Tobacco and Electronic Cigarettes (Vaping)

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 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 tobacco use and vaping rates. To review the complete report, other chapters, or infographics 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
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

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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 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.
2021 DELAWARE STATE
EPIDEMIOLOGICAL PROFILE
SUBSTANCE USE AND RELATED ISSUES
Tobacco and Electronic Cigarettes (Vaping)

National Overview

More than 50 years ago, the U.S. surgeon general released a comprehensive report documenting strong evidence that linked cigarette smoking to lung cancer and other conditions. In addition to cancers, tobacco use has been linked to heart and respiratory diseases, fetal distress, and other dangerous health conditions. Over the decades, increased knowledge of the risks of smoking has had a positive impact; however, tobacco use remains an issue nationally and locally. Despite significant declines in tobacco use, more than 16 million Americans have at least one disease caused by smoking, which is associated with approximately $170 billion of direct medical costs annually (Centers for Disease Control and Prevention [CDC], 2020). Yearly, almost one in five deaths in the U.S. are linked to cigarettes, and these deaths are entirely preventable.

Nationwide, there has been a decrease in the use of tobacco products over the past several decades. In 2017, roughly 14% of adults in the U.S. reported being current cigarette smokers, reflecting a 67% decrease in cigarette use since 1965 (Wang, Asman, Gentzke, et al., 2018). Among adults who smoke, more than two-thirds report that they want to quit, although rates of quitting decrease with age (Babb, Malarcher, Schauer, Asman, & Jamal, 2017). High school respondents to the National Youth Risk Behavior Survey (NYRBS) reported current smoking at 27.5% in 1991 and 6% in 2019 (CDC, 2020). During that same time period, the number of high school youth who reported ever trying cigarette smoking declined from approximately 70% of respondents to 24.1% (CDC, 2020). The CDC reports that the rate of decline has slowed in recent years. In addition, sharp disparities in use between populations are apparent (CDC, n.d.).

Increasingly, youth and adults are using electronic cigarettes or “vaping” in place of, or in addition to, cigarettes. Nationally, youth vape at a greater rate than they use any other tobacco product, including cigarettes (Jamal et al., 2017). A 2016 surgeon general’s report estimated a 900% increase in youth use of e-cigarettes between 2011-2015. One analysis of results from the 2016 National Youth Tobacco Survey found that the three main reasons middle and high school students give for using e-cigarettes are a friend or family member used them, there are multiple flavor options, and there is a perception of lower risk (Tsai et al., 2018). While e-cigarettes are marketed as less dangerous than regular cigarettes, they still contain nicotine,
aerosol, and additional chemicals that may be toxic to the health of the user (Office of the Surgeon General, 2016). Vaping has also been linked to a greater risk of using other tobacco products, including regular cigarettes. The health impacts of e-cigarettes are still being studied, and some risks may not be known at this time. The use of e-cigarettes is particularly problematic for youth: nicotine is addictive and has been shown to interfere with healthy brain development during adolescence and young adulthood. E-cigarette devices can also be used for marijuana and other illegal substances (Office of the Surgeon General, 2016). Newer products, such as JUUL (a brand featuring small devices that look like flash drives and thus are deceptive in appearance), seem to be specifically designed to appeal to youth. The company Juul Labs, responsible for creating and marketing Juul vaping devices, has been the subject of lawsuits filed by several states claiming that their product was marketed to underage users. In Summer 2021, the first of these lawsuits was settled in North Carolina and the company was required to pay $40 million as well as drastically change the advertising and sale of its products (Langmaid, 2021).

**Delaware Overview**

According to the CDC, 16.5% of adults in Delaware smoked cigarettes in 2018 and there are approximately 1,400 related deaths reported each year (CDC, 2020). In 2009, an estimated $532 million was spent throughout the state on healthcare costs related to smoking. Efforts to control and prevent tobacco use also have high costs; the CDC provided $768K to the State of Delaware for tobacco prevention and control activities in FY2019 (CDC, 2020). If current tobacco usage trends stay stable, the CDC projects that approximately 17,000 Delawareans who were minors in 2012 will die from a smoking-related illness at some point in their lives (Office of Surgeon General, 2014, p. 693).

Mirroring national trends, data from five major survey sources (Behavioral Risk Factor Surveillance System, National Survey of Drug Use and Health, Youth Risk Behavior Survey, Delaware School Survey, and Youth Tobacco Survey) illustrate a steady decline in cigarette use among Delaware residents since the late 1990s. Twenty years ago, more than a third of 11th graders reported regularly using cigarettes; in 2019, approximately 3% of 11th graders reported currently smoking cigarettes (Delaware School Survey [DSS], 2019). The average age of onset for cigarette use is 11.8 years among 8th who responded to the 2020 DSS. Adult rates have declined as well; self-reports of past month smoking among Delaware adults decreased from 21.8% in 2011 compared to 15.9% in 2019 (Behavioral Risk Factor Surveillance System [BRFSS], 2019). The BRFSS also indicates that smoking tends to be most common among the 25-34 year age group and is associated with lower levels of educational attainment (2019).

Although rates of cigarette use have declined steadily over the past 20 years among Delaware youth, 6% of Delaware middle school students report that they have either smoked cigarettes, cigars, used smokeless tobacco, or an electronic vaping product within the past month.
(Delaware Middle School Youth Risk Behavior Survey [YRBS], 2019). Equally concerning, there is a 10% one-year drop (from 56% to 46%) in the rate of 8\textsuperscript{th} graders who perceive there is great risk from smoking a pack of cigarettes per day (DSS, 2019 and 2020). While there has been variation in this indicator over the years, this is the first time it has dipped to below half of all 8\textsuperscript{th} graders in 20 years. Perception of risk and use of all tobacco and vaping products should continue to be monitored.

While the decline in cigarette use in Delaware is promising, there has been a troubling concern over the past decade in the use of e-cigarettes or vaping devices for both youth and adults. A preference for vaping over cigarettes may be due to individuals perceiving these products as safer alternatives to cigarettes. However, YRBS trend data indicates that the rate of vaping has steadily declined from 8.14% in 2015 to 4.6% in 2019 among Delaware middle school students. This will be an important indicator to watch in the future and may be related to collaborative efforts to reduce vaping. (For a [detailed profile of vaping among Delaware youth](https://www.dehealth.gov/publications/delaware-journal-of-public-health-august-2020) and a discussion of statewide prevention efforts compiled by SEOW stakeholders, please see the [Delaware Journal of Public Health August 2020](https://www.dehealth.gov/publications/delaware-journal-of-public-health-august-2020).)

### Data in Action: E-cigarette Use or Vaping During the COVID-19

E-cigarettes can harm young, developing brains and impact learning, memory, and attention due to nicotine exposure (Office of the Surgeon General, 2016). Now with the ongoing COVID-19 pandemic, there are additional reasons why use of e-cigarettes and vaping may lead to health concerns among adolescents. Currently, there are no studies in the U.S. that provide evidence concerning the direct relationship between e-cigarette use and COVID-19 related outcomes. However, a recent study found that e-cigarette use among youth is associated with an increased likelihood of experiencing COVID-19 (Gaiha, Cheng, and Halpern-Felsher, 2020). In that survey, youth who had ever used e-cigarettes were five times as likely to experience COVID-19, and those who vaped and used combustible tobacco products were at an even greater risk.

Vaping exposes an individual to nicotine and other chemicals (e.g., tetrahydrocannabinol, Vitamin E acetate) that negatively affect lung function (Hamberger and Halpern-Felsher, 2020) and increase the risk of heart disease and respiratory infections. Additionally, e-cigarette users often share devices with one another and a primary concern of spreading COVID-19 is through repeated touching of an individual’s face by their hands (Berlin et al., 2020) and spreading infection through saliva. While it is possible that stay-at-home orders may have reduced the likelihood of sharing vaping devices with others, many students have now returned to in-school learning.

Although many proponents of vaping argue that use of e-cigarettes and vaping devices have helped them to quit or avoid using combustible cigarettes, experts caution that these products are not a safe alternative, especially when considering related lung injuries. People who do not currently use e-cigarettes or vape are strongly discouraged from starting, and for people who wish to quit, resources are available through the Healthy Delaware’s [online toolkit](https://www.dehealth.gov/quit-smoking-and-vaping).
National Survey on Drug Use and Health
Past-Month Tobacco and Cigarette Use
and Perceptions of Great Risk in Delaware
by Age Group, 2018-2019
(annual average percentages)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Total 12 or Older</th>
<th>AGE GROUP</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>12-17</td>
<td>18-25</td>
<td>26 or Older</td>
<td></td>
</tr>
<tr>
<td>Tobacco products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past month tobacco product use b</td>
<td>22.60</td>
<td>4.04</td>
<td>25.59</td>
<td>24.12</td>
<td></td>
</tr>
<tr>
<td>Past month cigarette use</td>
<td>17.46</td>
<td>1.93</td>
<td>17.84</td>
<td>19.03</td>
<td></td>
</tr>
<tr>
<td>Perceived great risk of smoking one or more packs of cigarettes per day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>71.81</td>
<td>64.68</td>
<td>67.31</td>
<td>73.19</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: Tobacco/cigarette use & perceptions of great risk

Notes:

a Estimates are based on a survey-weighted hierarchical Bayes estimation approach.
b Tobacco products include cigarettes, smokeless tobacco (i.e., snuff, dip, chewing tobacco, or snus), cigars, or pipe tobacco.

2020 Delaware School Survey
Cigarette 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>Perceived “Great Risk” from Pack or More a Day</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statewide</strong></td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>46</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td>4*</td>
<td>3*</td>
<td>-</td>
<td>42</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>3*</td>
<td>2*</td>
<td>-</td>
<td>50</td>
</tr>
</tbody>
</table>

Figure 2: Cigarette use, 8th 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
2020 Delaware School Survey
Electronic Cigarette/Vaping Device 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>Perceived &quot;Great Risk&quot; from Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide</td>
<td>21</td>
<td>13</td>
<td>5</td>
<td>28</td>
</tr>
<tr>
<td>Male</td>
<td>18</td>
<td>11</td>
<td>5*</td>
<td>24</td>
</tr>
<tr>
<td>Female</td>
<td>23</td>
<td>15</td>
<td>5*</td>
<td>31</td>
</tr>
</tbody>
</table>

Figure 3: Electronic cigarette/vaping device use, 8th graders

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

Back to table of figures
2020 Delaware School Survey
Average Age of Onset for Cigarette Use

<table>
<thead>
<tr>
<th>Grade</th>
<th>8th Grade</th>
<th>11th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Age of Onset for Cigarette Use</td>
<td>11.8 years</td>
<td>-</td>
</tr>
</tbody>
</table>

Figure 4: Average age of onset\(^1\) for cigarette use, 8\(^{th}\) and 11\(^{th}\) graders\(^2\)

Note:
\(^1\) Average age of onset calculated among students who report ever smoking a cigarette
\(^2\) Delaware School Survey data was unavailable in 2020 for 11\(^{th}\) grade students

2019 Middle School Youth Risk Behavior Survey
Students Who Currently Smoked Cigarettes* 2007-2019 (In Percentages)

Figure 5: Trends in current cigarette use, MS

Notes:
*On at least 1 day during the 30 days before the survey
Decreased 2007-2019, decreased 2007-2011, decreased 2011-2019 [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
2019 Middle School Youth Risk Behavior Survey
Students Who Currently Used Vapor Products* 2015-2019 (in percentages)

Figure 6: Trends in current vaping, MS

Notes:
*On at least 1 day during the 30 days before the survey
Decreased 2015-2019 [Based on linear trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade (p < 0.05).] This graph contains weighted results.

Students Who Currently Smoked Cigarettes or Cigars or Use Smokeless Tobacco or Electronic Vapor Products* (in percentages)

Figure 7: Current use of cigarettes, cigars, smokeless tobacco, or vape products, MS

Notes:
*On at least 1 day during the 30 days before the survey
†H > B, H > W (Based on t-test analysis, p < 0.05.)
All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.
This graph contains weighted results.

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

### Adult Cigarette Smoking by Sex, 2019

<table>
<thead>
<tr>
<th>Sex</th>
<th>Current Smokers</th>
<th>Smoke Everyday</th>
<th>Smoke Some Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>15.9%</td>
<td>11.0%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Male</td>
<td>15.8%</td>
<td>11.0%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Female</td>
<td>16.0%</td>
<td>11.0%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

Figure 8: Cigarette smoking by sex, adult

### Adult Cigarette Smoking by Race/Ethnicity, 2019

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Current Smokers</th>
<th>Smoke Everyday</th>
<th>Smoke Some Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>15.9%</td>
<td>11.0%</td>
<td>4.9%</td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>16.8%</td>
<td>12.6%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>16.9%</td>
<td>9.5%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8.6%</td>
<td>4.1%</td>
<td>-</td>
</tr>
<tr>
<td>American Indian or Alaskan Native, non-Hispanic</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Figure 9: Cigarette smoking by race/ethnicity, adult

Note:
“-” indicates that the prevalence estimate was not available if the unweighted sample size for the denominator was <50 or the Relative Standard Error (RSE) is >0.3.


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

### Adult Cigarette Smoking by Educational Level, 2019

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Current Smokers</th>
<th>Smoke Everyday</th>
<th>Smoke Some Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>15.9%</td>
<td>11.0%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Less Than High School</td>
<td>24.9%</td>
<td>17.4%</td>
<td>7.5%</td>
</tr>
<tr>
<td>High School / G.E.D.</td>
<td>23.9%</td>
<td>17.1%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Some Post-H.S.</td>
<td>14.7%</td>
<td>9.7%</td>
<td>5.0%</td>
</tr>
<tr>
<td>College Graduate</td>
<td>5.5%</td>
<td>3.5%</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

Figure 10: Cigarette smoking by educational level, adult

### Adult Cigarette Smoking by Age Group, 2019

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Current Smokers</th>
<th>Smoke Everyday</th>
<th>Smoke Some Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>15.9%</td>
<td>11.0%</td>
<td>4.9%</td>
</tr>
<tr>
<td>18 - 24</td>
<td>15.6%</td>
<td>12.0%</td>
<td>-</td>
</tr>
<tr>
<td>25 - 34</td>
<td>21.7%</td>
<td>14.8%</td>
<td>6.9%</td>
</tr>
<tr>
<td>35 - 44</td>
<td>17.0%</td>
<td>11.1%</td>
<td>-</td>
</tr>
<tr>
<td>45 - 54</td>
<td>16.3%</td>
<td>12.8%</td>
<td>3.5%</td>
</tr>
<tr>
<td>55 - 64</td>
<td>17.1%</td>
<td>11.8%</td>
<td>5.3%</td>
</tr>
<tr>
<td>65 and Older</td>
<td>10.4%</td>
<td>6.2%</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

Figure 11: Cigarette smoking by age group, adult

Note:

“-“ indicates that the prevalence estimate was not available if the unweighted sample size for the denominator was <50 or the Relative Standard Error (RSE) is >0.3.


[Back to table of figures]
Delaware School Survey
Trends in Past Month Cigarette Use, 8th and 11th grade, 1999-present (in percentages)

Figure 12: Trends in students’ past-month cigarette use, 8th and 11th grade

Notes: In 2019, the number of 8th grade students reporting past month cigarette use was too small to report.
11th grade data not available for the 2020 Delaware School Survey.
Delaware School Survey
Trends in Vaping among 11th Grade Students
(in percentages)

Figure 13: Trends in vaping, 11th grade

Notes:
Vaping includes use of e-cigarettes, Juul, or any other vaping device.
In 2020, 11th grade data was unavailable.


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National Survey on Drug Use and Health
Past-Month Tobacco Product Use by Age Group and Region, 2017-2018 and 2018-2019 (in percentages)

<table>
<thead>
<tr>
<th>AGE GROUP</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>21.96</td>
<td>21.28</td>
<td>.000</td>
<td>4.55</td>
</tr>
<tr>
<td>Northeast</td>
<td>20.30</td>
<td>19.28</td>
<td>.005</td>
<td>4.18</td>
</tr>
<tr>
<td>Delaware</td>
<td>23.59</td>
<td>22.60</td>
<td>.317</td>
<td>4.94</td>
</tr>
</tbody>
</table>

Figure 14: Tobacco product use, past month, by age group and region

Past-Month Cigarette Use by Age Group and Region, 2017-2018 and 2018-2019 (in percentages)

<table>
<thead>
<tr>
<th>AGE GROUP</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>17.52</td>
<td>16.91</td>
<td>.000</td>
<td>2.93</td>
</tr>
<tr>
<td>Northeast</td>
<td>16.22</td>
<td>15.43</td>
<td>.011</td>
<td>2.60</td>
</tr>
<tr>
<td>Delaware</td>
<td>18.99</td>
<td>17.46</td>
<td>.077</td>
<td>2.81</td>
</tr>
</tbody>
</table>

Figure 15: Cigarette 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.


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National Survey on Drug Use and Health
National and Delaware
People (12 and Older) Reporting Cigarette Use in Past Month
(in percentages)

Figure 16: Trends in cigarette use, past-month, national & Del., ages 12+


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National Survey on Drug Use and Health
National and Delaware
Adolescents (12-17) Reporting Cigarette Use in Past Month
(in percentages)

Figure 17: Trends in cigarette use, past-month, national & Del., ages 12-17


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Monitoring the Future, 1999-2020
National Trends in Past Month Cigarette Use among 8th, 10th, and 12th Grade Students
(in percentages)

Figure 18: Trends in cigarette use, past month, national, 8th, 10th, and 12th grades


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Delaware School Survey, 2002-2020
Students’ Perceptions of Great Risks
from Smoking a Pack of Cigarettes Daily
(in percentages)

Figure 19: Trends in perceived great risk from smoking pack daily

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 Risks from Smoking One or More Packs of Cigarettes per Day by Age Group and Region, 2017-2018 and 2018-2019**

*(in percentages)*

<table>
<thead>
<tr>
<th>State</th>
<th>12 or Older</th>
<th></th>
<th>12-17</th>
<th></th>
<th>18-25</th>
<th></th>
<th>26 or Older</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total U.S.</td>
<td>71.73</td>
<td>71.52</td>
<td>.303</td>
<td>66.27</td>
<td>65.16</td>
<td>.002</td>
<td>67.04</td>
<td>66.86</td>
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<tr>
<td>Northeast</td>
<td>74.17</td>
<td>73.98</td>
<td>.617</td>
<td>68.78</td>
<td>67.15</td>
<td>.002</td>
<td>69.14</td>
<td>69.14</td>
</tr>
<tr>
<td>Delaware</td>
<td>71.54</td>
<td>71.81</td>
<td>.773</td>
<td>67.52</td>
<td>64.68</td>
<td>.079</td>
<td>70.30</td>
<td>67.31</td>
</tr>
</tbody>
</table>

Figure 20: Perception of risk in smoking 1+ packs/day 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.


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References

Tobacco


## 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) – 5&lt;sup&gt;th&lt;/sup&gt; and 11&lt;sup&gt;th&lt;/sup&gt; grades 8&lt;sup&gt;th&lt;/sup&gt; 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 – 8&lt;sup&gt;th&lt;/sup&gt;, 10&lt;sup&gt;th&lt;/sup&gt;, and 12&lt;sup&gt;th&lt;/sup&gt; 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