

Tobacco and Electronic Cigarettes (Vaping)

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 tobacco use and vaping rates. To review the complete report, slides, infographics, and other SEOW data products, please visit the UD Center for Drug and Health Studies [Delaware Epidemiological Reports](#) page. Video recordings of select SEOW presentations referenced in this report are also [available online](#).

SEOW Collaborators

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

atTAcK Addiction
Bellevue Community Center
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
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 Division of Alcohol and Tobacco Enforcement
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 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
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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. 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

Cigarette use has declined for youth and adults in Delaware over the past 20 years.

Of concern, the rate of Delaware youth who perceive great risk of harm from heavy smoking is also declining.

Delaware 8th and 11th graders report higher rates of vaping in the past month than smoking cigarettes.

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 costs the U.S. billions of dollars annually (Centers for Disease Control and Prevention [CDC], n.d.). Yearly, almost one in five deaths in the U.S. are linked to cigarettes, and these deaths are entirely preventable (CDC, 2020).

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 (YRBS) 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).

More recently, 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). Results from the 2019 National YRBS indicate that one in three high school students had vaped within the month prior to the survey (CDC, 2020). 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 (Surgeon

General, n.d.). 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 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 multiple 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).¹

Delaware Overview

[According to the CDC](#), 15.9% of adults in Delaware smoked cigarettes in 2019 and there are approximately 1,400 related deaths reported each year (CDC, n.d.). In 2009, an estimated \$532 million was spent throughout the state on healthcare costs related to smoking. To combat this public health threat, the CDC provided \$956K to the State of Delaware for tobacco prevention and control activities in FY2020 (CDC, n.d.).

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).² In 2020, only 1% of 8th graders reported current use of cigarettes on the DSS. Adult rates have declined as well; self-reports of past month smoking among Delaware adults decreased from 21.8% in 2011 compared to 15.1% in 2020 (Behavioral Risk Factor Surveillance System [BRFSS], 2020). However, the BRFSS also estimates that one in ten adults smoke cigarettes every day. Smoking rates are associated with being male, being aged 25-34 years old, and lower levels of educational attainment (2020).

Although rates of cigarette use alone have declined steadily over the past 20 years among Delaware youth, approximately 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).

¹ More recently, JUUL agreed to a tentative multistate settlement of \$438.5 million; however, additional legal challenges are continuing. At the time of this report's publication, the company's application for permanent sales in the U.S. remains under review with the Food and Drug Administration (Jewett, 2022.)

² In 2021, the number of 8th grade and 11th grade students reporting past month cigarette use on the Delaware School Survey were too small (n<30) to report.

There has also been a decline in the rate of 8th graders' perception of great risk of harm from smoking a pack of cigarettes per day over the past decade (DSS, 2011-2021). While there has been variation in this indicator over the years, it has dipped to below half of all 8th graders recently.

While the decline in cigarette use in Delaware is positive, there has been troubling concern over the past decade regarding the use of e-cigarettes or vaping devices for both youth and adults. A preference for vaping over cigarettes may be due to the perception of 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. The 2021 DSS also shows a decline in past month vaping rates among 11th graders, from a peak of 18% in 2019 to 7% in 2021. It should be noted, however, that due to the pandemic the DSS was not administered to 11th grade students in 2020 and data collection challenges have persisted since students returned to school requiring changes from paper and pencil, in-person administrations to online surveys in 2021. Therefore, changes in reported consumption rates may be due, in part, to changes in survey methods or other impacts of the pandemic and subsequent school closures. Nevertheless, vaping prevention has been a focus of a number of state and community-based initiatives in recent years which may have contributed to the decline in use. It will be important to continue to monitor vaping as well as all forms of tobacco use in the future.

For a [detailed profile of vaping among Delaware youth](#) compiled by SEOW stakeholders highlighting statewide prevention efforts, please see the [Delaware Journal of Public Health August 2020](#).

Data in Action: Recent FDA Measures to Curb Vaping and Combustible Tobacco Products

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. Vaping can expose an individual to nicotine and other chemicals that negatively affect lung function (Hamberger and Halpern-Felsher, 2020) and increase the risk of heart disease and respiratory infections. E-cigarettes can harm young, developing brains and impact learning, memory, and attention due to nicotine exposure (Office of the Surgeon General, 2016). In 2020, the U.S. Food and Drug Administration (FDA) banned unapproved flavored e-cigarette products such as those using fruit and mint flavors that are particularly appealing to youth. However, the ban only applied to products using tobacco. Companies such as Puff Bar began using synthetic nicotine (created in a laboratory rather than naturally derived from tobacco plants) thus exploiting a loophole in the ban. A new federal law passed in April 2022 addresses this gap by allowing the FDA to enforce regulations regarding approval and age requirements for the sale of e-cigarette products regardless of the source of nicotine.

Early this year, the FDA also proposed [a product standard](#) to limit the levels of nicotine in cigarettes and other combustible tobacco products. In addition, the agency has announced a [proposed ban](#) on the use of menthol in tobacco products. According to a recent National Institutes of Health [study](#), the longstanding, targeted marketing of menthol cigarettes to African American communities have contributed to the smoking-related health disparities born by this population (Mendez & Le, 2022).

**National Survey on Drug Use and Health
Past Month Tobacco and Cigarette Use
and Perceptions of Great Risk in Delaware
by Age Group, 2019-2020
(annual average percentages)**

Rates of past month use and perceptions of great risk in Delaware by age group: annual average percentages based on 2019-2020 NSDUH ^a				
Measure	Total 12 or Older	AGE GROUP		
		12-17	18-25	26 or Older
Tobacco products				
Past month tobacco product use ^b	20.25	2.76	18.99	22.25
Past month cigarette use	16.12	1.16	14.26	17.92
Perceived great risk of smoking one or more packs of cigarettes per day	73.14	65.93	69.09	74.43

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

Notes:

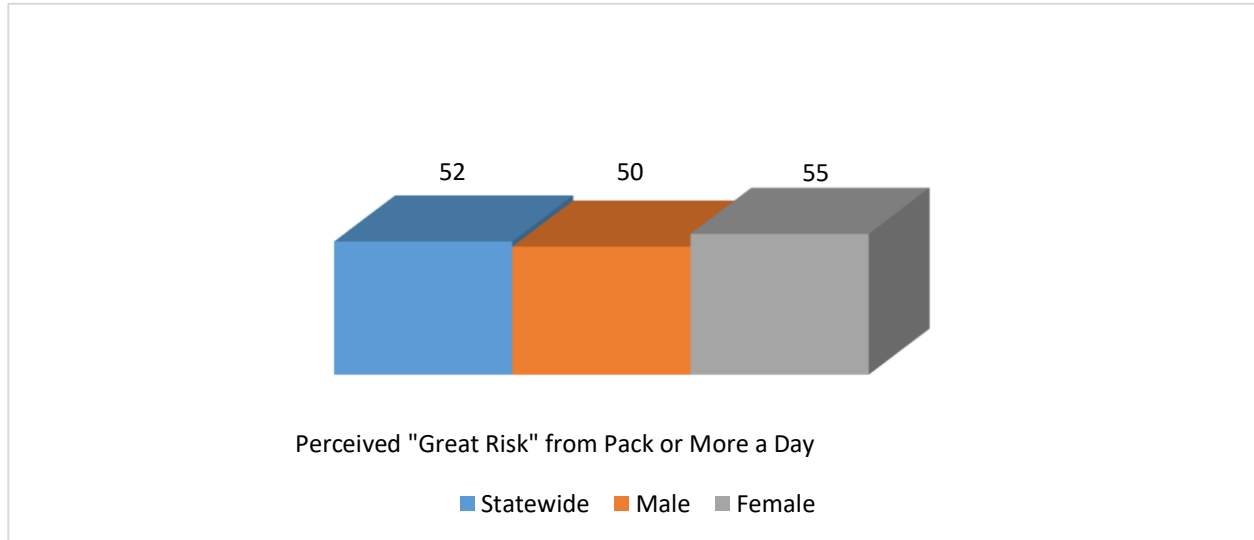
^a Estimates are based on a survey-weighted hierarchical Bayes estimation approach and generated by Markov Chain Monte Carlo techniques.

^b Tobacco products include cigarettes, smokeless tobacco (i.e., snuff, dip, chewing tobacco, or snus), cigars, or pipe tobacco.

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 Cigarette Use among Delaware 5th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use	Perceived "Great Risk" from Pack or More a Day
Statewide	-	-	-	52
Male	-	-	-	50*
Female	-	-	-	55*

Figure 2: Cigarette use, 5th grade

Notes:

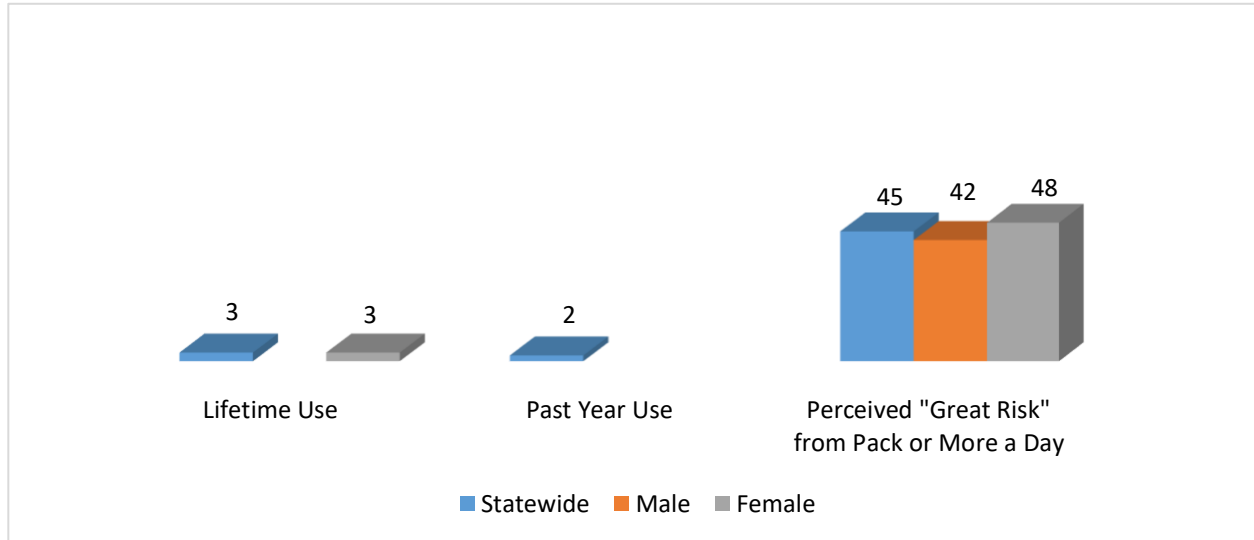
"-" indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

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

Source: [Center for Drug & Health Studies. \(2021\). Delaware School Survey: 5th Grade \[Annual Survey\]. University of Delaware.](#)

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2021 Delaware School Survey Cigarette Use among Delaware 8th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use	Perceived "Great Risk" from Pack or More a Day
Statewide	3	2	-	45
Male	-	-	-	42
Female	3*	-	-	48

Figure 3: Cigarette use, 8th grade

Notes:

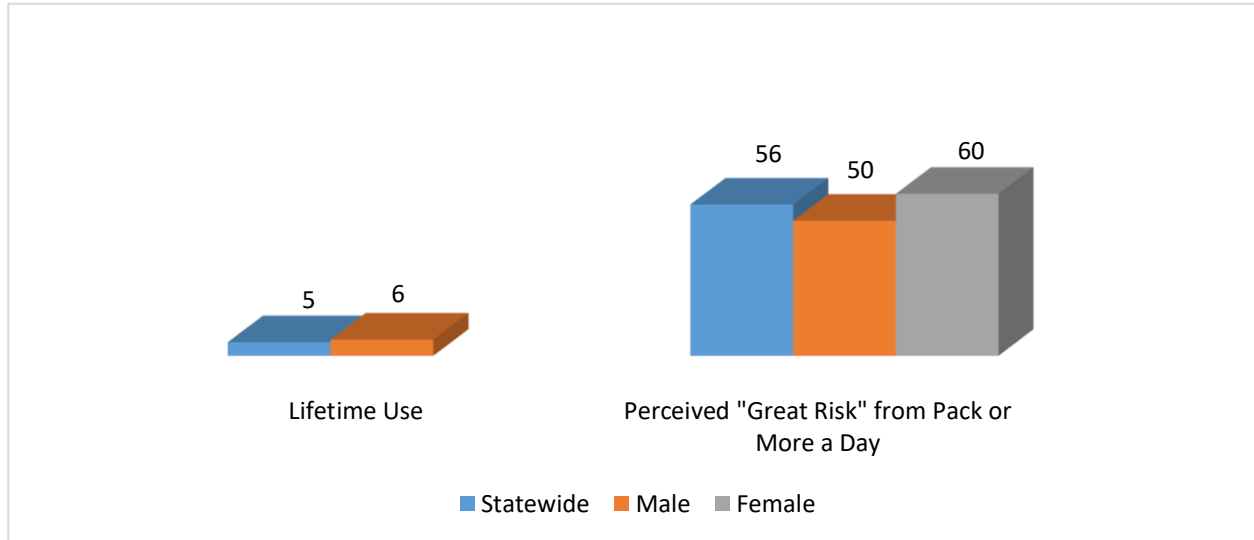
"-" indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

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

Source: [Center for Drug & Health Studies. \(2021\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2021 Delaware School Survey Cigarette Use among Delaware 11th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use	Perceived "Great Risk" from Pack or More a Day
Statewide	5	-	-	56
Male	6*	-	-	50
Female	-	-	-	60

Figure 4: Cigarette use, 11th grade

Notes:

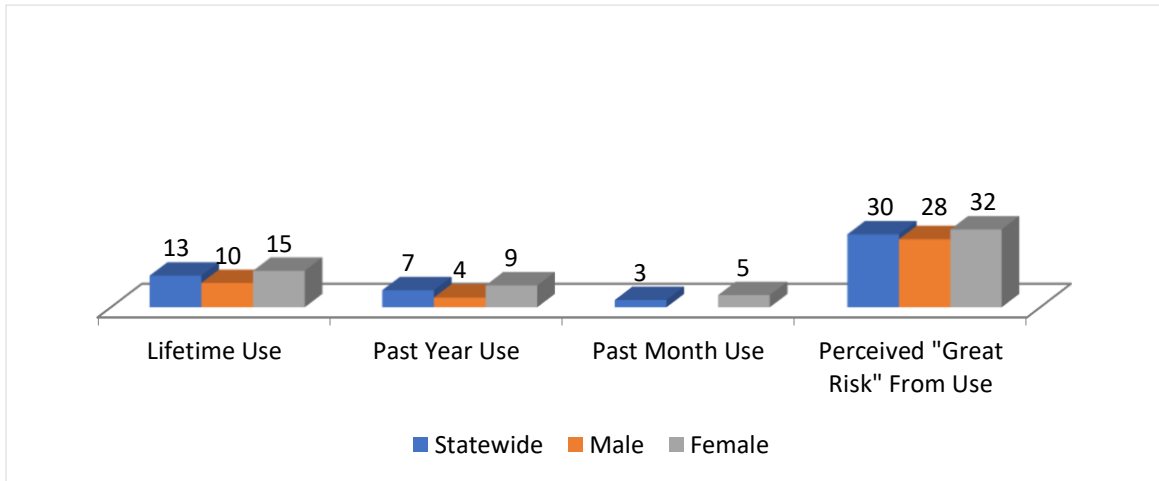
"-" indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

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

Source: [Center for Drug & Health Studies. \(2021\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2021 Delaware School Survey Electronic Cigarette/Vaping Device Use among Delaware 8th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use	Perceived "Great Risk" from Use
Statewide	13	7	3	30
Male	10	4	-	28
Female	15	9	5	32

Figure 5: Electronic cigarette/vaping device use, 8th grade

Note:

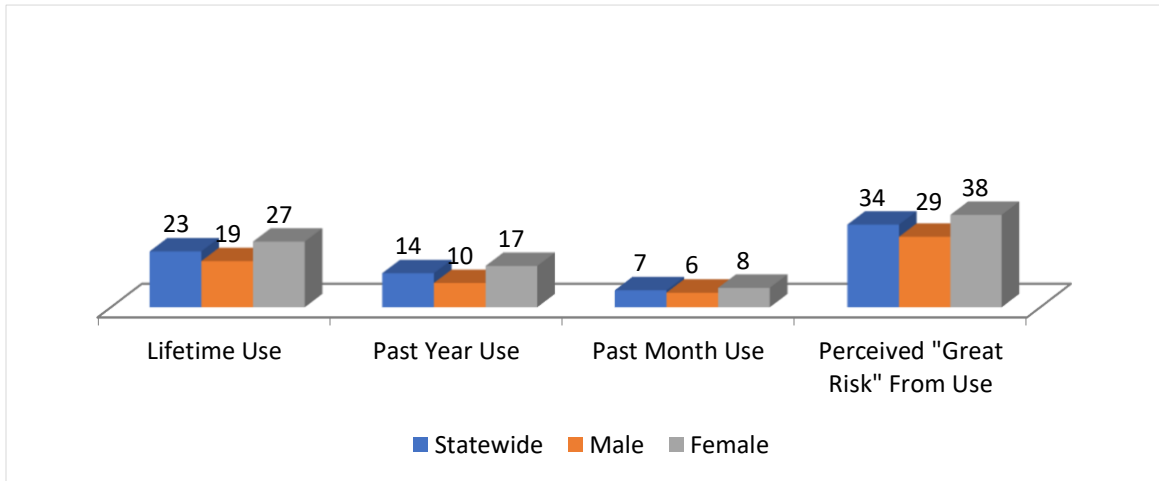
"-" indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

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

Source: [Center for Drug & Health Studies. \(2021\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2021 Delaware School Survey Electronic Cigarette/Vaping Device Use among Delaware 11th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use	Perceived "Great Risk" from Use
Statewide	23	14	7	34
Male	19	10	6*	29
Female	27	17	8*	38

Figure 6: Electronic cigarette/vaping device use, 11th grade

Note:

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

Source: [Center for Drug & Health Studies. \(2021\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2021 Delaware School Survey

Average Age of Onset for Cigarette Use

8 th Grade	11 th Grade
11.9 years	13.6 years

Figure 7: Average age of onset¹ for cigarette use, 8th and 11th grade

Note:

¹ Average age of onset calculated among students who report ever smoking a cigarette

Source: [Center for Drug & Health Studies. \(2021\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

2019 Middle School Youth Risk Behavior Survey

Students Who Currently Smoked Cigarettes* 2007-2019 (In Percentages)

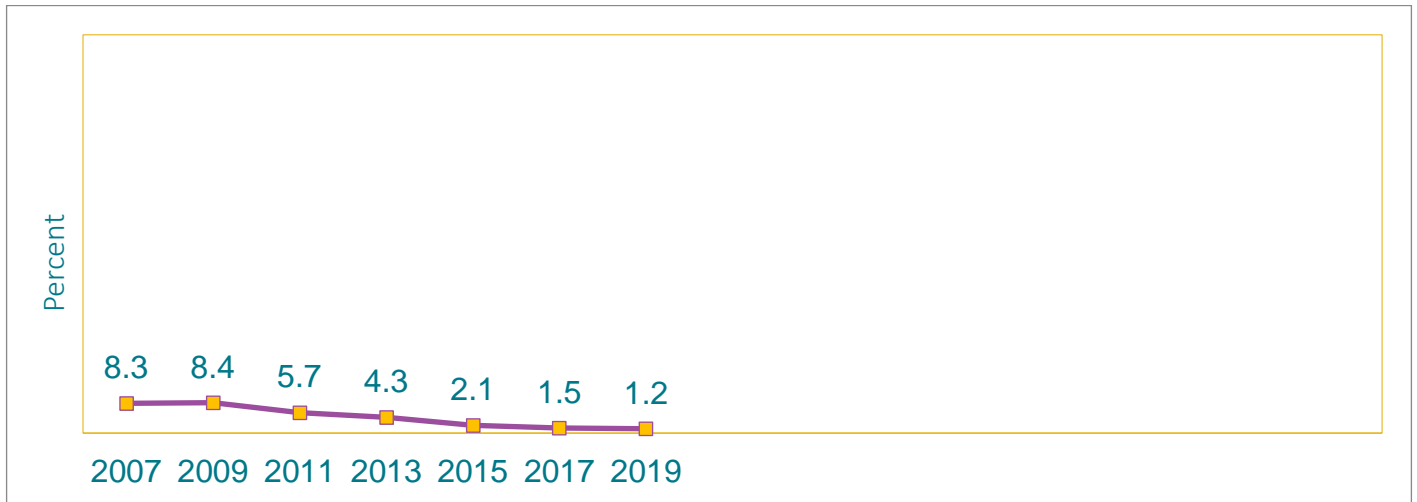


Figure 8: Trends in current cigarette use, MS

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.

Source: ["2019 Delaware Youth Risk Behavior Survey, Middle School." Delaware Middle School Graphs. Centers for Disease Control and Prevention.](#)

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2019 Middle School Youth Risk Behavior Survey

Students Who Currently Used Vapor Products* 2015-2019 (in percentages)

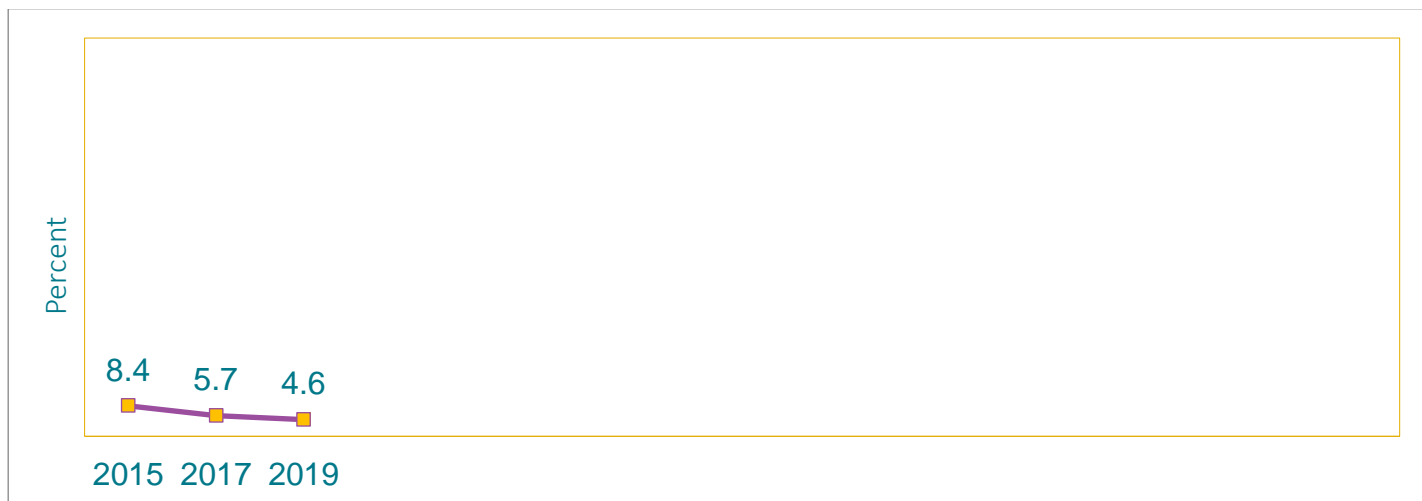


Figure 9: Trends in current vaping, MS

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)

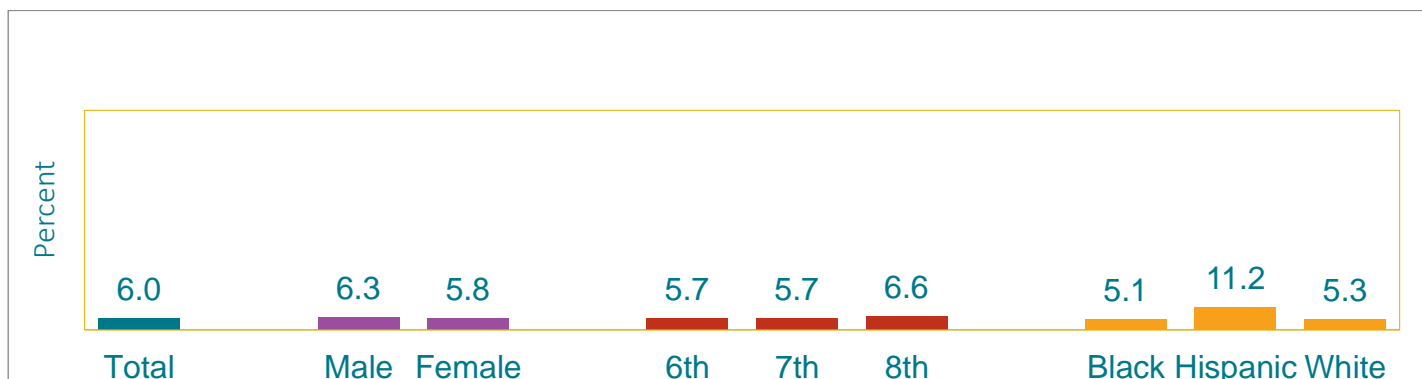


Figure 10: Current use of cigarettes, cigars, smokeless tobacco, or vape products, MS

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.

Source: ["2019 Delaware Youth Risk Behavior Survey, Middle School." Delaware Middle School Graphs. Centers for Disease Control and Prevention.](#)

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2020 Delaware Behavior Risk Factor Surveillance System (BRFSS)

Delaware Adult Cigarette Smoking by Sex

Sex	Current Smokers	Smoke Everyday	Smoke Some Days
Overall	15.1%	10.6%	4.5%
Male	18.0%	12.3%	5.7%
Female	12.6%	9.1%	3.4%

Figure 11: Cigarette smoking by sex, Delaware adults

Delaware Adult Cigarette Smoking by Race/Ethnicity

Race/Ethnicity	Current Smokers	Smoke Everyday	Smoke Some Days
Overall	15.1%	10.6%	4.5%
White, non-Hispanic	15.4%	11.2%	4.2%
Black, non-Hispanic	16.2%	10.4%	5.8%
Hispanic	14.0%	9.8%	4.2%
American Indian or Alaskan Native, non-Hispanic	-	-	-

Figure 12: Cigarette smoking by race/ethnicity, Delaware adults

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.

Source: [“2020 Delaware Behavior Risk Factor Surveillance System.” BRFSS Prevalence & Trends Data, Centers for Disease Control and Prevention.](#)

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2020 Delaware Behavior Risk Factor Surveillance System (BRFSS)

Delaware Adult Cigarette Smoking by Educational Level

Educational Level	Current Smokers	Smoke Everyday	Smoke Some Days
Overall	15.1%	10.6%	4.5%
Less Than High School	27.9%	21.2%	6.7%
High School / G.E.D.	19.6%	14.2%	5.4%
Some Post-H.S.	15.7%	11.3%	4.4%
College Graduate	5.6%	2.6%	3.0%

Figure 13: Cigarette smoking by educational level, Delaware adults

Delaware Adult Cigarette Smoking by Age Group

Age Group	Current Smokers	Smoke Everyday	Smoke Some Days
Overall	15.1%	10.6%	4.5%
18 - 24	7.3%	-	-
25 - 34	23.6%	15.6%	8.0%
35 - 44	18.1%	14.6%	3.5%
45 - 54	16.9%	13.6%	3.3%
55 - 64	16.2%	10.8%	5.4%
65 and Older	9.8%	6.3%	3.5%

Figure 14: Cigarette smoking by age group, Delaware adults

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.

Source: [“2020 Delaware Behavior Risk Factor Surveillance System.” BRFSS Prevalence & Trends Data, Centers for Disease Control and Prevention.](#)

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Delaware School Survey

Trends in Past Month Cigarette Use, 8th and 11th grade, 1999-present (in percentages)

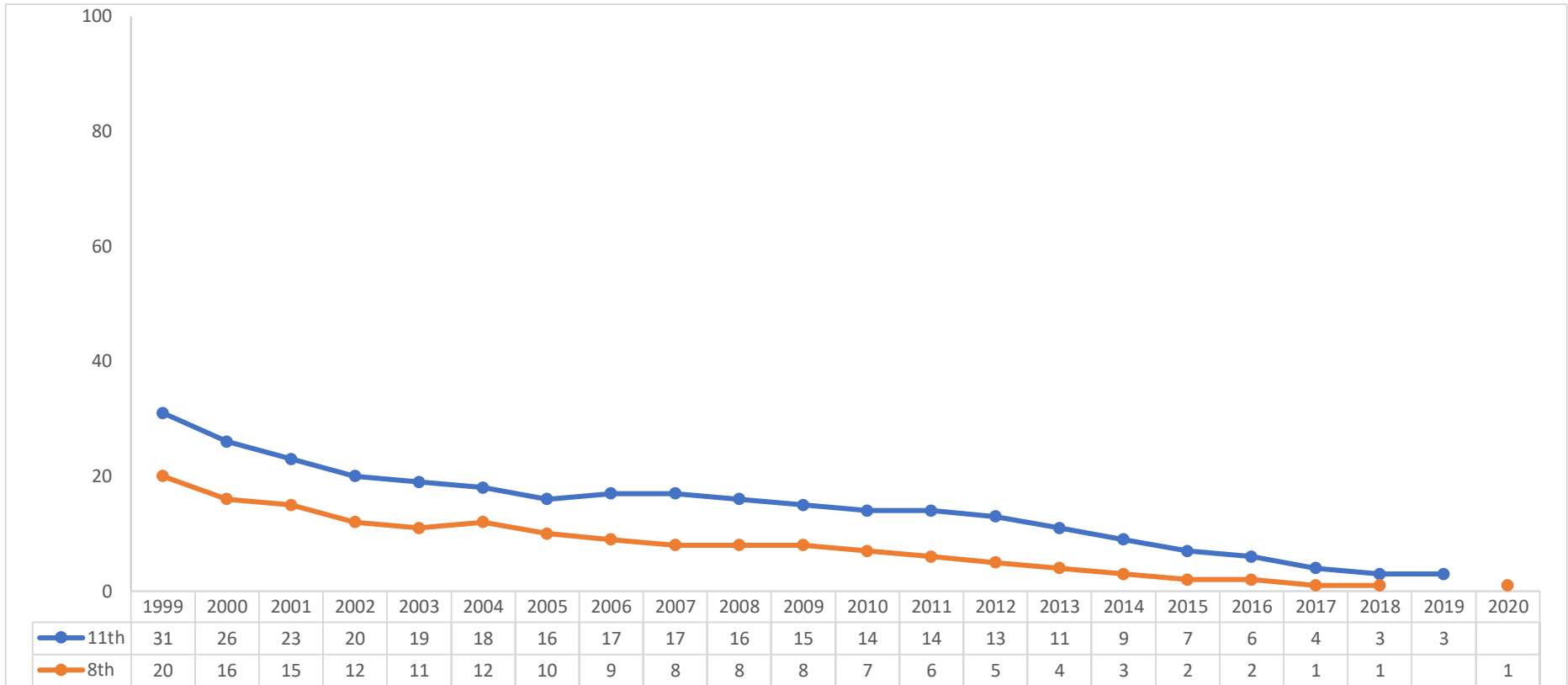


Figure 15: Trends in students' past month cigarette use, 8th and 11th grade

Notes:

In 2019, the number of 8th grade students reporting past month cigarette use was too small to report.

In 2020, 11th grade data was not available for the Delaware School Survey.

In 2021, the number of 8th grade and 11th grade students reporting past month cigarette use were too small (n<30) to report.

Source: [Center for Drug & Health Studies. \(2021\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Delaware School Survey Trends in Vaping among 11th Grade Students (in percentages)

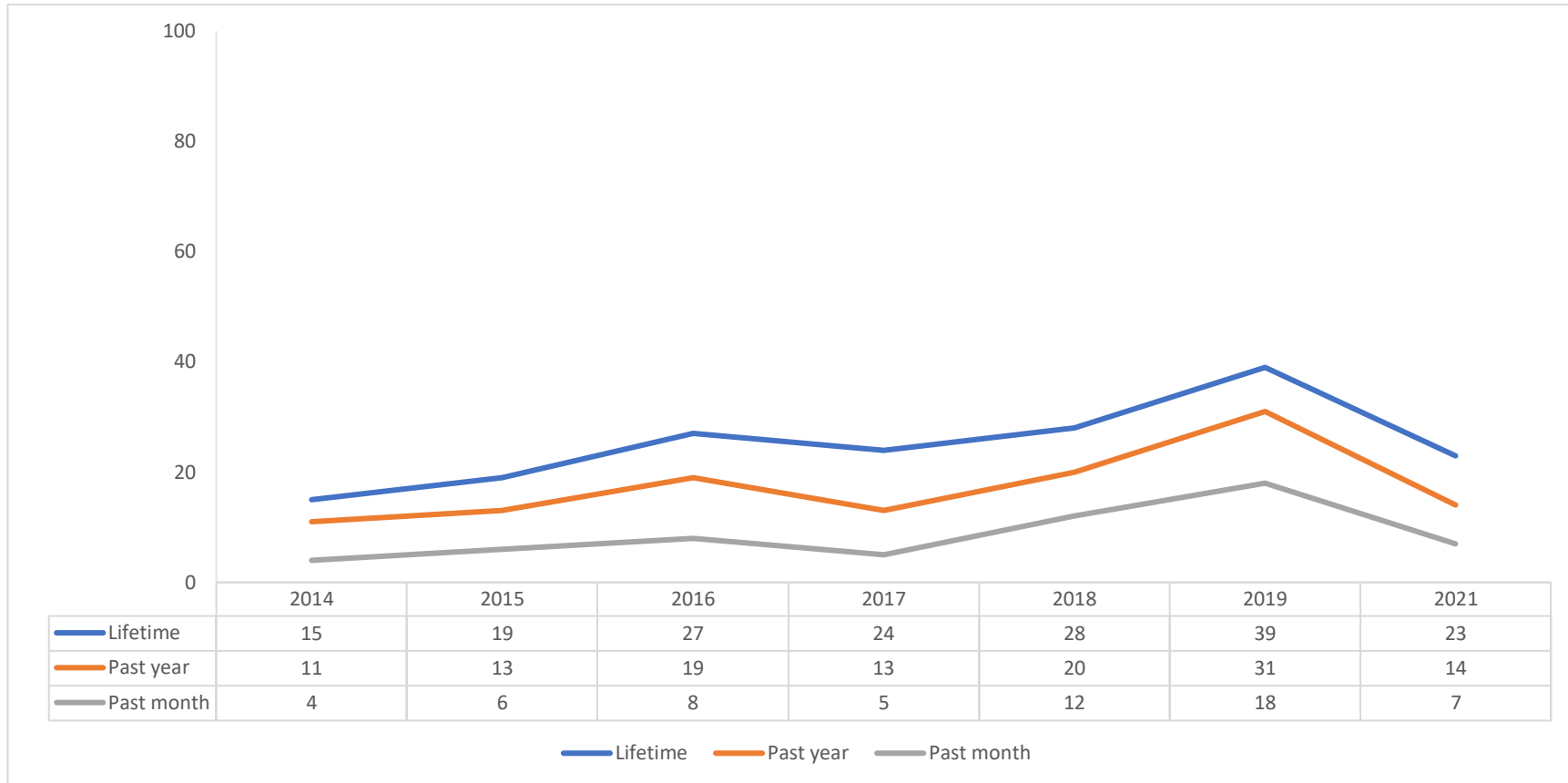


Figure 16: Trends in vaping, 11th grade

Notes:

Vaping includes use of e-cigarettes, Juul, or any other vaping device.

In 2020, 11th grade data was not available for the Delaware School Survey.

Source: [Center for Drug & Health Studies. \(2021\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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National Survey on Drug Use and Health

Past Month Tobacco Product Use by Age Group and Region, 2018-2019 and 2019-2020 (in percentages)

	12 or Older			AGE GROUP								
				12-17			18-25			26 or Older		
	2018-2019	2019-2020	p value ^b	2018-2019	2019-2020	p value ^b	2018-2019	2019-2020	p value ^b	2018-2019	2019-2020	p value ^b
Total U.S.	21.28	19.88	-	4.01	3.10	-	25.08	21.77	-	22.68	21.51	-
Northeast	19.28	18.60	-	3.59	3.06	-	24.53	20.75	-	20.12	19.88	-
Delaware	22.60	20.25	-	4.04	2.76	-	25.59	18.99	-	24.12	22.25	-

Figure 17: Tobacco product use, past month, by age group and region

Past Month Cigarette Use by Age Group and Region, 2018-2019 and 2019-2020 (in percentages)

	12 or Older			AGE GROUP								
				12-17			18-25			26 or Older		
	2018-2019	2019-2020	p value ^b	2018-2019	2019-2020	p value ^b	2018-2019	2019-2020	p value ^b	2018-2019	2019-2020	p value ^b
Total U.S.	16.91	15.81	-	2.50	1.85	-	18.34	15.73	-	18.35	17.42	-
Northeast	15.43	14.55	-	2.14	1.60	-	17.65	15.83	-	16.48	15.70	-
Delaware	17.46	16.12	-	1.93	1.16	-	17.84	14.26	-	19.03	17.92	-

Figure 18: Cigarette use, past month, by age group 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.](#)

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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)

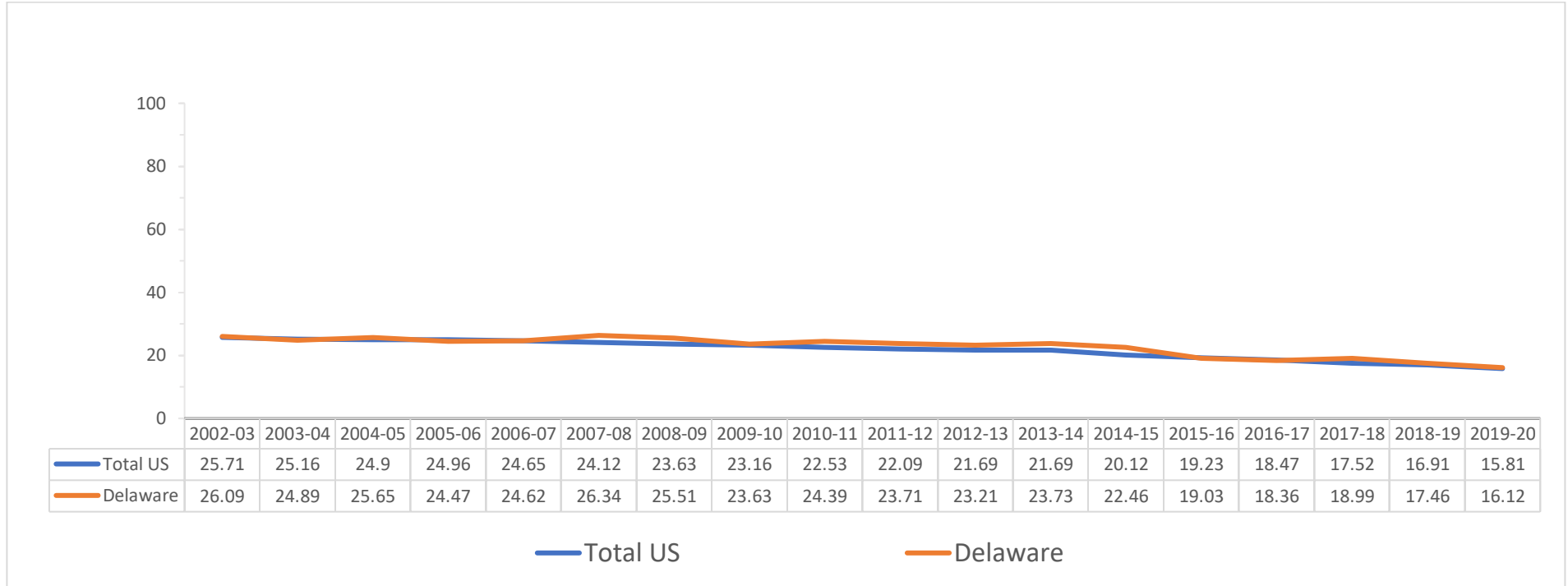


Figure 19: Trends in cigarette use, past month, national & Delaware, ages 12+

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

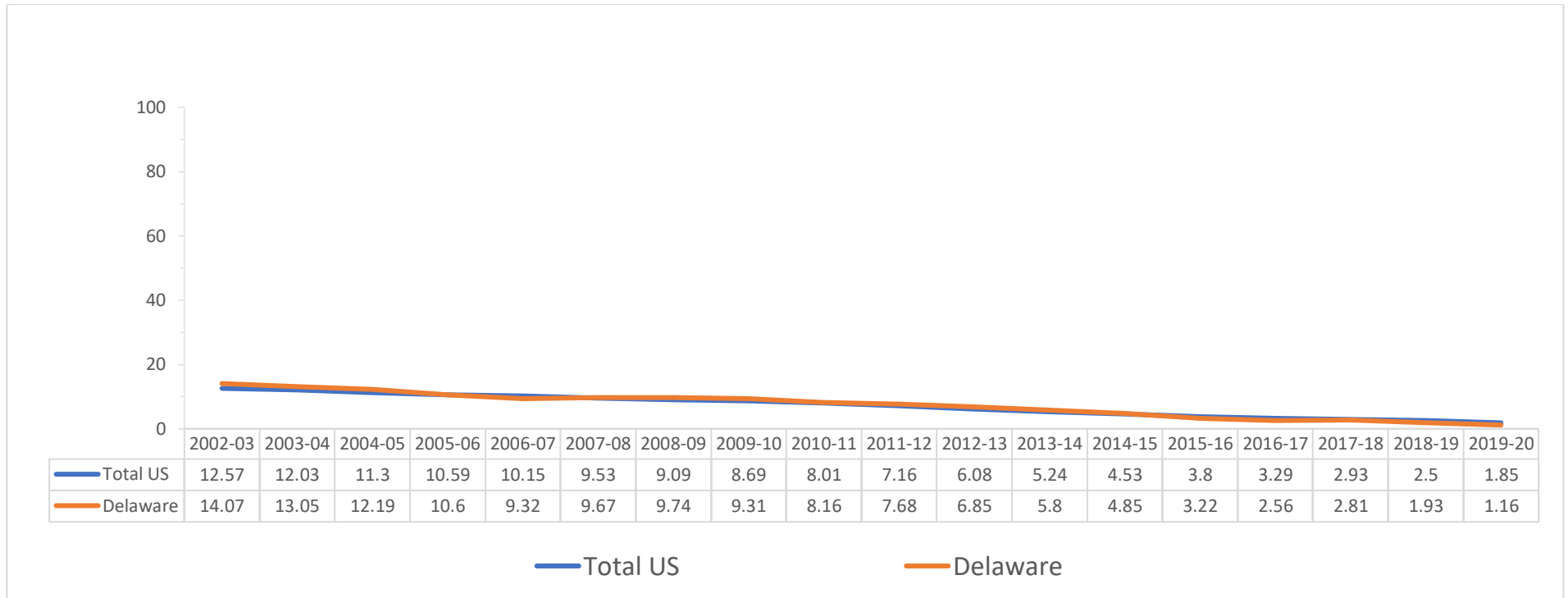


Figure 20: Trends in cigarette use, past month, national & Delaware, ages 12-17

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, 1999-2021

National Trends in Past Month Cigarette Use among 8th, 10th, and 12th Grade Students (in percentages)

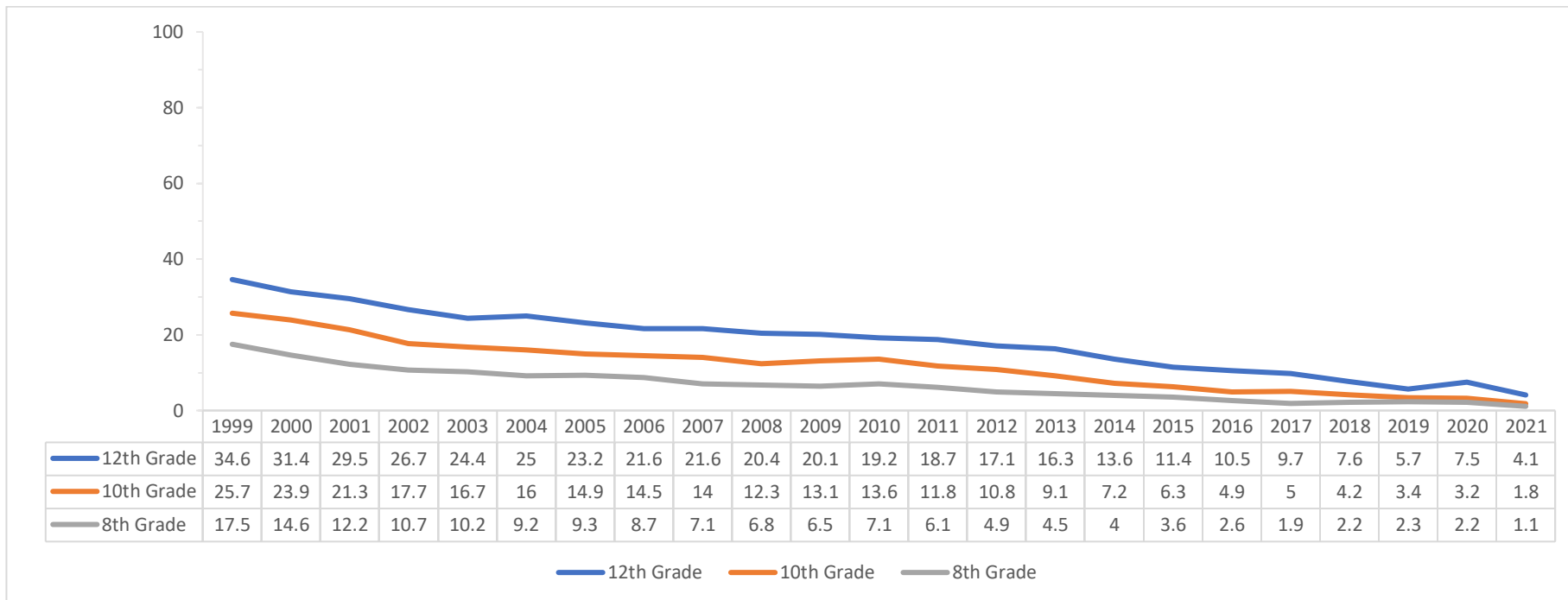


Figure 21: Trends in cigarette use, past month, national, 8th, 10th, and 12th grade

Source: [Monitoring the Future, National Survey Results on Drug Use, 1975-2021. University of Michigan.](#)

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Delaware School Survey, 2002-2021

Students' Perceptions of Great Risks from Smoking a Pack of Cigarettes Daily (in percentages)

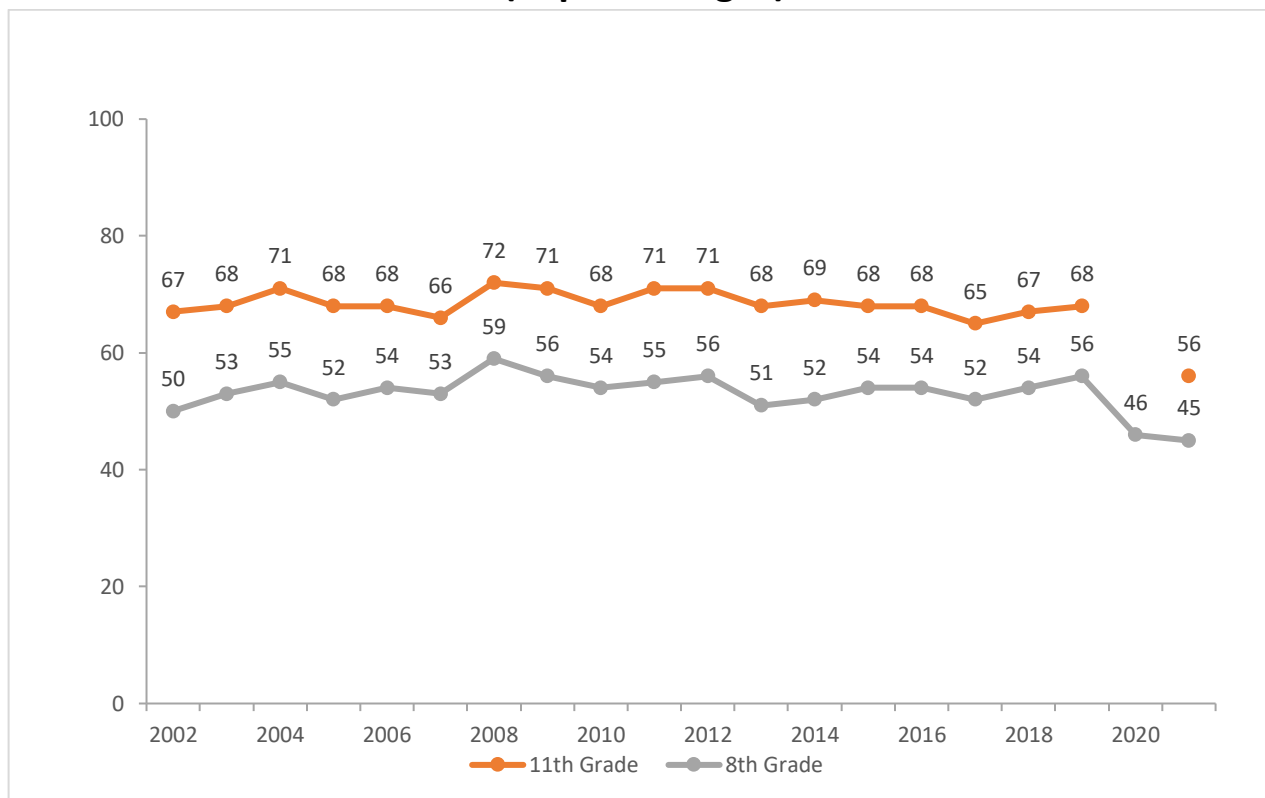


Figure 22: Trends in perceived great risk from smoking pack daily, 8th and 11th grade

Note:

In 2020, 11th grade data was not available for the Delaware School Survey.

Source: [Center for Drug & Health Studies. \(2021\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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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, 2018-2019 and 2019-2020
(in percentages)^a

State	AGE GROUP											
	12 or Older			12-17			18-25			26 or Older		
	2018-2019	2019-2020	p value ^b	2018-2019	2019-2020	p value ^b	2018-2019	2019-2020	p value ^b	2018-2019	2019-2020	p value ^b
Total U.S.	71.52	70.97	-	65.16	66.12	-	66.86	66.36	-	72.98	72.24	-
Northeast	73.98	72.87	-	67.15	67.87	-	69.14	67.42	-	75.43	74.20	-
Delaware	71.81	73.14	-	64.68	65.93	-	67.31	69.09	-	73.19	74.43	-

Figure 23: 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 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.](#)

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Data Sources

Data Instrument	Most Recent Data	Trend Range
Delaware's Annual Traffic Statistical Report	2021	-
Delaware Behavioral Risk Factor Surveillance System (BRFSS)	2020	-
Delaware Division of Forensic Science Annual Report	2021	2019 - 2021
Delaware Online/NewsJournal Gun Violence Database	2022	2017 - 2022
Delaware Prescription Monitoring Program (PMP)	2020	2012- 2020
Delaware School Survey (DSS) – 5 th grade	2021	1999 - 2021
8 th and 11 th grades	2021	1999 - 2021
Delaware Youth Risk Behavior Survey (YRBS) – High School	2017	1999 - 2017
Delaware Youth Risk Behavior Survey (YRBS) – Middle School	2019	1999 - 2019
DOMIP (Delaware Opioid Metric Intelligence Program)	2020	-
Household Pulse Survey	2022	2021 - 2022
Monitoring the Future – 8 th , 10 th , and 12 th grades	2021	1999 - 2021
National Youth Risk Behavior Survey (YRBS) – National	2019	1999 - 2019
National Survey of Children's Health (NSCH)	2020	2016 - 2020

Data Instrument	Most Recent Data	Trend Range
National Survey on Drug Use and Health (NSDUH)	2019-2020	2002 - 2020
Delaware Infants with Prenatal Substance Exposure	2020	2015-2020
Treatment Admissions Data	2019	-

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