Sources:  

Back to table of figures
## National Survey on Drug Use and Health
### Past Year Marijuana Use by Age Group and Region
#### 2016-2017 and 2017-2018 NSDUH
##### (in percentages) \(^a\)

<table>
<thead>
<tr>
<th>AGE GROUP (Years)</th>
<th>12 or Older</th>
<th>12-17</th>
<th>18-25</th>
<th>26 or Older</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2016-2017</td>
<td>2017-2018</td>
<td>(p) value (^b)</td>
<td>2016-2017</td>
</tr>
<tr>
<td>Total U.S.</td>
<td>14.50</td>
<td>15.47</td>
<td>.000</td>
<td>12.19</td>
</tr>
<tr>
<td>Northeast</td>
<td>15.10</td>
<td>15.97</td>
<td>.003</td>
<td>12.29</td>
</tr>
<tr>
<td>Delaware</td>
<td>14.80</td>
<td>17.11</td>
<td>.001</td>
<td>13.48</td>
</tr>
</tbody>
</table>

Figure 14: Marijuana use, past year, 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 2016-2017 and 2017-2018 population percentages.

Source: “National Survey on Drug Use and Health: Comparison of 2016-2017 and 2017-2018 Population Percentages,” Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration

[Back to table of figures](#)
National Survey on Drug Use and Health
Past Month Marijuana Use by Age Group and Region
2016-2017 and 2017-2018
(in percentages) a

<table>
<thead>
<tr>
<th>AGE GROUP (Years)</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>9.23</td>
<td>9.83</td>
<td>.000</td>
<td>6.46</td>
</tr>
<tr>
<td>Northeast</td>
<td>9.83</td>
<td>10.25</td>
<td>.050</td>
<td>6.76</td>
</tr>
<tr>
<td>Delaware</td>
<td>9.95</td>
<td>11.16</td>
<td>.028</td>
<td>7.45</td>
</tr>
</tbody>
</table>

Figure 15: Marijuana 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 2016-2017 and 2017-2018 population percentages.

Source: “National Survey on Drug Use and Health: Comparison of 2016-2017 and 2017-2018 Population Percentages.” Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration

Back to table of figures
Monitoring the Future
National Trends in Past Month Marijuana Use among 8th, 10th, and 12th grade students, 1999-2019
(in percentages)

Figure 16: National trends in past month marijuana use, 8th, 10th, 12th grade

Sources: "National Survey Results on Drug Use, 1975-2019." Monitoring the Future Study (MTF), University of Michigan.

Back to table of figures
2019 Delaware Youth Risk Behavior Survey
High School Students Who Think People
Moderately or Greatly Risk Harming Themselves Physically or in Other Ways
When They Smoke Marijuana Once or Twice a Week
(in percentages)

Figure 17: Perception of risk from once- or twice-a-week marijuana use

<table>
<thead>
<tr>
<th></th>
<th>9th grade</th>
<th>10th grade</th>
<th>11th grade</th>
<th>12th grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic or Latino/a/x*</td>
<td>41</td>
<td>37</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>Non-Hispanic White*</td>
<td>41</td>
<td>37</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>Non-Hispanic Black*</td>
<td>41</td>
<td>37</td>
<td>40</td>
<td>45</td>
</tr>
</tbody>
</table>

Total: 34% for Male and 40% for Female.

Note:
*Estimates are not statically significant at the p<.05 level.

Back to table of figures
Delaware School Survey
(in percentages)

Figure 18: Trends in perception, “lot of risk” using marijuana weekly, fifth grade


Back to table of figures
Delaware School Survey
Trends in 8th and 11th Graders’ Perceptions of “Great Risk” in Using Marijuana Regularly, 1999-2019

(in percentages)

Figure 19: Trends in perception, “great risk” using marijuana regularly

Note:

a “Regularly” is self-defined in the survey.


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

## Perceptions of “Great Risk” in Smoking Marijuana Once a Month
### by Age Group and Region
#### 2016-2017 and 2017-2018
##### (in percentages) \(^a\)

<table>
<thead>
<tr>
<th>State</th>
<th>12 or Older</th>
<th>Age Group (Years)</th>
<th>12-17</th>
<th>18-25</th>
<th>26 or Older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total U.S.</td>
<td>26.91</td>
<td>25.54</td>
<td>.000</td>
<td>25.75</td>
<td>23.61</td>
</tr>
<tr>
<td>Northeast</td>
<td>25.33</td>
<td>24.58</td>
<td>.065</td>
<td>25.34</td>
<td>23.23</td>
</tr>
<tr>
<td>Delaware</td>
<td>24.32</td>
<td>21.60</td>
<td>.010</td>
<td>23.69</td>
<td>22.00</td>
</tr>
</tbody>
</table>

**Figure 20:** 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.

\(^b\) \(p\) value: Bayes significance levels for the null hypothesis of no change between the 2016-2017 and 2017-2018 population percentages.

**Source:** “National Survey on Drug Use and Health: Comparison of 2016-2017 and 2017-2018 Population Percentages.” Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration

[Back to table of figures](#)
### 2019 Delaware School Survey

11\(^{th}\) Graders Who Reported Smoking Marijuana and Driving (in percentages)

![Bar chart showing marijuana use and driving, 11\(^{th}\) graders]

<table>
<thead>
<tr>
<th></th>
<th>Lifetime</th>
<th>Past-Year</th>
<th>Past-Month</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statewide</strong></td>
<td>14</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td>16</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>12</td>
<td>9</td>
<td>5</td>
</tr>
</tbody>
</table>

Figure 21: Marijuana use and driving, 11\(^{th}\) graders


[Back to table of figures]
Delaware School Survey
Trends in Delaware
11th Graders Who Reported Smoking
Marijuana and Driving in the Past Month, 1999-2019
(in percentages)

Figure 22: Trends, smoking marijuana & driving, 11th graders


Back to table of figures
Figure 23: Map of marijuana use, past month, 8th grade
Reported Past Month Marijuana Use Among Delaware 11th Grade Public School Students: 2018-2019

Legend
- New Castle County
- Kent County
- Sussex County
- PO Box/Company Zip Codes
- Too Few to Estimate (N<30)

Rate of Marijuana Use
- 13-15.9%
- 16-21.9%
- 22-26.9%
- 27-33.9%
- 34-44%

State Rate: 23%

Data Note: Certain zip codes were combined to protect the confidentiality of the participating schools and districts.

Source: 2018-2019 Delaware School Survey
Center for Drug and Health Studies
University of Delaware
www.cchhs.udel.edu/seow

Figure 24: Map of marijuana use, past month, 11th grade
2. References

Marijuana


Substance Abuse and Mental Health Services Administration. (n.d.) [Table of data from the Treatment Episode Data Set]. *Delaware TEDS admissions aged 12 years and older, by primary substance use and gender, age at admission, race, and ethnicity: Percent, 2018.* Retrieved on October 1, 2019 from [https://wwwdasis.samhsa.gov/webt/newmapv1.htm#](https://wwwdasis.samhsa.gov/webt/newmapv1.htm#)


## Data Sources

<table>
<thead>
<tr>
<th>Data Instrument</th>
<th>Administered/Compiled by</th>
<th>Most Recent Data</th>
<th>Trend Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delaware Annual Traffic Statistical Report</td>
<td>Delaware State Police/Delaware Statistical and Analysis Center</td>
<td>2019</td>
<td>-</td>
</tr>
<tr>
<td>Delaware Behavioral Risk Factor Surveillance System (BRFSS)</td>
<td>DE Division of Public Health (sponsored by the CDC)</td>
<td>2018</td>
<td>-</td>
</tr>
<tr>
<td>Delaware Prescription Monitoring Program (PMP)</td>
<td>DE Department of State, Division of Professional Regulation</td>
<td>2018</td>
<td>2012- 2018</td>
</tr>
<tr>
<td>Delaware School Survey (DSS) – 5th, 8th, and 11th grades</td>
<td>Center for Drug and Health Studies, UD</td>
<td>2019</td>
<td>1999 - 2019</td>
</tr>
<tr>
<td>Delaware Youth Risk Behavior Survey (YRBS) – High School</td>
<td>Center for Drug and Health Studies, UD (sponsored by DE Division of Public Health and the CDC)</td>
<td>2019</td>
<td>1999 - 2019</td>
</tr>
<tr>
<td>Delaware Youth Risk Behavior Survey (YRBS) – Middle School</td>
<td>Center for Drug and Health Studies, UD (sponsored by Nemours)</td>
<td>2019</td>
<td>1999 - 2019</td>
</tr>
<tr>
<td>Delaware Youth Tobacco Survey – 6th – 12th grades</td>
<td>Center for Drug and Health Studies, UD (sponsored by DE Division of Public Health)</td>
<td>2018</td>
<td>-</td>
</tr>
<tr>
<td>Monitoring the Future – 8th, 10th, and 12th grades</td>
<td>University of Michigan (sponsored by the National Institute on Drug Abuse)</td>
<td>2019</td>
<td>1999 - 2019</td>
</tr>
<tr>
<td>Performance Measures, Delaware</td>
<td>National Highway Safety Administration</td>
<td>2018</td>
<td>2014-2018</td>
</tr>
<tr>
<td>National Survey on Children’s Health (NSCH)</td>
<td>US Health Resources &amp; Services Administration</td>
<td>2018</td>
<td>2016 - 2018</td>
</tr>
<tr>
<td>National Survey on Drug Use and Health (NSDUH)</td>
<td>US Substance Abuse and Mental Health Services Administration</td>
<td>2016 - 2018</td>
<td>2002 - 2018</td>
</tr>
<tr>
<td>Substance-Exposed Infant Program</td>
<td>Office of the Child Advocate</td>
<td>2019</td>
<td>2017-2019</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------------</td>
<td>------</td>
<td>-----------</td>
</tr>
<tr>
<td>Treatment Admissions Data</td>
<td>US Substance Abuse and Mental Health Services Administration, collected by Delaware Division of Substance Abuse and Mental Health</td>
<td>2019</td>
<td>2002 - 2019</td>
</tr>
</tbody>
</table>

In addition to the data sources for the figures and tables in the 2020 report, the following data sources are also cited throughout the narrative:

- America’s Health Rankings
- Bureau of Labor Statistics
- Centers for Disease Control and Prevention
- Delaware Department of Education
- Delaware Department of Safety and Homeland Security, Division of Forensic Science
- Delaware Health Tracker
- Delaware Household Health Survey
- Drug Enforcement Administration
- Health Resources and Services Administration
- KIDS COUNT in Delaware
- National Center for Health Statistics
- National Conference of State Legislatures
- National Institute on Drug Abuse
- National Institute on Mental Health
- RTI International
- State of Delaware Economic Development Office
- The Trevor Project
- U.S. Census Bureau