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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.

The Delaware Epidemiological Profile is available, along with all SEOW data products, on the [Center for Drug and Health Studies](#) at the University of Delaware website.



SEOW Collaborators

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

atTAcK Addiction
Bellevue Community Center
Christiana Care Health System
Colonial School District
Delaware Academy of Medicine/Delaware Public Health Association
Delaware Afterschool Network
Delaware Center for Justice
Delaware Coalition Against Domestic Violence
Delaware Council on Gambling Problems
Delaware Courts - Office of the Child Advocate
Delaware Criminal Justice Council
Delaware Criminal Justice Information System
Delaware Department of Education
Delaware Department of Services for Children, Youth and their Families
 Division of Prevention and Behavioral Health Services
Delaware Department of Health and Social Services
 Division of Medicaid and Medical Assistance
 Division of Public Health
 Division of Services for Aging and Adults with Physical Disabilities
 Division of Substance Abuse and Mental Health
Delaware Department of Safety and Homeland Security
 Delaware State Police
 Division of Alcohol and Tobacco Enforcement
 Division of Forensic Science
Delaware Department of State
 Delaware Office of Controlled Substances
 Division of Professional Regulation, Prescription Monitoring Program
Delaware Domestic Violence Coordinating Council



Delaware 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

SEOW Facilitator Team at the University of Delaware Center for Drug and Health Studies:

Cheryl Ackerman, Jessica Arnold, Rochelle Brittingham, David Borton, Darryl Chambers, Bill Gratton, James Highberger, Dana Holz, Lin Liu, Steve Martin, Sharon Merriman-Nai, Dan O'Connell, Aila Prieto, Brandie Pugh, Laura Rapp, Rachel Ryding, Meisje Scales, Rachael Schilling, Eileen Sparling, Wenjin Wang

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



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Executive Summary

Introduction

Each year, the Center for Drug and Health Studies at the University of Delaware (CDHS), the facilitator of the State Epidemiological Outcomes Workgroup (SEOW)¹, releases the Delaware State Epidemiological Profile. The report highlights the most recently available data on substance use among various populations in Delaware and nationwide. The 2020 report includes the following chapters:

1. About Delaware: State Demographic Background and a Snapshot of Substance Use
2. Tobacco and Electronic Cigarettes (Vaping)
3. Alcohol
4. Marijuana
5. Opioid Use and Other Trends
6. Other Illegal Drugs
7. Substance-Exposed Infants
8. Gambling
9. Mental Health and Wellness
10. Persons with Disabilities
11. Adverse Childhood Experiences
12. Gender and Sexuality
13. Protective Factors

The Delaware State Epidemiological Profile is a comprehensive and robust document containing a wealth of information originating from primary data collected by the Center for Drug and Health Studies and other state and national resources. The findings from this report can serve as a powerful tool for stakeholders to make informed decisions and to implement policies and interventions that are responsive to the health needs of Delaware's residents. It is intended to help prevention advocates accomplish goals related to needs assessments, strategic planning, and evaluation.

The first chapter provides an overview of demographic and other indicators for Delaware. Subsequent chapters provide data relevant to specific types of substance use, crosscutting issues, and populations who experience disproportionate rates of risk behaviors. This Executive Summary includes a chapter by chapter synopsis of key highlights on each topic, including general rates of substance use captured by various surveys. When observed, associations between

¹ The SEOW project was established with funding under the federal Strategic Prevention Framework initiative on behalf of the Delaware Division of Substance Abuse and Mental Health.

population characteristics and rates of behaviors are reported. However, it is important to note that while there is often a strong statistical association between substance use, risk behaviors, and other measured indicators, this does not necessarily mean that there is a causal relationship between these variables in all instances, and there may be additional unobserved indicators that also influence the outcome.

Chapter Highlights

State Demographic Background: Delaware is the United States' second-smallest state; it has three counties (New Castle, Kent, and Sussex) and an estimated population of just under one million people. The northern part of the state is more densely populated than the two southern counties, which are largely rural. The median age of Delaware residents is slightly older than the national average, and the median household income is slightly higher, as well. Just over two-thirds of Delaware residents are white, nearly a quarter are African American, and almost 10% are Hispanic or Latino/a/x (U.S. Census Bureau, n.d.). Much of Delaware is considered a [Medically Underserved Area](#) (Health Resources and Services Administration [HRSA], n.d.), with the entirety of Kent and Sussex counties fitting this criteria, as well as communities in southern and eastern New Castle County.

Tobacco/Electronic Cigarettes: While tobacco use is still a serious national and local issue that warrants substantial funding for education and prevention programming, data from five major survey sources show that Delaware youth and adults have been reporting a steady decline in cigarette use since the late 1990s. Data from the Delaware School Survey (DSS) indicate that 20 years ago, more than a third of Delaware's 11th graders reported regularly using cigarettes; today, only about 3% of 11th graders report current past-month cigarette usage. However, Delaware youth report a greater use of e-cigarettes and other electronic vaping devices than traditional tobacco products. Findings from the 2019 Delaware Youth Risk Behavior Survey indicate that 43% of high school students have tried vaping at some point in their lifetime, and more than one in four (28%) vape regularly. While the perception may be that these devices are safer alternatives to cigarette smoking and other forms of tobacco use, e-cigarette use can still lead to health complications, including an increased likelihood of using other tobacco products (Office of the Surgeon General, 2016). In 2019, a new health threat emerged, E-cigarette or Vaping Use Associated Lung Disease (EVALI) which, by February 2020, had resulted in nearly 3,000 hospitalizations and 68 deaths nationally, including one in Delaware (Centers for Disease Control and Prevention, 2020; Delaware Department of Health and Social Services, n.d.).

Alcohol: Alcohol misuse is a major concern that presents extensive public health risks and significant social costs. Data from the most recent Delaware School Survey (DSS) and Youth Risk Behavior Surveys (YRBS) illustrate that alcohol remains the most commonly reported substance used by students throughout the state. Driving while intoxicated is a major public health concern associated with alcohol. According to data reported by the Delaware State Police, there were 2,657 driving while under the influence (DUI) arrests in 2019. Nearly two-thirds (65%) of Delaware 8th graders report that they rode in a car with someone who had been drinking, and

14% of 11th graders reported that they had driven a car after drinking at some point in their lifetime (DSS, 2019). More than one in ten 11th graders report drinking and driving at least once in the past year (DSS, 2019). Overall, adults in Delaware tend to report drinking alcohol at rates comparable to national estimates, with approximately 53% reporting past month use (National Survey on Drug Use and Health [NSDUH], 2017-2018). Heavy drinking can also lead to serious health complications, including diseases of the liver and pancreas and various cancers. Binge drinking remains a concern, with 23% of Delawareans aged 12 and older reporting this risk behavior in the previous month (NSDUH, 2017-2018). According to NSDUH, approximately 37% of young adults from age 18-25 report binge drinking within the past month. Sixteen percent of all adults in Delaware responding to the 2018 Behavioral Risk Factor Surveillance System report binge drinking in the past 30 days, and 6% meet the criteria for heavy drinking (consuming 14 drinks a week for men and seven drinks a week for women).

Marijuana: Over the past couple of decades, states have enacted various laws that have changed the legal status of marijuana. Delaware currently permits medical marijuana for certain conditions and has decriminalized the possession of small amounts of marijuana by adults. Lawmakers have proposed legislation to legalize adult recreational marijuana use, although it has not yet passed (Bittle, 2019). Given the shifting legal status of marijuana, the perception of risk of harm from marijuana use has declined among students surveyed by the Delaware School Survey (DSS, 2010-2019) over the past decade, while rates of use among high school students have increased. Fifty-four percent of 12th grade respondents to the 2019 Delaware Youth Risk Behavior Survey (YRBS) report using marijuana at least once in their lifetime, and 39% of high school students overall report such use (YRBS, 2019). Alternate methods of ingesting marijuana have become more popular among youth in Delaware, including vaping, edibles, and marijuana concentrates. The use of marijuana concentrates is particularly concerning because of the high potency of tetrahydrocannabinol (THC) in these products. The 2019 DSS indicates that 6% of 11th graders report using edibles to ingest marijuana, and 12% report vaping it.

Opioid Use and Other Trends: Delaware has been hit hard by the opioid epidemic. The most recently available data from the Centers for Disease Control and Prevention (CDC) estimate Delaware's overdose mortality rate as 43.8 deaths per 100,000 residents, which is substantially higher than the national rate of 20.7 deaths per 100,000 (Hedegaard, Minino, & Warner, 2020). In 2018, 355 of the 401 overdose deaths in Delaware were attributed to opioids (National Institute on Drug Abuse, 2020). Data from the 2017-2018 NSDUH estimate that 4.23% of Delawareans aged 12 and over and 6.9% of adults aged 18-25 have misused prescription pain relievers in the past year. Among Delaware youth, approximately 4% of 8th and 5% of 11th grade students report rates of lifetime misuse of prescription pain medications (2019 Delaware School Survey [DSS]; students of both grades report a past year misuse rate of 3%. The 2019 Youth Risk Behavior Survey (YRBS) indicates slightly higher rates as one in ten high school student reports using prescription pain medications that they were not prescribed or in ways that were not prescribed at least once in their lifetime. Five percent of this sample report such misuse in the previous month. Middle school respondents to the 2019 YRBS report 7% lifetime and 4% past month rates of misuse. Treatment data from the U.S. Department of Health and Human Services indicate that

heroin was the primary drug used in nearly half of all substance use treatment admissions in Delaware in 2019 with an additional 7% attributed to other opiates (Treatment Episode Data Set, 2019).

Other Illicit Drugs: Although the majority of this epidemiological report focuses on the four major substances outlined above (alcohol, tobacco, marijuana, and opiates), these are not the only drugs misused by Delawareans. Illicit drug use also includes cocaine and crack, hallucinogens, inhalants, and the nonmedical use of other prescription drugs. According to the National Survey on Drug Use and Health (NSDUH) 2017-2018 estimates, approximately 3.5% of Delawareans aged 12 and over report using an illicit drug, not including marijuana, in the past month. Three percent of 8th grade students and 5% of 11th grade students report use of an illicit drug (other than marijuana) in the past month (Delaware School Survey [DSS], 2019). The age-adjusted rate of overdose deaths involving cocaine are on the rise in the U.S., tripling from 1.4 per 100,000 people in 2012 to 4.5 per 100,000 in 2018 (Hedegaard, Minino, & Warner, 2020). Fentanyl, which may be mixed with cocaine, increases the risk of overdose and death. Approximately 2.2% of Delaware adults age 12 and older report past year cocaine use, with adults aged 18 to 25 reporting highest rates (6.9%) of use (NSDUH, 2016-2017). Nearly 5% of all drug treatment admissions to publicly funded treatment programs in the state were primarily due to cocaine use last year (Treatment Episode Data Set, 2019). Synthetic cannabinoids, referred to as synthetic marijuana or “fake weed,” are human-made chemicals similar to those found in the marijuana plant. Prevention advocates are concerned about the misperception that these are safer alternatives to marijuana. Six percent of 8th and 12% of 11th grade students report using synthetic marijuana at least once in their lifetime, while 2% of 8th and 4% of 11th graders report past month use (DSS, 2019). Eight percent of 5th grade students report using an inhalant at least once in their lifetime, 3% report a past year use rate, and 1% report inhaling a substance such as glue, sprays, or gasoline in the past month (DSS, 2019).

Substance-Exposed Infants: Infants are a special population that can be uniquely impacted by substance use. Substance-exposed infants (SEI) are babies born after pre-natal exposure to illicit drugs or alcohol. Heavy prenatal substance exposure can lead to conditions such as neonatal abstinence syndrome, fetal alcohol spectrum disorders, or other developmental delays. Prenatal exposure has the potential to create additional health issues during infancy and later in life, especially if the child’s parents or caregivers engage in continued substance use after birth. In 2019, there were 705 cases of substance exposed infant births reported in Delaware. Marijuana is the most prevalent substance identified in single substance exposure; marijuana followed by opioids are most prevalent among cases of two substance exposure; and opioids followed by cocaine are most commonly identified among cases involving polysubstance exposure (three or more substances). Plans of safe care were developed for 661 of these cases in 2019.

Gambling: Gambling has become an area of interest among prevention specialists. Most forms of gambling are legal in Delaware, with three casinos across the state and sports betting recently legalized. While many people can enjoy gambling harmlessly, for others, problem gambling and gambling disorders can present numerous challenges and negative consequences. There is evidence that gambling disorders often co-occur with other mental health and substance use

disorders among adults (Petry, Stinson, & Grant, 2005; Martin, Usdan, Cremeens, Vail-Smith, 2014). Gambling is prevalent among Delaware youth; 51% of all middle school students and approximately 43% of high school students report that they gambled at least once in the past year (Delaware Youth Risk Behavior Survey [YRBS], 2019). Among both middle and high school students, those who report gambling in the past year tend to report using substances at higher rates than their non-gambling peers. Middle school students who report gambling are also twice as likely to report lifetime rates of vaping and drinking alcohol; high school students who report past year gambling are more likely to also report past month rates of smoking, vaping, using alcohol, binge drinking, and using marijuana (YRBS, 2019).

Mental Health and Wellness: According to the Centers for Disease Control and Prevention (CDC), more than half of all people in the U.S. will be diagnosed with a mental illness or disorder at some time; one in five Americans will experience a mental illness each year; one in five child will experience a “serious debilitating mental illness”; and 4% of adults live with a serious mental illness such as major depression or schizophrenia (CDC, n.d). Mental health problems and substance use disorders often co-occur. National Institute on Drug Abuse (NIDA, 2020) research indicates approximately half of individuals who experience a mental disorder will also experience a substance use disorder at some point in their life. Comorbidity may be due to common risk factors for both conditions or one condition may lead to the other. With respect to the overall mental health of Delaware residents, nearly 15% of adults report experiencing any mental illness in the preceding year, and 4.3% report experiencing a serious mental illness (Substance Abuse and Mental Health Services Administration [SAMHSA], n.d.). In 2019, 12.4% of adults in Delaware experienced frequent mental distress (United Health Foundation, n.d.). Approximately 4% of adults throughout the state report seriously considering suicide in the past year (SAMHSA, 2018). From 2014-2018, the suicide rate in Delaware was 12 deaths per 100,000 people (Delaware Department of Health and Social Services, Division of Public Health, 2020). Nearly one in three Delaware high school students report feeling sad or hopeless for most days of a two week or longer period in the past year; 17% percent report they had seriously considered attempting suicide during the past year; 13% report that they had had a plan for suicide; and 8% report that they had actually attempted suicide in the past year (Delaware Youth Risk Behavior Survey, 2019). These data substantiate the need for prevention strategies to foster mental wellness as well as a need for mental health services across all age groups.

Persons with Disabilities: There are definitional variations and other challenges to collecting data regarding the rate of persons with disabilities and their needs. A recent analysis of data from the Behavioral Risk Factor Surveillance System (BRFSS) indicates that approximately one in four noninstitutionalized adults in the U.S. report having a disability. This study suggests that people with disabilities often face significant health disparities in comparison to the general population, including disparate health outcomes and reduced healthcare access (Okoro, Hollis, Cyrus, & Griffin-Blake, 2018). Additional national research indicates that disparities also exist in rates of substance use (Glazier & Kling, 2013) and prescribing of opioids (Hong, Geraci, Turk, Love, McDermott, 2019). Prevalence estimates of persons with disabilities in Delaware range from 12% to 27% (American Community Surveys, 2014-2018; Behavioral Risk Factor Surveillance System

[BRFSS], 2018). BRFSS data (2017-2018) indicates considerably higher rates for smoking status, e-cigarette use, and depression among Delaware adults with disabilities (CDC, [Disability and Health Data System](#), n.d.). The [National Survey of Children's Health](#) (2017-2018) denotes that 29% of children in Delaware have one or more functional difficulty² and 14% have two or more. The Delaware Department of Education (DOE, n.d.) reports that 16.7% of students currently enrolled in public schools have a disability. Youth survey data parallels results of adult surveys regarding rates of risk behaviors among persons with disabilities. Middle and high school respondents to the 2019 Delaware Youth Risk Behavior survey who report having a disability also report higher rates of substance use and poorer mental health outcomes than their peers. At the same time, these students also report lower rates of family connectedness which is a protective factor against risk behaviors.

Adverse Childhood Experiences: The impact of adverse childhood experiences (ACEs) on health and life course outcomes is a crosscutting issue within the prevention field. ACEs are traumatic events or conditions such as abuse, neglect, or parental separation that, when experienced in childhood, can result in toxic stress and may have long-lasting negative impacts on individuals. Furthermore, experiencing one type of trauma increases the risk of experiencing additional traumas, and multiple individual ACEs can have a compounded effect. The National Survey on Children's Health (NSCH) 2016-2018 data indicate that approximately 43% of children in Delaware experience at least one ACE, most commonly divorced/separated parents and economic hardship. According to NSCH data provided by parental respondents, the third most prevalent ACE among Delaware youth is parental incarceration, experienced by one in ten children. Nearly 8% of Delaware youth live in a household with someone who suffers from a mental illness, and the same number live with a household member who has a substance use problem. Approximately one in four Delaware youth experiences one ACE, and almost one in five experience two or more. NSCH data illustrate some groups (African American youth; children whose parents were born outside of the US; children who are poor; and children who have special healthcare needs) experience higher rates of ACEs (Hussaini, 2020). The Delaware Youth Risk Behavior Survey (YRBS) includes a number of questions that address trauma, such as parental incarceration, being bullied, and exposure to various types of violence. 2019 Delaware YRBS findings again illustrate that youth who report experiencing trauma also report higher rates of all substance use, as well as symptoms of depression, including self-harm and suicide attempts. Students who experience multiple ACEs report even greater rates of substance use or mental health concerns.

² Functional difficulty, as defined by the National Survey of Children's Health, requires one of 12 of the following conditions: frequent or chronic respiratory problems (past year); difficulty eating or swallowing (past year); stomach/intestinal problems (past year); repeated or chronic pain, including headaches (past year); difficulty using hands (0-5 years); difficulty with coordination and movement (0-5 years); serious difficulty concentrating, remembering, or making decisions (6-17 years); serious difficulty walking or climbing stairs (6-17 years); difficulty dressing or bathing (6-17 years); difficulty doing errands alone (12-17 years); deafness/hearing problems; and blindness or vision difficulties even when wearing glasses.

Gender and Sexuality: The lesbian, gay, bisexual, and transgender (LGBT)³ population constitutes approximately 4.5% of the adult U.S. population (Williams Institute, 2019). Members of this community have consistently faced discrimination, harassment, and violence at the interpersonal and at the systemic level. Despite making up a substantial portion of the population and ample evidence of discriminatory practices and policies, historically, research on LGBTQ individuals has not been robust nor conducted on a nationally representative scale. Difficulties in data collection are due to limitations of survey instruments, a lack of a mandate to collect this information, the complexities of gender identity and expression, and for other reasons. However, most existing research provides strong evidence for the disadvantages faced by members of the LGBTQ community that is also associated with disproportionate risk for substance use, poor mental health, social and emotional instability, and violent victimization. The 2018 National Survey on Drug Use and Health (NSDUH) shows that substance use among lesbian, gay, and bisexual (also termed sexual minorities) adults is higher than heterosexual adults; for example, while 16.2% of the overall adult population report using marijuana in the past year, the rate more than doubles to 37.6% for sexual minority adults (SAMHSA, 2020). Similar disparities are observed among youth. Approximately 16% of surveyed high school students report that they are either gay, lesbian, bisexual, or unsure of their sexual orientation and close to 3% of students report that they are transgender or unsure of their gender (Delaware Youth Risk Behavior Survey [YRBS], 2019). LGBTQ⁴ youth report significantly higher rates of past month substance use than their peers who identify as heterosexual or straight and are more likely to report poorer mental health indicators. For example, 18% of LGBTQ students compared to 12% of cisgender heterosexual students report binge drinking in the past month. Mental health disparities appear even greater: when comparing rates of self harm (also known as non-suicidal self-injury), planned suicides, and attempted suicides, LGBTQ students report rates more than three times greater than their peers across each of these indicators. It is important to note that differences in these rates are not intrinsically associated with being LGBTQ but rather related to the adversities these individuals frequently face due to their sexual orientation or gender identity.

Protective Factors: While childhood trauma is associated with higher rates of health issues and risk behaviors, positive experiences and conditions can function as protective factors. The final section of this report focuses specifically on the role of protective factors at the individual, family, peer, and community level. Prevention advocates recognize the importance of developing

³ While the acronym LGBT explicitly references lesbian, gay, bisexual, and transgender identities, there are a variety of sexual orientations and gender identities that may be included within this community, such as pansexual, asexual, queer, non-binary, or people who are questioning their sexuality and/or gender.

⁴ The letter “Q” has multiple meanings in this context. It is typically short for queer but can represent those individuals who do not feel fully represented by the adjectives of lesbian, gay, bisexual, or transgender, or those who are questioning or unsure how they identify in terms of sexual orientation, gender identity, or in terms of gender expression. In the data discussion of the Delaware Context section of this narrative, the “Q” also represents students who are questioning. While the LGBTQ acronym (or LGBT depending on the wording of the referenced data source) is used in this text, it is important to acknowledge that this is an imperfect and non-exhaustive identifier, and many sources may use variations of this acronym to refer to the community. The [Trevor Support Center](#) and [GLSEN](#) offer terminology resources on this topic.

programming that seek to enhance protective factors while also addressing risk factors. The National Survey on Children’s Health (NSCH) includes a number of protective factor indicators, including a series of four questions that comprise a Family Resilience Composite Measure. The questions ask parent respondents to report if the child lives in a home where family members: talk together about what to do; work together to solve problems; know that they have strengths to draw upon; and stay hopeful even in difficult times. Approximately four out of five parent respondents of children living in Delaware agree with all of these statements most or all of the time, commensurate with the rate among the national sample. Nearly 44% of families report eating a meal together most days, and more than one in three report reading aloud to children aged 0-5 every day (NSCH, 2017-2018). Delaware School Survey (DSS, 2019) data indicates that more than 84% of 5th, 8th, and 11th grade students report feeling encouragement and support from their parents, and more than two-thirds report feeling encouragement and support from their peers. Data from the Youth Risk Behavior Survey (YRBS, 2019) indicate that middle and high school students who report the following characteristics—good grades in school, feelings of support and connectedness at school, consistent discipline and structure at home, engaged parents, and a peer group that believes substance use is wrong—also reported lower consumption of substances as well as better mental health outcomes. Prevention programming in schools and communities may be more successful if it focuses on bolstering these types of protective factors.

COVID-19 in Delaware

Delaware, along with the rest of the country, is undergoing enormous health and economic challenges related to the ongoing public health crisis of the COVID-19 pandemic. The pandemic resulted in a statewide stay-at-home order that began in March 2020. Although Delaware is reopening gradually and indicators previously suggested that we had “flattened the curve” of infections and related deaths, all aspects of daily life have been affected by this, from healthcare service delivery to education, from business and industry to travel and entertainment. As of October 2, 2020, the Delaware Health Tracker data dashboard reports a statewide daily average incidence rate of COVID-19 at [16.7 cases per 100,000](#) residents, and a daily average case-fatality rate of [1.9 deaths per 100 cases](#).⁵ Nationally, evidence is emerging to suggest that rates of mental health issues and substance use are on the rise as people face uncertainty over health and financial security and experience isolation due to social distancing measures (Czeisler et al., 2020). Persons of color have been disproportionately impacted by the pandemic. As readers review the data in this and future annual Delaware epidemiological profiles, it will be important to consider the COVID-19 crisis as part of the overall context.

⁵ According to the notations on the Delaware Health Tracker dashboard, these indicators show the population-adjusted confirmed daily average new COVID-19 cases recorded in the preceding seven days, and the daily average confirmed deaths due to COVID-19 calculated from the daily average confirmed cases recorded in the preceding seven days.

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.
 - **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:

<i>Survey Administration</i>	<i># of Respondents</i>
<i>DSS</i>	
<i>5th Grade</i>	2,992
<i>8th Grade</i>	2,126
<i>11th Grade</i>	2,299
<i>Delaware YRBS</i>	
<i>Middle School</i>	1,162
<i>High School</i>	2,186

1. About Delaware: State Demographic Background and a Snapshot of Substance Use

State Overview

Delaware is the second smallest state in the United States, with total landmass of 1,949 square miles (U.S. Census Bureau, n.d.). There are three counties: New Castle, the most populated, and Sussex and Kent counties, which are primarily rural. The [U.S. Census Bureau QuickFacts](#) reports the state population at 973,764 residents as of July 2019. Approximately one in five residents (20.9%) are under the age of 18, with a similar percentage (19.4%) age 65 and older. The demographic snapshot for this period indicates that approximately 69.2% of the state population reports their race as White, 23.2% as Black or African American, 4.1% as Asian, 2.7% as two or more races, and the remaining population identifies as Pacific Islander/Native Hawaiian, American Indian/Alaska Native, or Other. Almost one in ten Delawareans (9.6%) report their ethnicity as Hispanic or Latino/a/x, and 13% report speaking a language other than English at home (U.S. Census Bureau, n.d.).

Based on the 2014-2018 American Community Survey estimates, median household income in Delaware is \$65,627 with 12.5% of residents living in poverty (U.S. Census Bureau, n.d.). The Delaware Health Tracker (2020) reports that 93.2% of state residents have some form of health insurance. In November 2019, 60,761 Delaware families received assistance from the Supplemental Nutrition Assistance Program (SNAP) (KIDS COUNT in Delaware, Annie E. Casey Foundation, 2020). According to the U.S. Bureau of Labor Statistics, in July 2020, the seasonally adjusted unemployment rate was 10.5%. It should be noted that in March 2020, Delaware along with most of the U.S. experienced an unprecedented “shutdown” due to the COVID-19 pandemic and this unemployment rate reflects a dramatic increase from the pre-pandemic levels.

Due to unique tax and corporate policies and access to the Delaware Court of Chancery, Delaware has attracted more than half of all U.S. publicly traded companies to incorporate in the state. For this reason, Delaware is often named the “corporate capital of the world.” Two of Delaware’s major industries are corporate financing and banking. Delaware’s economy is also driven by chemical manufacturing, aviation, health services, tourism, and agriculture. In Kent and Sussex counties, agriculture has greater predominance. The state’s largest agricultural output is broiler chickens, followed by soybeans and corn. Many thousands of people from across the country visit Delaware’s beach resort towns every year, making tourism a great driver of economic development in Sussex County (Division of Small Business Development and Tourism, n.d.). However, both of these industries have been affected by the COVID-19 pandemic.

New Castle County Overview

The northernmost and most densely populated county, New Castle, has an estimated population of 558,753 (U.S. Census Bureau, n.d.) Delaware's largest city, Wilmington, is located in the county, with an estimated 70,166 people living in the city as of July 2019 (U.S. Census Bureau, n.d.). There is an upsurge in the number of people in the downtown business district during the day, with much of that population leaving the city for homes in the suburban outlying areas at night. Recent residential and business developments along the waterfront in the city were designed, in part, to attract more working professionals to the city to live, dine, and find entertainment. Efforts to motivate locals to dine and entertain in the city are hampered by concerns over high crime rates, and more recently by the COVID-19 pandemic. In 2014, *Newsweek* featured an article on the troubling homicide rate within the city, which was nicknamed [Murder Town USA](#) (Jones, 2014). Attention to increasing homicide rates led local residents and policymakers to call gun violence a public health epidemic, and epidemiologists from the CDC treated it as such and spent several months in 2015 identifying risk factors that led to gun violence within the city (Sumner et al., 2015). One in four Wilmington resident experiences poverty, which is double the rate of the state's overall population (U.S. Census Bureau, n.d.)

Newark, the state's third largest city, with an estimated 33,515 people in 2019, is also located in New Castle County (U.S. Census Bureau, n.d.). Delaware's flagship university, the University of Delaware, is located in Newark. Towns in lower New Castle County have seen explosive growth in the past two decades. Between the 2000 and 2010 census reporting periods, Middletown grew by 206%, and Townsend by 492%.

Kent County Overview

An estimated 180,786 residents live in Kent County. Dover, the state's capital and second largest city, is located in Kent County and with a currently estimated population of 38,166 (U.S. Census Bureau, n.d.). The city is home to the Dover Air Force Base and the Dover Downs International Speedway. Delaware State University and Wesley College are based in Dover, and Delaware Technical Community College and Wilmington University also have locations in the city. Recent residential developments have attracted more people to Kent County. Two towns saw large increases in population from 2000-2010: Cheswold increased by 341% during this time period and Clayton by 129%. Kent County had an overall 28% increase in population between 2000-2010.

Sussex County Overview

Sussex County, the southernmost county, is home to several beach resort towns that support a large influx of people during the warmer months but do not host a large year-round population. As of July 2019, the population of Sussex County is an estimated 234,225 residents. During the tourist season, tremendous congestion and traffic are evident in these coastal towns. Milford, Georgetown, and Seaford are the three largest cities in the county, all of which are inland from the coast and have primarily year-round populations. Poultry processing is a major industry in Sussex County, and a significant immigrant and migrant worker population is associated with the industry. From 2000-2010, Sussex County experienced a 26% increase in its population. These

official numbers may still reflect an undercount of total population growth, as migrant and immigrant workers are often uncouncted on the U.S. Census.

Medically Underserved Areas

The Health Resources and Services Administration (HRSA) uses existing data to determine areas of the country that are medically underserved and lack access to primary care doctors. Occasionally, areas do not fit official criteria for being medically underserved, but local stakeholders, aware of local context and realities, can petition to designate the area as medically underserved if additional data show that the population has difficulty in accessing primary care. In Delaware, much of the southern and eastern communities in New Castle County are currently considered a Medically Underserved Area (MUA) under the Governor’s Exception Criteria, with several census tracts within the city of Wilmington considered an MUA using the HRSA coding criteria. All of Kent County is considered an MUA under the Governor’s Exception Criteria. Sussex County is considered an MUA under the HRSA coding criteria (Health Resource and Services Administration, n.d.).

According to America’s Health Rankings, in 2019, 12.4% of all adults in Delaware experienced frequent mental distress. (United Health Foundation [UHF], n.d.). Coupled with under-resourced service areas, this amplifies the need for preventive health services, including strategies to bolster behavioral health. (For an interactive map of areas of need within the state, visit the [Delaware Health Tracker 2020 SocioNeeds Index.](#))

Snapshot: Substance Use in Delaware

The following figures have been updated to provide an overview of substance use in Delaware. Rates of use among specific substances are detailed in subsequent chapters throughout the annual profile.

What's New in the 2020 Edition?

- Vaping is an increasing public health concern particularly among youth. The State Epidemiological Outcomes Workgroup (SEOW) has produced new heat maps that depict ***past month vaping rates among Delaware 8th and 11th graders.***
- The SEOW also continues to examine shared risk and protective factors in order to support integrated and comprehensive prevention efforts. The 2017 Shared Risk Factor Venn Diagram illustrates the overlap of substance use, sexual risk behaviors, and mental health issues experienced by Delaware high school students. Nearly two-thirds of surveyed students reported the presence of at least one of these risk factors, and ***more than one in ten (12%)*** reported experiencing all three.

2019 Delaware School Survey

Reported Use of Selected Substances in the Past Year among Delaware 8th and 11th Grade Students (in percentages)

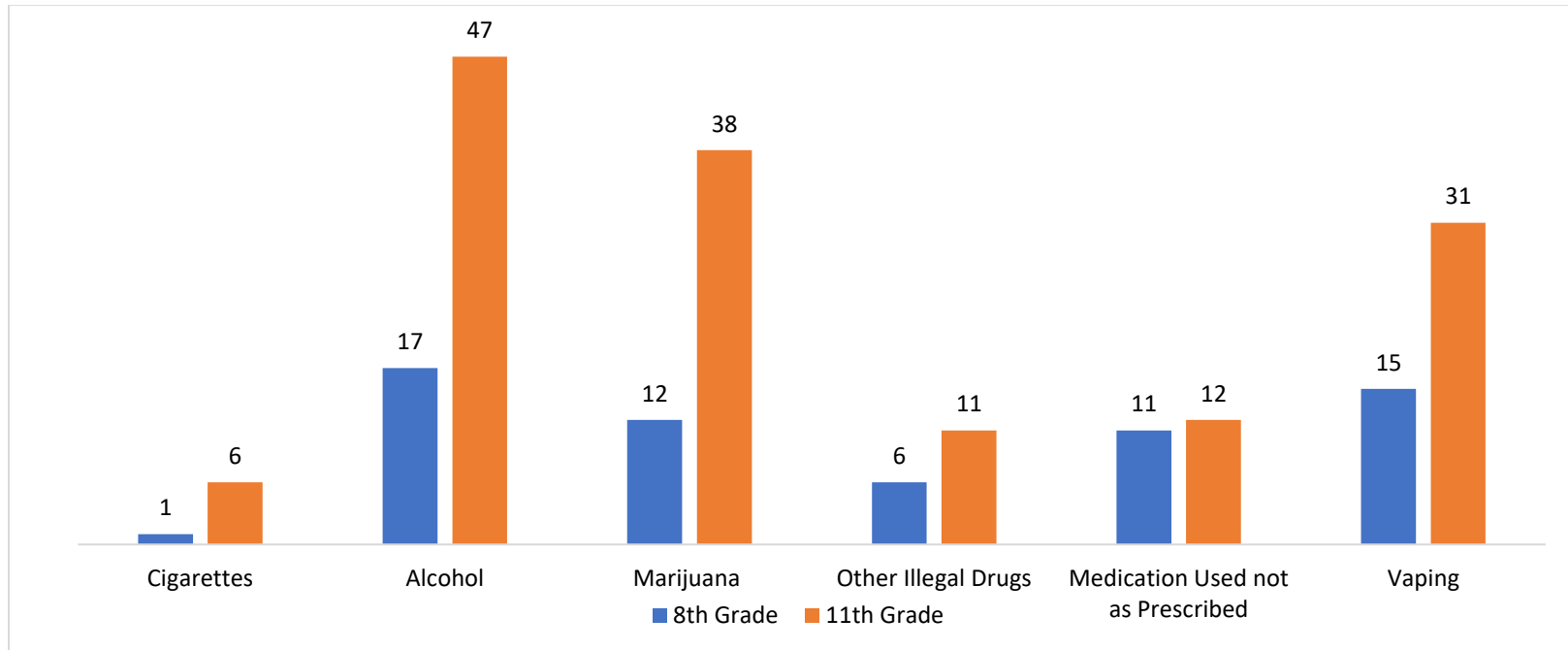


Figure 1: Selected substance use, past year, 8th and 11th grade

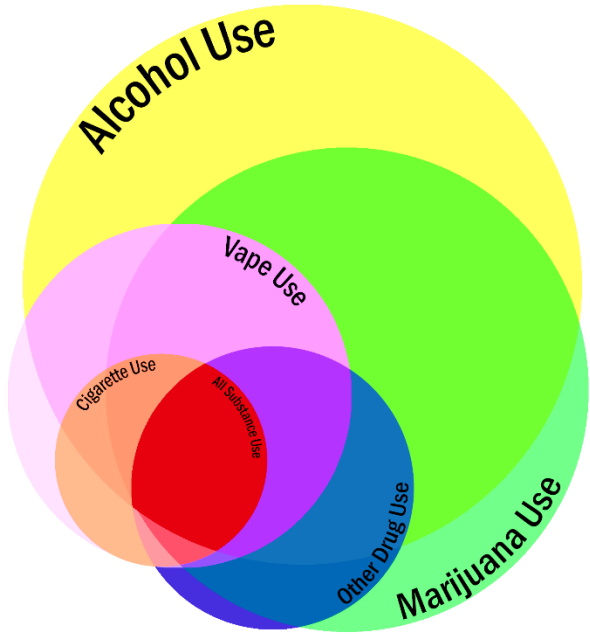
Notes: Medication used not as prescribed includes steroids, over-the-counter medication, prescription uppers (diet pills, Ritalin, Concerta, Adderall), downers (Xanax and other benzodiazepines), and painkillers.

Other illegal drugs include ecstasy, hallucinogens, street uppers, inhalants, cocaine, crack, heroin, and synthetic marijuana used to get high.

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware](#)

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2018 Delaware School Survey Reported Polysubstance Use in the Past Year among Delaware 11th Grade Students



This Venn diagram illustrates the prevalence of past-year polysubstance use among 11th grade students in Delaware. Each circle has been scaled relative to the number of students who report using that substance in the past year, and the areas where circles overlap are accurate to the proportion of students who reported using multiple substances. Overall, 55% of students report using at least one substance in the past year, meaning that 45% of students did not report past-year substance use.

As in previous years, alcohol remains the most commonly used substance, with marijuana as the second most used substance. Most students who reported using a different substance were also using alcohol or marijuana, if not both. Also of note, every student who reported smoking cigarettes also reported the use of an e-cigarette or vaping device. Two percent of students reported using substances from all five categories of drugs here.

Substance	% Reporting Past-Year Use
Alcohol	45%
Marijuana	34%
E-cigarette/Vape	17%
Cigarettes	7%
At least one other drug	12%
All of the above categories	2%

Figure 2: Polysubstance use, past year, 11th graders

Note: This includes ecstasy, hallucinogens, steroids, over-the-counter drugs, amphetamines, crack, cocaine, heroin, synthetic marijuana, and/or any prescription medication used in ways other than prescribed.

Source: [Center for Drug & Health Studies. \(2018\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2017 Delaware Youth Risk Behavior Survey – Shared Risk Factors Venn Diagram

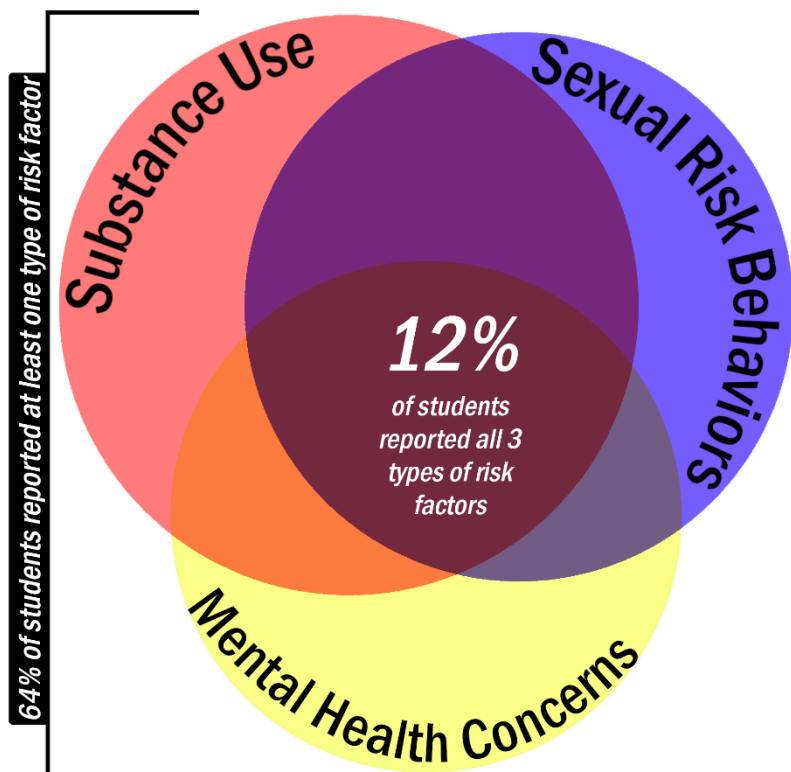


Figure 3: Shared risk factors among high school students

This Venn Diagram uses 2017 high school Youth Risk Behavior Survey data to illustrate shared risk factors among students in Delaware. Each circle has been scaled relative to the number of people who reported that risk factor, and the areas where circles overlap are accurate to the proportion of students who reported at least one of each type of risk factor.

Substance use⁶ is the most common type of risk factor, followed by sexual risk factors⁷, then mental health concerns⁸. More than one in three students reported two or more of these types of risk factors. Of note, more than one in ten (12%) students reported all three types of risk factors.

At least 1 risk factor	64%
Used at least one substance, past month	41%
At least one mental health concern, past year	32%
At least one sexual risk behavior, lifetime	37%
At least two types of risk factors	35%
Reported all three types of risk factors	12%

⁶ Substance use is defined as the student reporting that they used at least one of the following in the past month: alcohol, marijuana, cigarettes, or e-cigarettes.

⁷ Sexual Risk Behavior is defined as the student reporting at least one of the following: having had sex under the age of 16; having had three or more sexual partners, or not having used a birth control method the last time they had intercourse.

⁸ Mental Health Concern is defined as the student reporting at least one of the following in the past year: that they have felt sad or hopeless most days for two or more weeks, or experienced suicidal ideation.

Source: [Center for Drug & Health Studies. \(2017\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware School Survey

Reported Use of Selected Substances in the Past 30 Days among Delaware 8th and 11th Grade Students (in percentages)

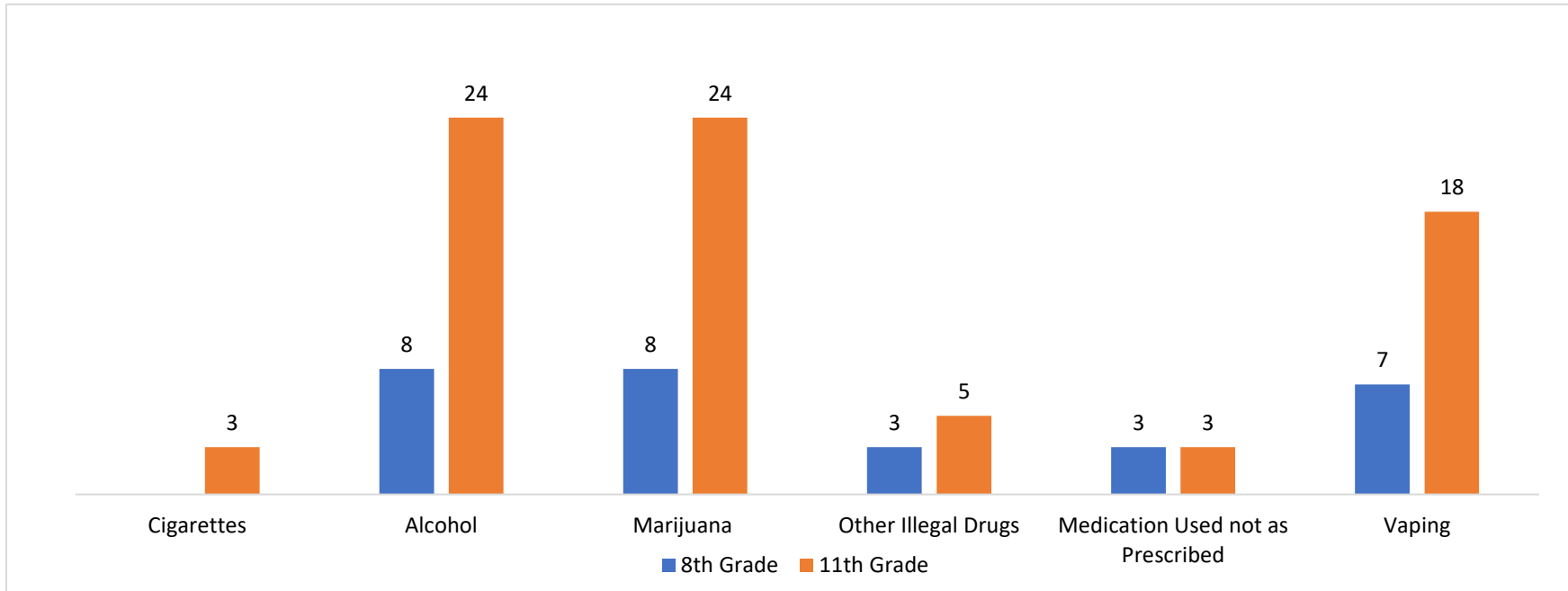


Figure 4: Selected substances used in past 30 days, 8th and 11th grade

Note: Past month cigarette use among 8th grade students is too small (n<30) to report here.

“Medication used not as prescribed” includes steroids, over-the-counter medication, prescription uppers (diet pills, Ritalin, Concerta, Adderall), downers (Xanax and other benzodiazepines), and painkillers.

“Other illegal drugs” include ecstasy, hallucinogens, street uppers, inhalants, cocaine, crack, heroin, and synthetic marijuana used to get high.

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Reported Past Month Cigarette Use Among Delaware 8th Grade Public School Students: 2018-2019

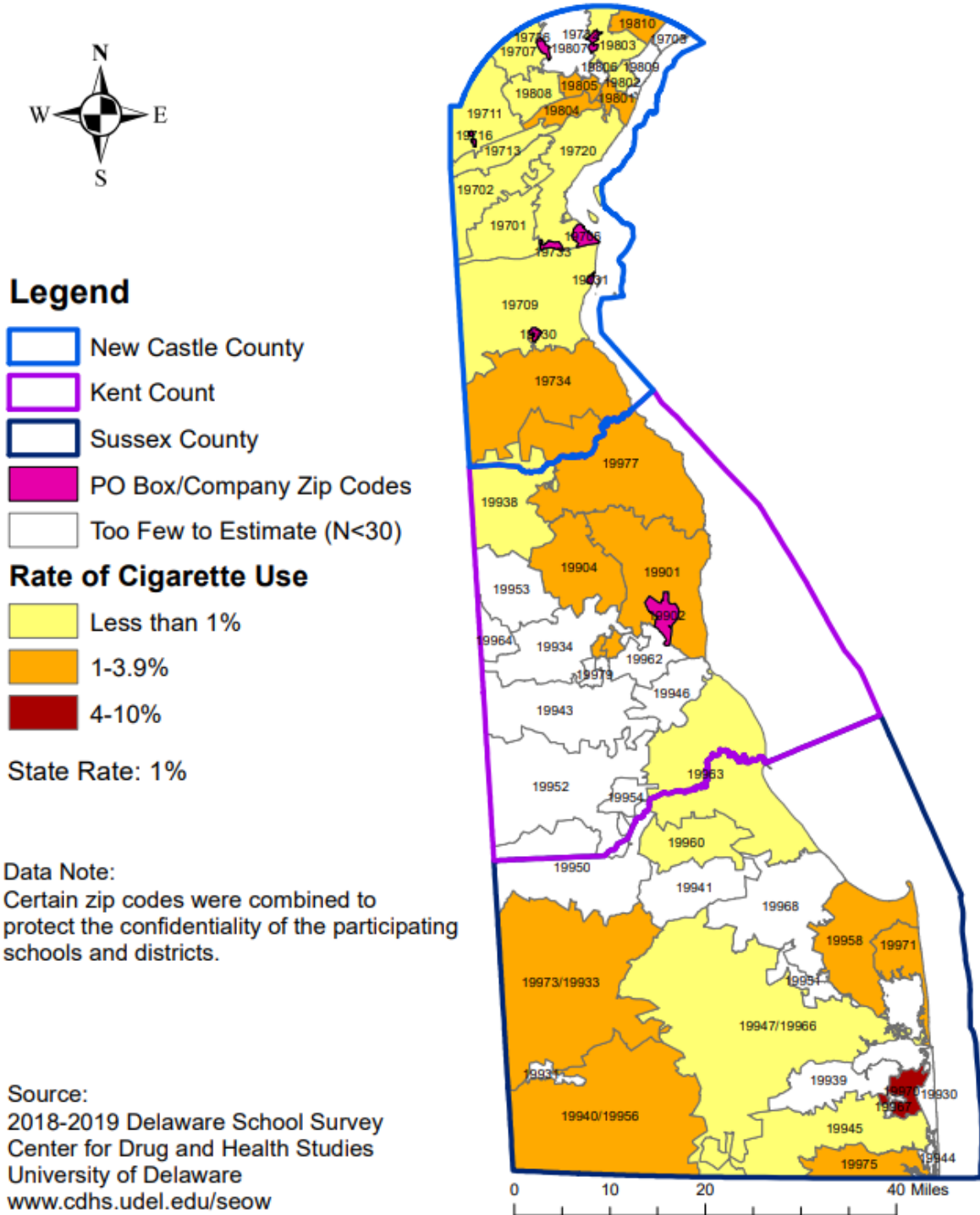


Figure 5: Map of past month cigarette use, 8th grade

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Reported Past Month Cigarette Use Among Delaware 11th Grade Public School Students: 2018-2019

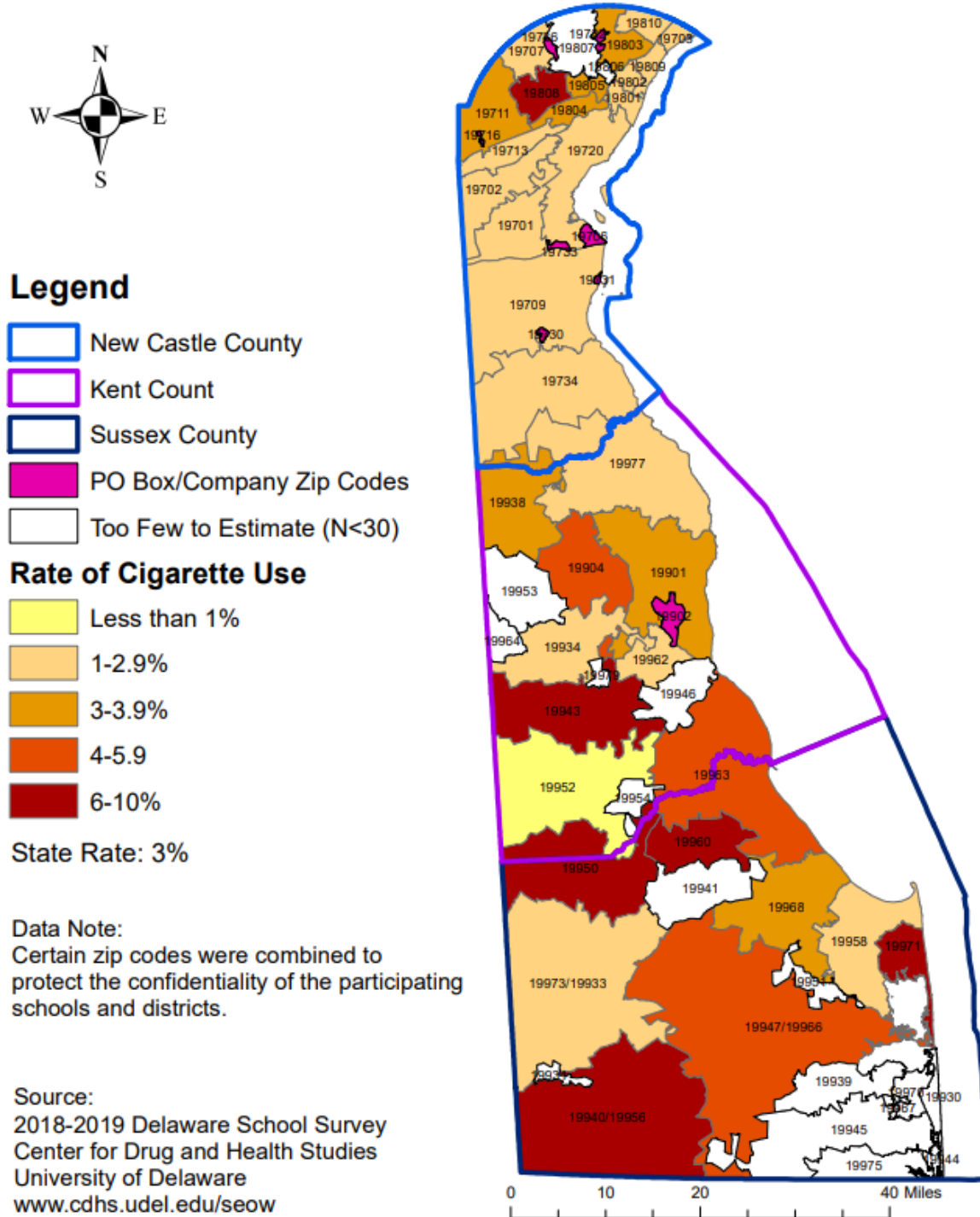


Figure 6: Map of past month cigarette use, 11th grade

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Reported Past Month Alcohol Use Among Delaware 8th Grade Public School Students: 2018-2019

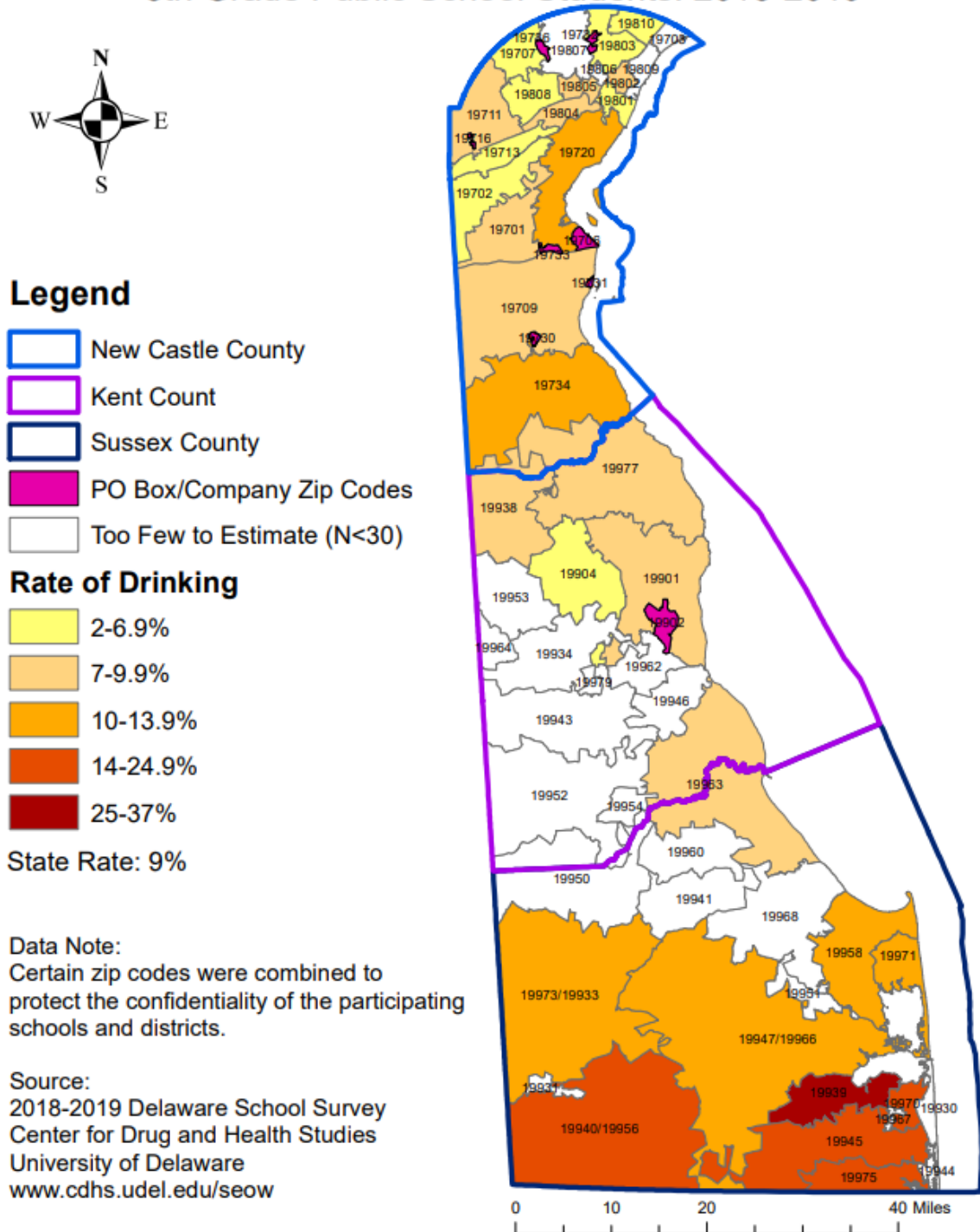


Figure 7: Map of past month alcohol use, 8th grade

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Reported Past Month Alcohol Use Among Delaware 11th Grade Public School Students: 2018-2019

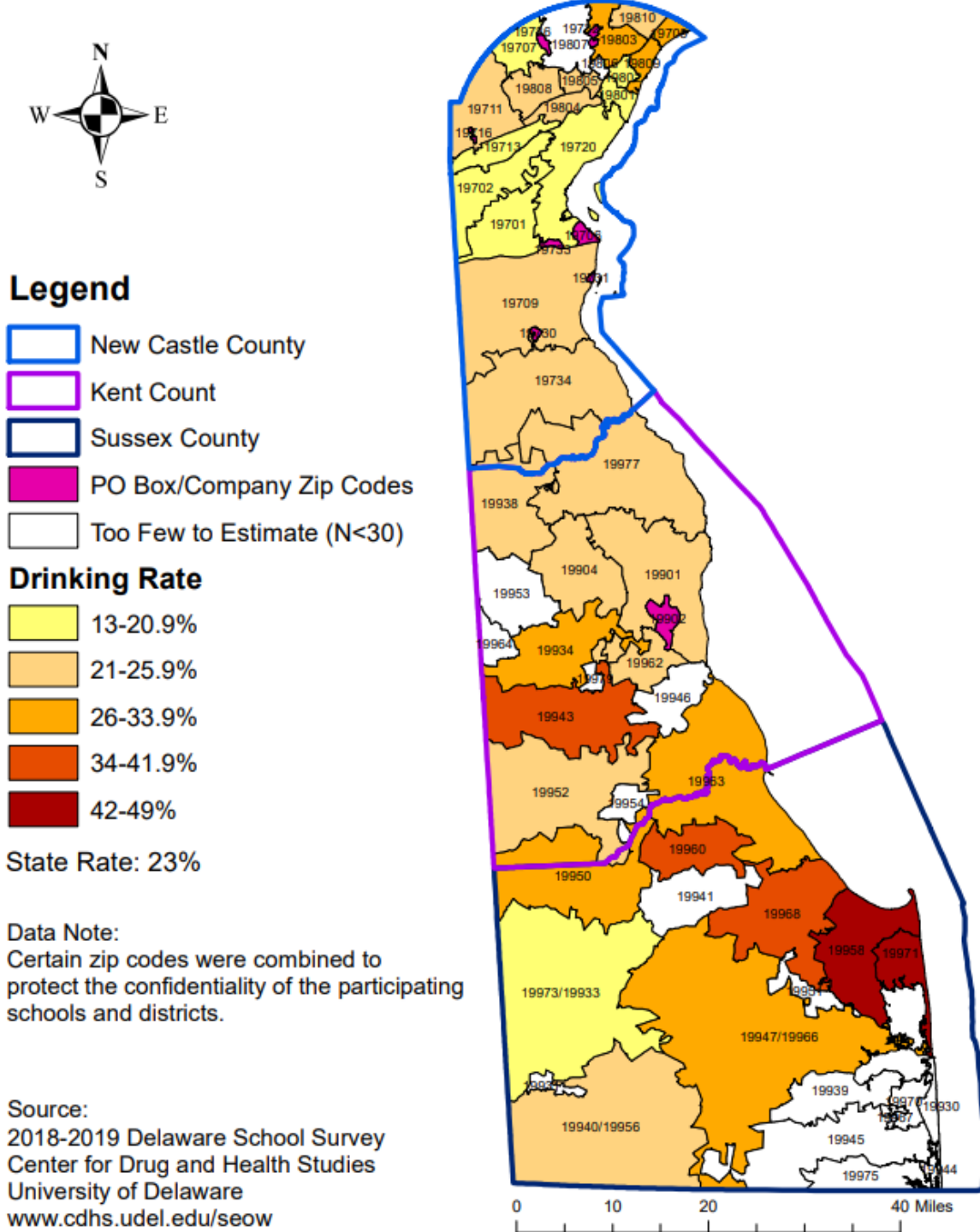


Figure 8: Map of past month alcohol use, 11th grade

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Reported Past Two Week Binge Drinking* Among Delaware 8th Grade Public School Students: 2018-2019

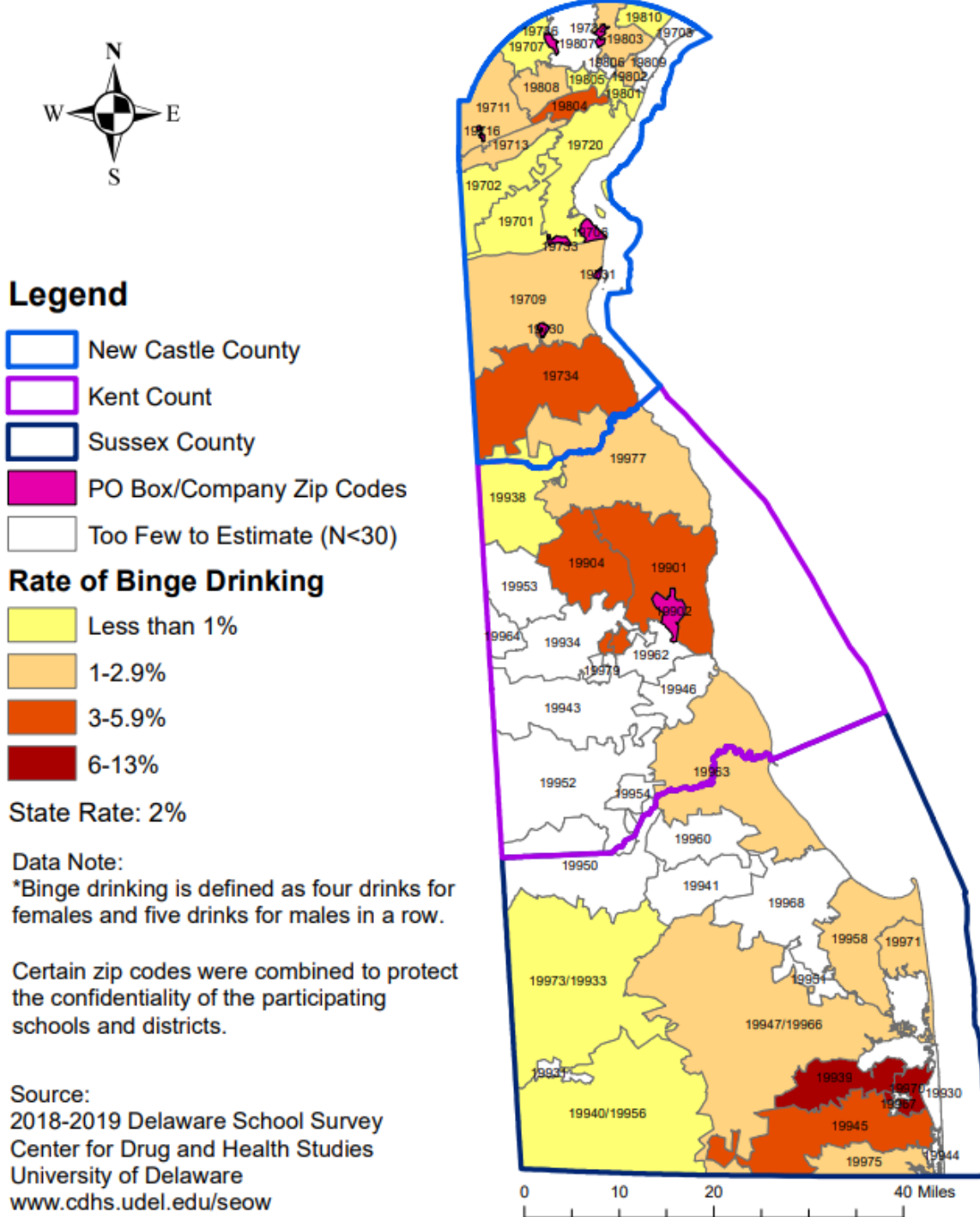


Figure 9: Map of binge drinking, 8th grade

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Reported Past Two Week Binge Drinking Among Delaware 11th Grade Public School Students: 2018-2019

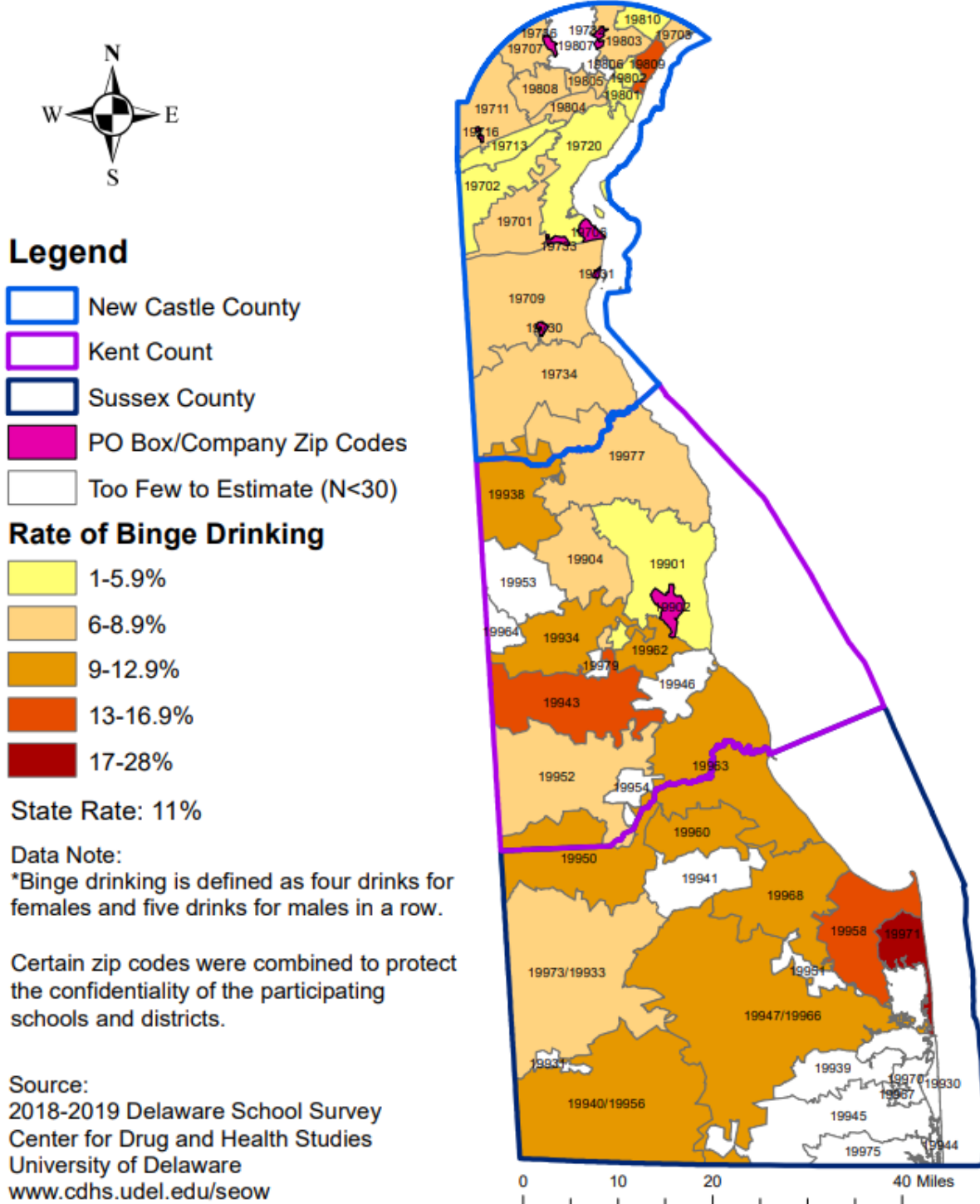


Figure 10: Map of binge drinking, 11th grade

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Reported Past Month Marijuana Use Among Delaware 8th Grade Public School Students: 2018-2019

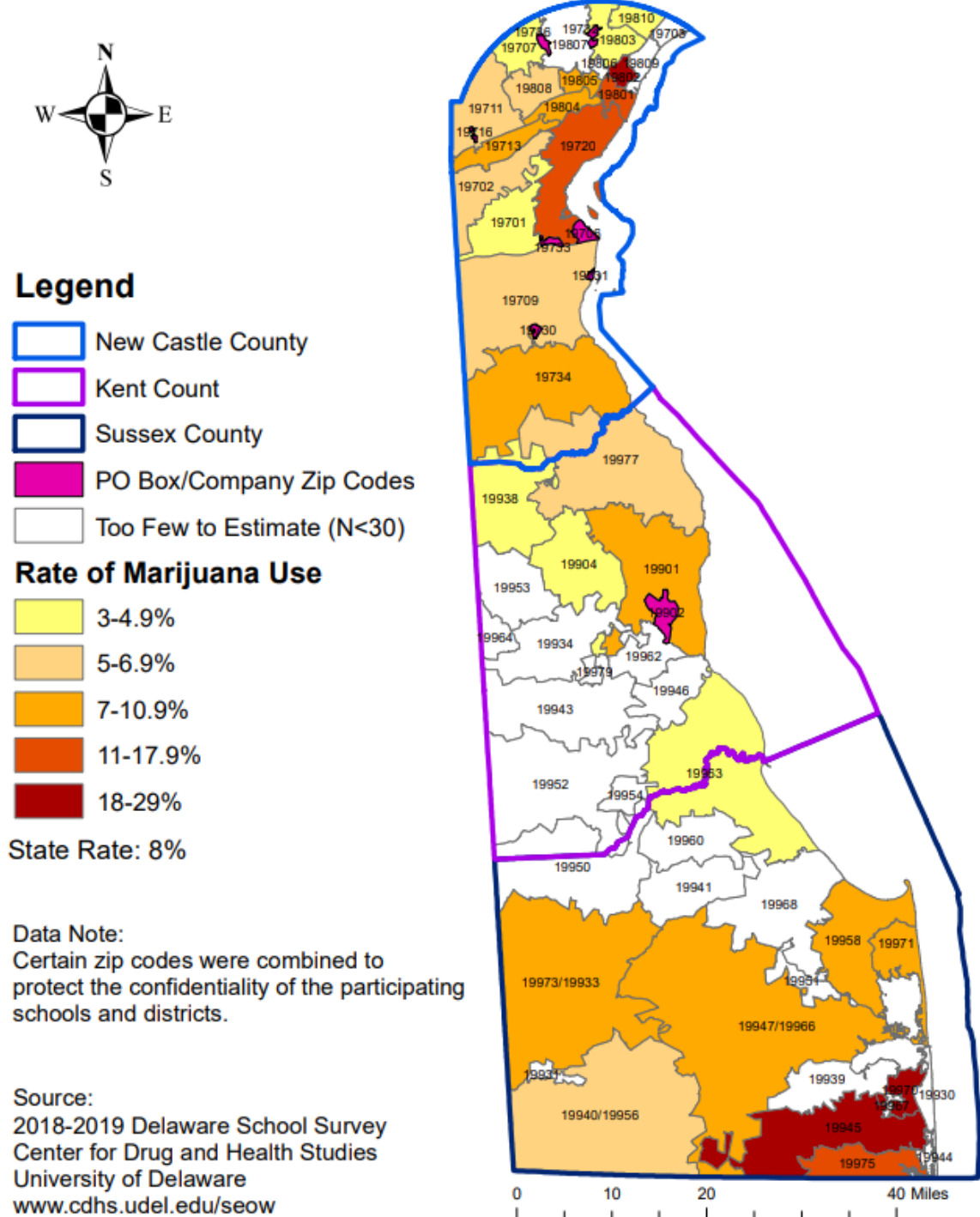


Figure 11: Map of past month marijuana use, 8th grade

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Reported Past Month Marijuana Use Among Delaware 11th Grade Public School Students: 2018-2019

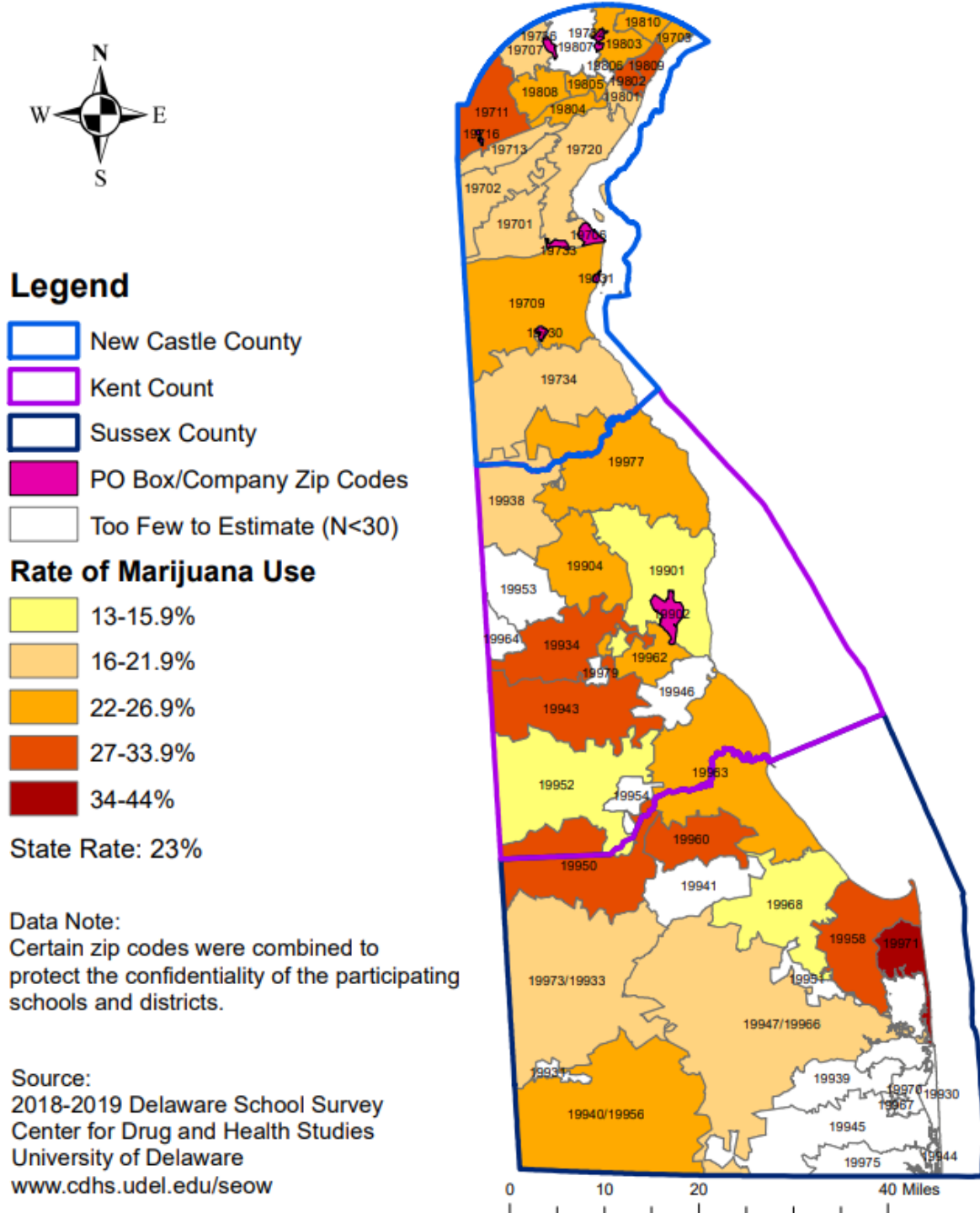


Figure 12: Map of past month marijuana use, 11th grade

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Reported Past Year Prescription Painkiller Use Without a Prescription Among Delaware 8th Grade Public School Students: 2018-2019

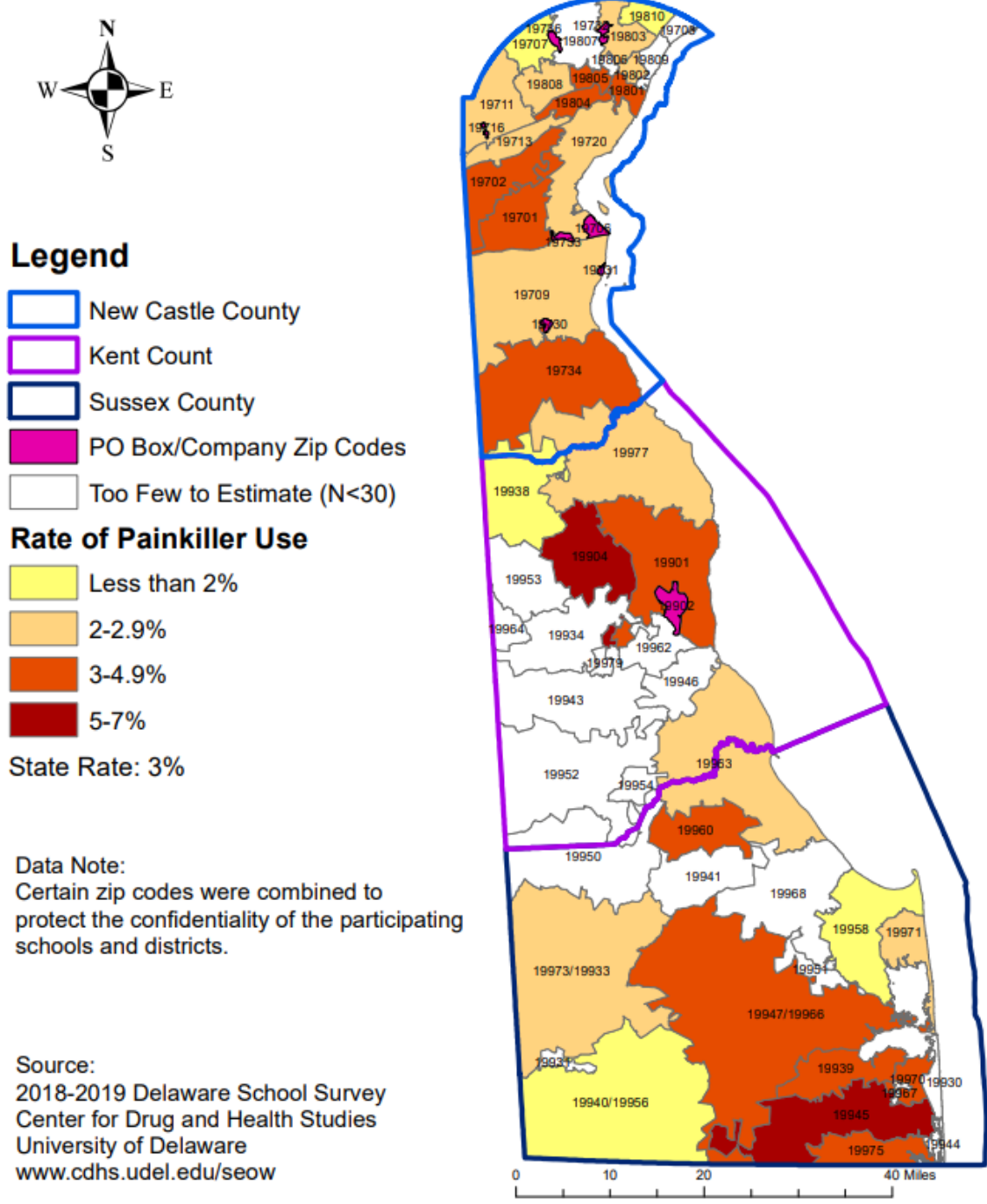


Figure 13: Map of past year prescription painkiller misuse, 8th grade

Note: Prescription misuse is defined by the survey as using a medication without a prescription or in a way other than prescribed.

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Reported Past Year Prescription Painkiller Use Without a Prescription Among Delaware 11th Grade Public School Students: 2018-2019

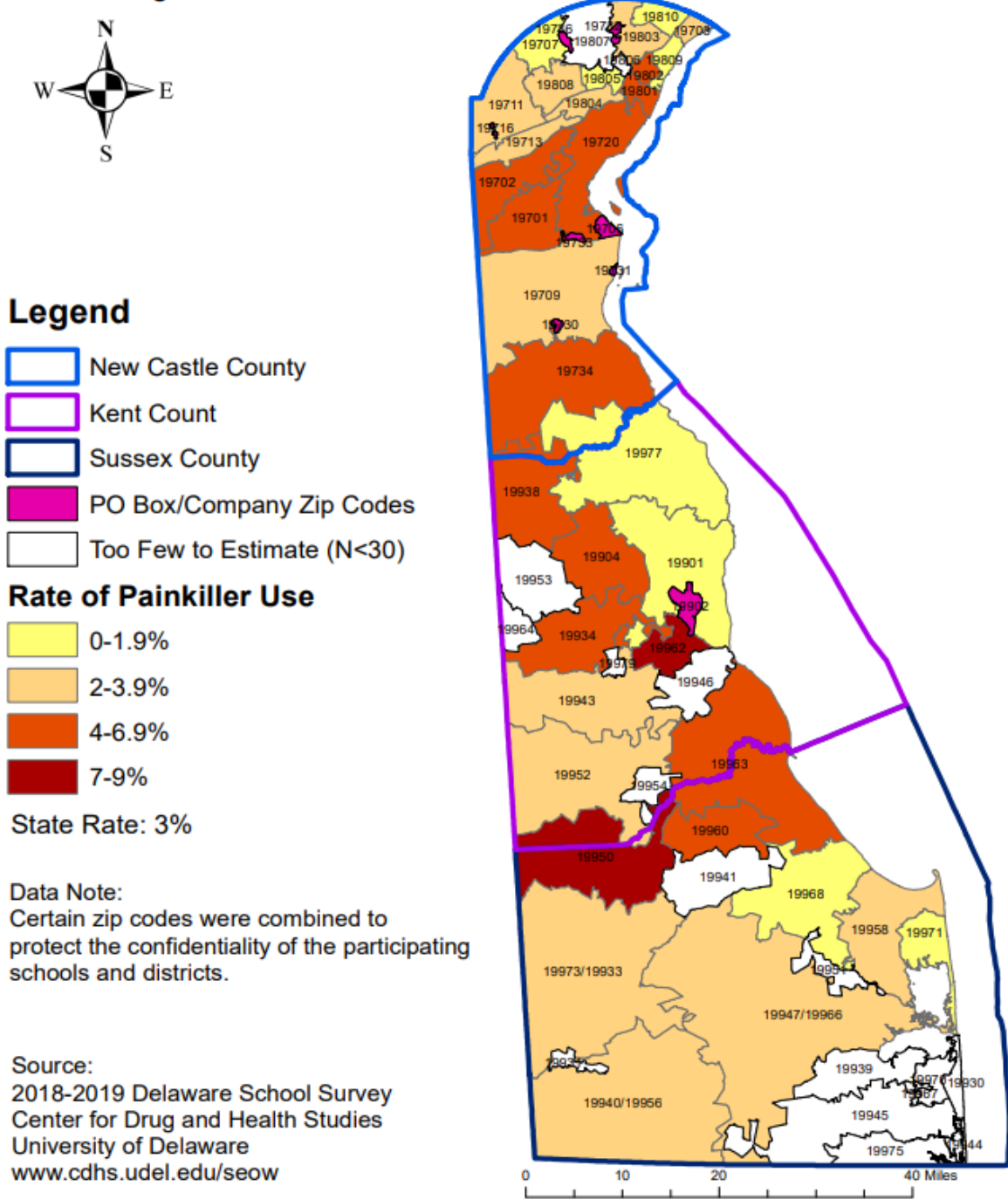


Figure 14: Map of past year prescription painkiller misuse, 11th grade

Note: Prescription misuse is defined by the survey as using a medication without a prescription or in a way other than prescribed.

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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**Reported Past Year Prescription Drugs*
Use Without a Prescription
Among Delaware 8th Grade Public School Students: 2018-2019**

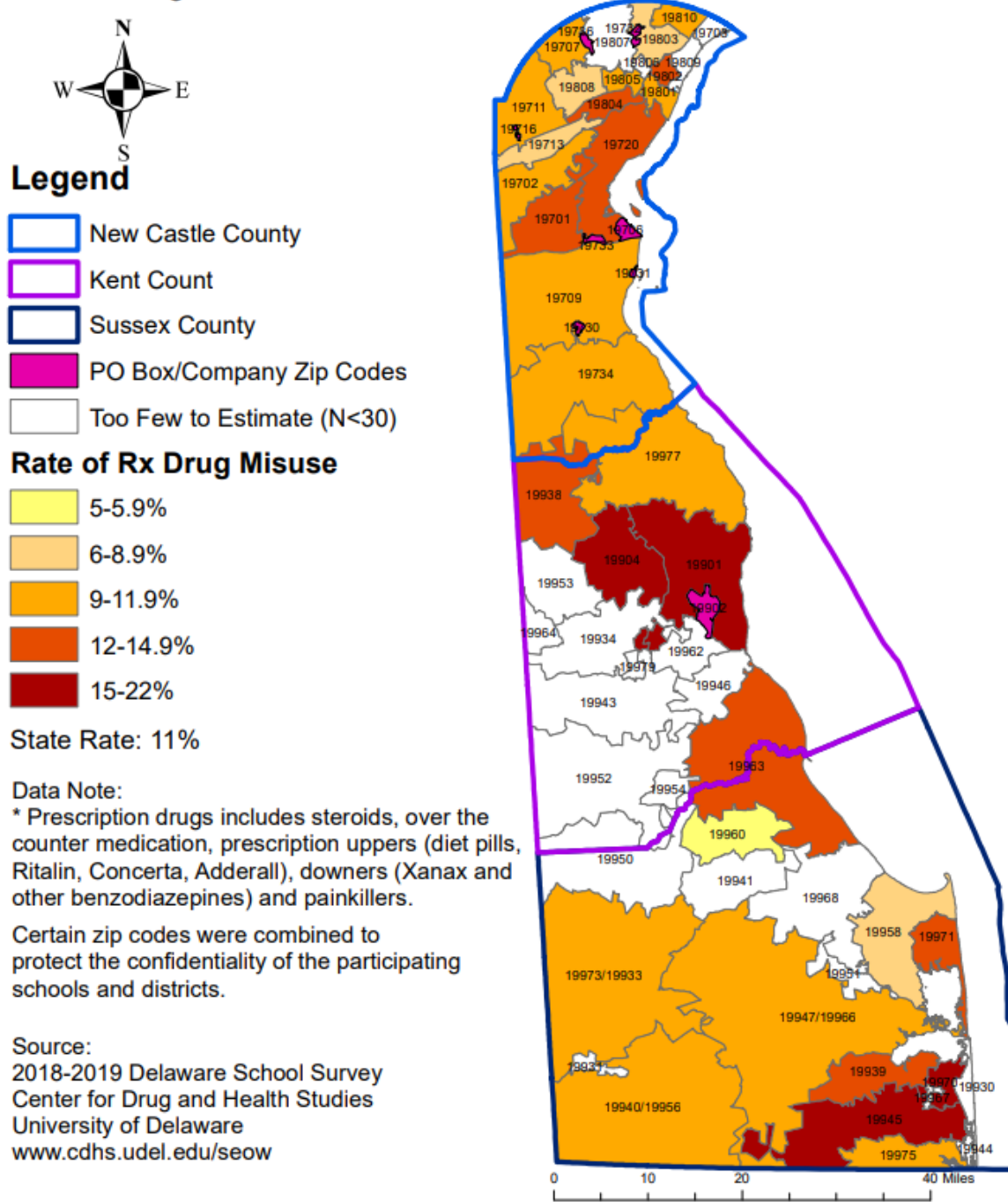


Figure 15: Map of past year prescription drug misuse, 8th grade

Note: Prescription misuse is defined by the survey as using a medication without a prescription or in a way other than prescribed.

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Reported Past Year Prescription Drugs* Use Without a Prescription

Among Delaware 11th Grade Public School Students: 2018-2019

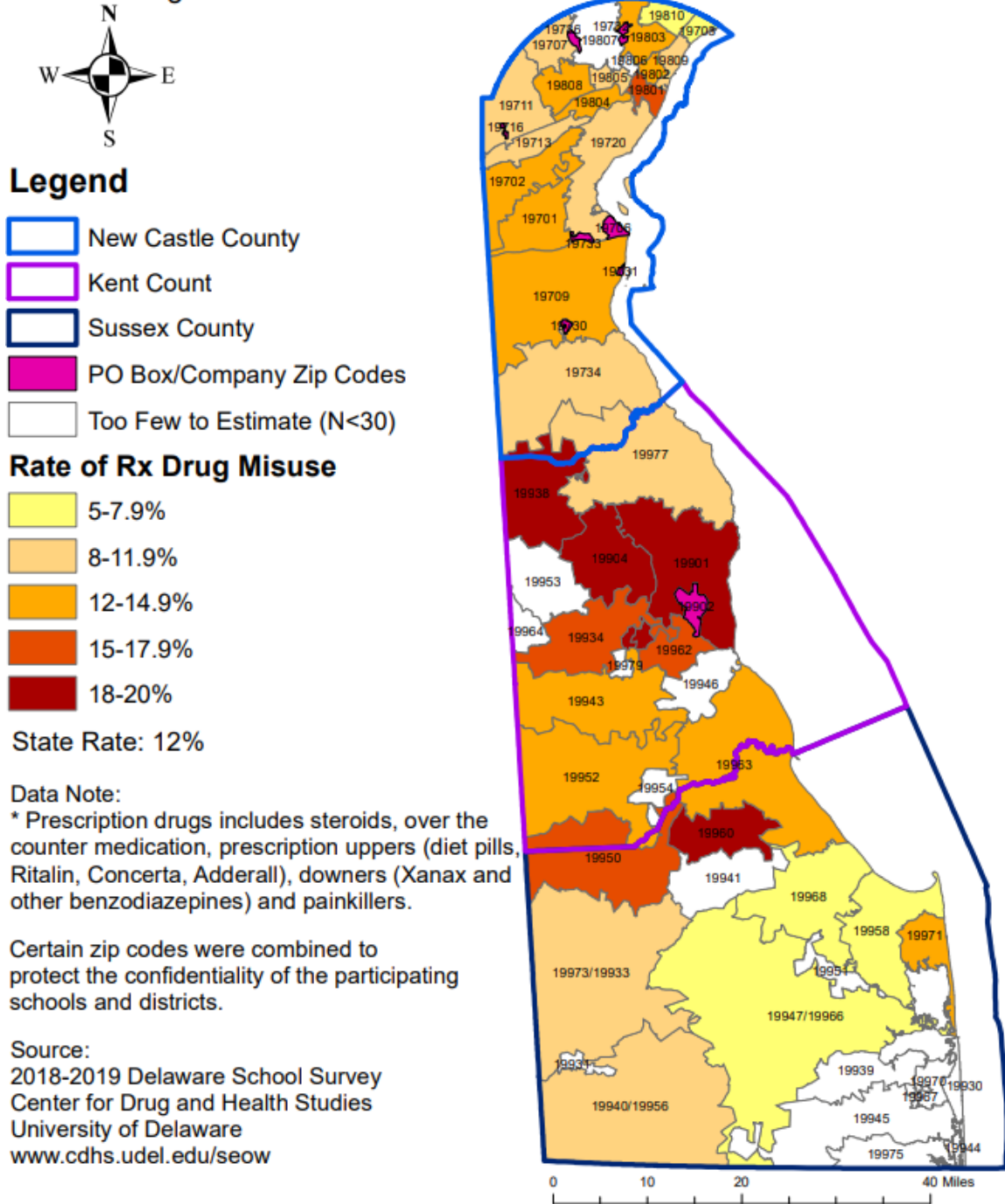


Figure 16: Map of past year prescription drug misuse, 11th grade

Note: Prescription misuse is defined by the survey as using a medication without a prescription or in a way other than prescribed.

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Reported Past Month Vaping Device* Use Among Delaware 8th Grade Public School Students: 2018-2019

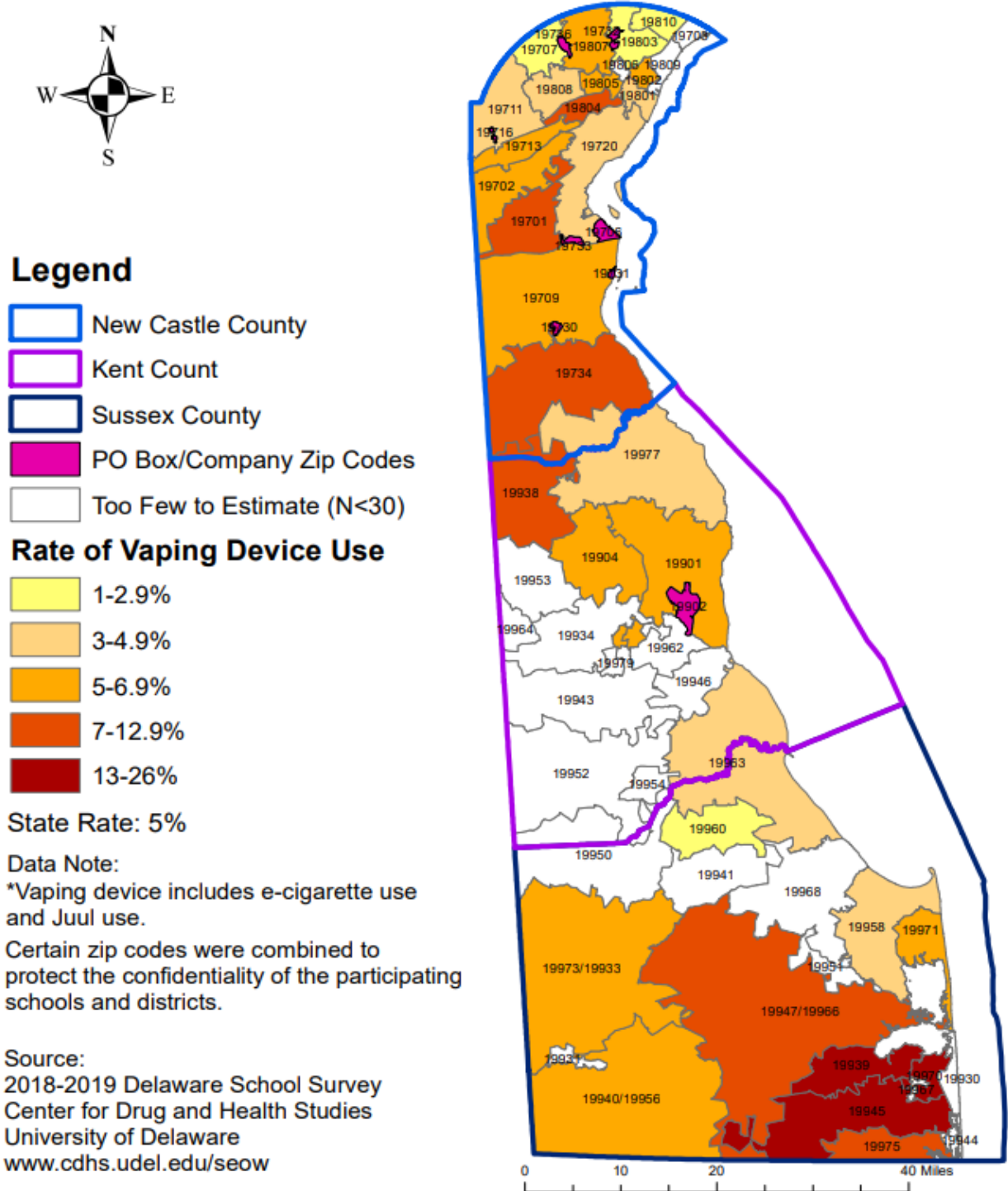


Figure 17: Map of past month vaping, 8th grade

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Reported Past Month Vaping Device* Use Among Delaware 11th Grade Public School Students: 2018-2019

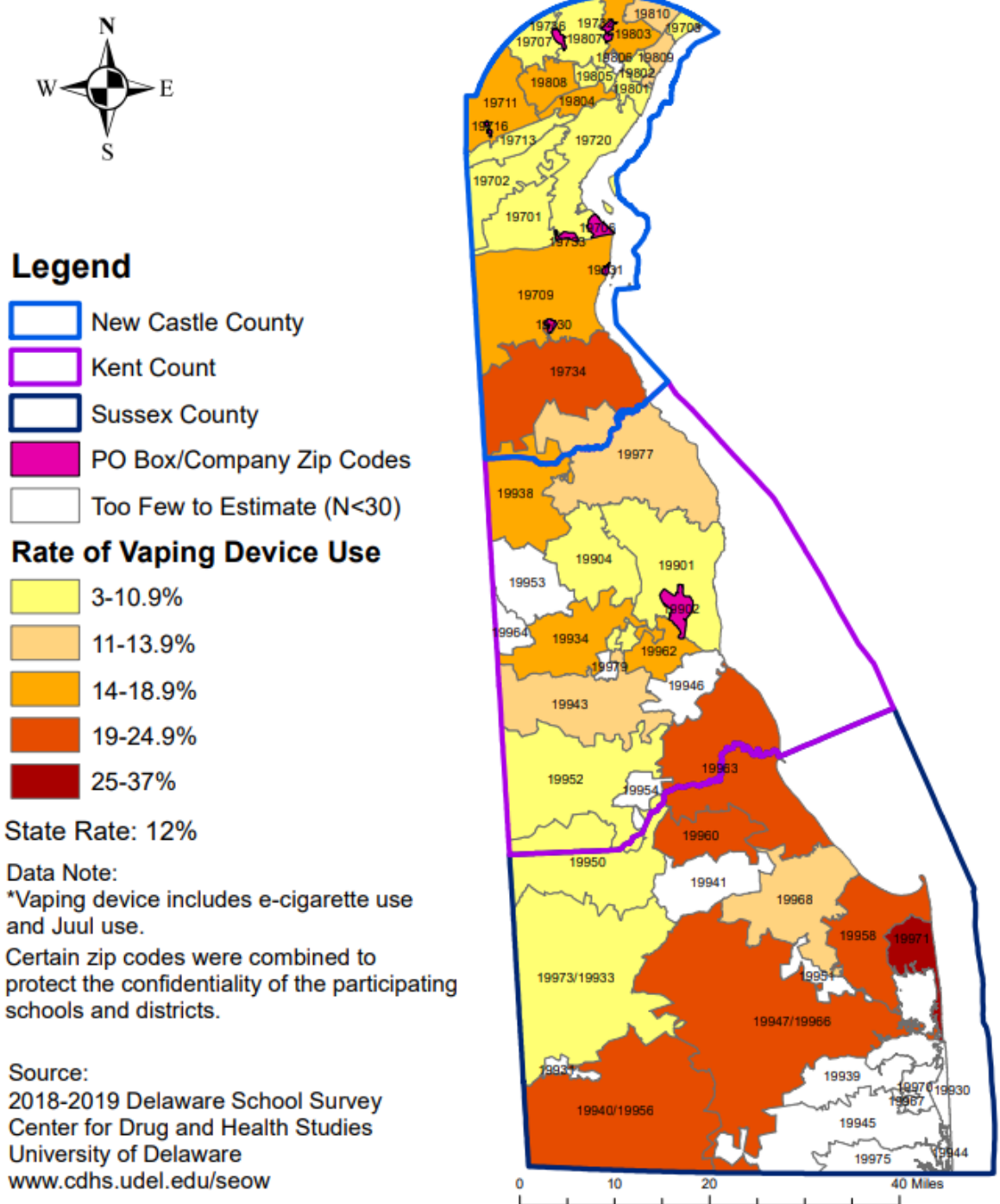


Figure 18: Map of past month vaping, 11th grade

Source: [Center for Drug & Health Studies. \(2020\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2. 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). Currently, almost one in five deaths in the United States 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). New 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.

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; today, approximately 3% of 11th graders report currently smoking cigarettes (Delaware School Survey [DSS], 2019). The reported age of first use has increased slightly since 2001. The average age of onset for cigarette use is 12.4 years among 8th graders and 14.7 years among 11th graders who responded to the 2019 DSS. According to the 2019 YRBS, 8% of students reported first trying a cigarette before age 13. Adult rates have declined as well; self-reports of past month smoking among Delaware adults decreased from 21.8% in 2011 compared to 16.5% in 2018 (Behavioral Risk Factor Surveillance System [BRFSS], 2018).

The CDC's Youth Tobacco Survey (YTS) is conducted every other year at both state and national levels and allows us to gain insights regarding tobacco use behaviors. Findings of the 2018 Delaware YTS indicate that 18% of high school and 15% of middle school students report someone smoking in their home in the past seven days. One in five high school students report riding in a vehicle with someone who was smoking in the past seven days. Along with the associated health risks of secondhand smoke, exposure to cigarette use increases the likelihood of smoking later in life. Peer pressure can also play a major role; however, according to the 2018 YTS, most students do not believe people who smoke have more friends or that smoking helps you to "fit in." Students in high school are more likely than students in middle school to report having a close friend who smokes.

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. Consistent with national trends, youth in Delaware currently report higher rates of vaping than use of regular cigarettes, and 33% of high school students report that one of their four closest friends uses a vaping product. Of note, twice as many middle school students report a close friend using a vaping device or electronic cigarette (16%) as smoking a cigarette (8%) (Delaware

Youth Tobacco Survey [DYTS], 2018). A preference for vaping over cigarettes may be due to individuals perceiving these products as safer alternatives to cigarettes. Students responding to the 2019 Delaware YRBS report a lifetime vaping rate of 43% among high school students, with more than one in four teens reporting current use (28%). Thirteen percent of middle school students report vaping at least once in their lifetime. (For a [detailed profile of vaping among Delaware youth](#) and a discussion of statewide prevention efforts compiled by SEOW stakeholders, please see the [Delaware Journal of Public Health August 2020](#).)

Data in Action: E-cigarette or Vaping-use Associated Lung Injury (EVALI)

In 2019, healthcare professionals across the country began reporting increases in E-cigarette or Vaping Associated Lung Injury (EVALI). According to the Centers for Disease Prevention and Control (CDC) and the Delaware Department of Health and Social Services (DHSS), symptoms of EVALI may include: rapid heartbeat, shortness of breath, nonproductive cough, chest pain, fever, chills, fatigue, gastrointestinal distress, low blood-oxygen levels, and in severe cases, respiratory failure. The number of cases began increasing at the end of the summer and peaked in September 2019; since then, cases of EVALI have declined. By February 2020, a total of 2,807 hospitalized cases or deaths from EVALI had been reported to the CDC from across the country, with 68 confirmed deaths. One of these deaths occurred in the state of Delaware. The symptoms of EVALI can present similarly to influenza and other respiratory illness, and EVALI can also co-occur with these conditions, so it can be difficult for providers to properly diagnose (CDC, 2020; Delaware DHSS, 2020). Recognizing this, in November 2019, the CDC published a *Morbidity and Mortality Weekly Report (MMWR)* providing clinical guidance to health care providers when interviewing patients about their use of e-cigarettes and other vaping devices in cases of suspected EVALI (Jatlaoui, T. et al., 2019).

Data from patients suggest that products containing tetrahydrocannabinol (THC) and the compound Vitamin E acetate have both been strongly linked to the outbreak of lung injury. It is recommended that, regardless of the legal status in their respective state, individuals do not vape THC products or, if they currently vape THC products, they discontinue this practice due to the strong link between THC-containing products and lung injury. While many proponents of vaping argue that use of e-cigarettes and vaping devices has helped them to quit using combustible cigarettes, experts caution that there is still no good evidence that e-cigarettes or vaping are a safe alternative, especially in the light of vaping-associated lung injuries. Our own survey data shows that adolescents in Delaware hold a relatively low perception of harm associated with vaping compared to other substances such as cigarettes or prescription drug misuse, although in recent years the percentage of students who agree that vaping or using an e-cigarette poses a great risk of harm has increased. It is possible that this changing perception of risk may be connected to the news coverage of EVALI and the more widespread understanding of potential risks associated with vaping. 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 Vaping Toolkit](#).

**National Survey on Drug Use and Health
Past-Month Tobacco and Cigarette Use
and Perceptions of Great Risk in Delaware
by Age Group, 2017-2018
(annual average percentages)**

Rates of past month use and perceptions of great risk in Delaware by age group: annual average percentages based on 2017- 2018 NSDUH ^a				
Measure	Total 12 or Older	AGE GROUP		
		12-17	18-25	26 or Older
Tobacco products				
Past month tobacco product use ^b	23.59	4.94	27.40	25.02
Past month cigarette use	18.99	2.81	20.65	20.47
Perceived great risk of smoking one or more packs of cigarettes per day	71.54	67.52	70.30	72.14

Figure 19: Tobacco/cigarette use & perceptions of great risk

Notes:

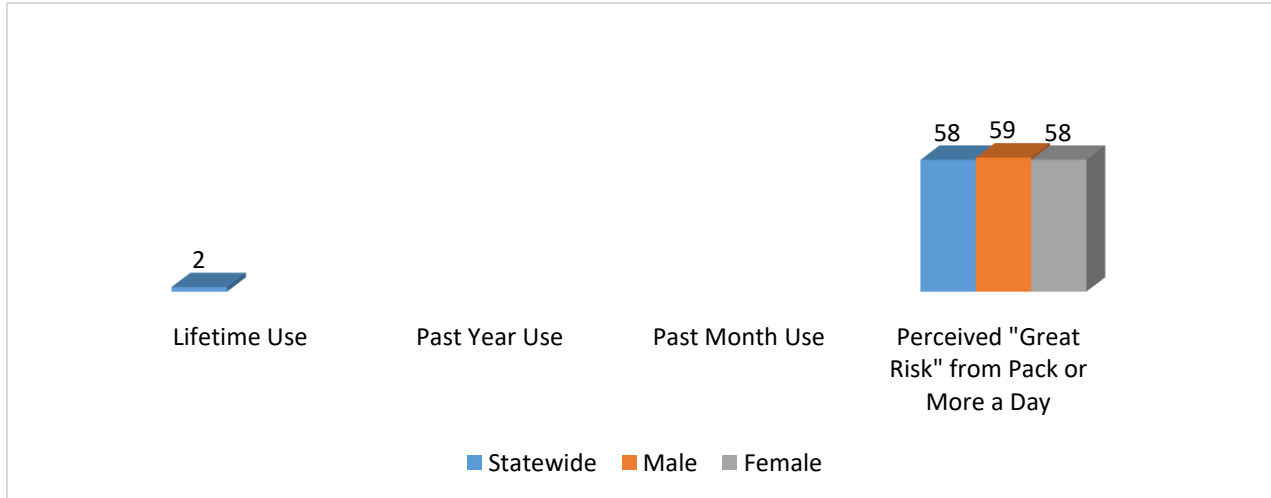
^a Estimates are based on a survey-weighted hierarchical Bayes estimation approach.

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

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

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2019 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	2	-	-	58
Male	-	-	-	59*
Female	-	-	-	58*

Figure 20: Cigarette use, 5th graders

Notes:

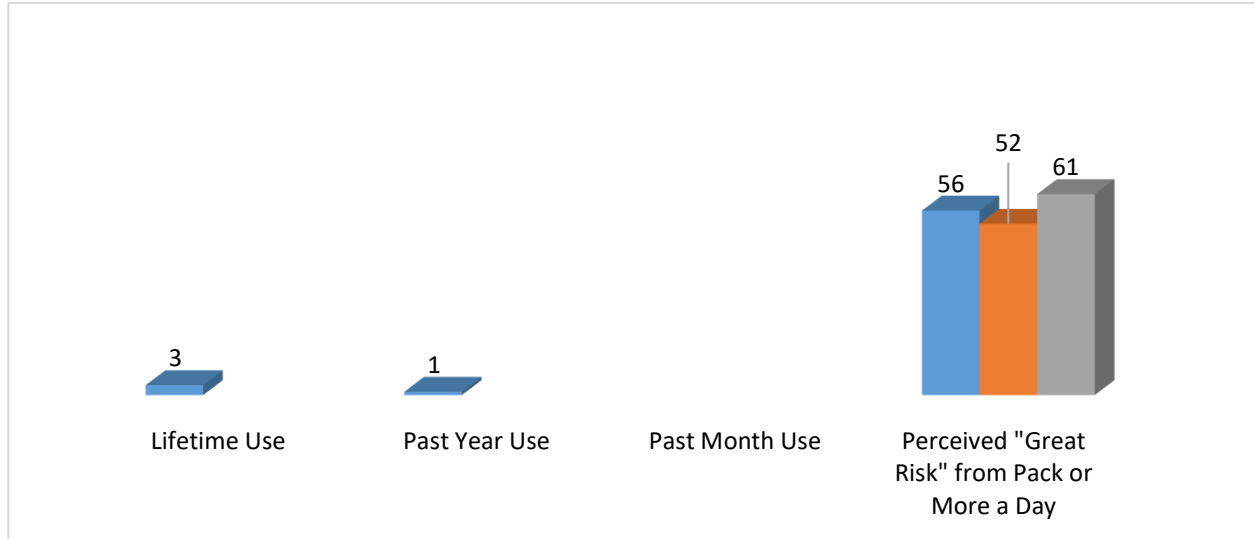
"-" indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: 5th Grade \[Annual Survey\]. University of Delaware.](#)

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2019 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	1	-	56
Male	-	-	-	52
Female	-	-	-	61

Figure 21: Cigarette use, 8th graders

Notes:

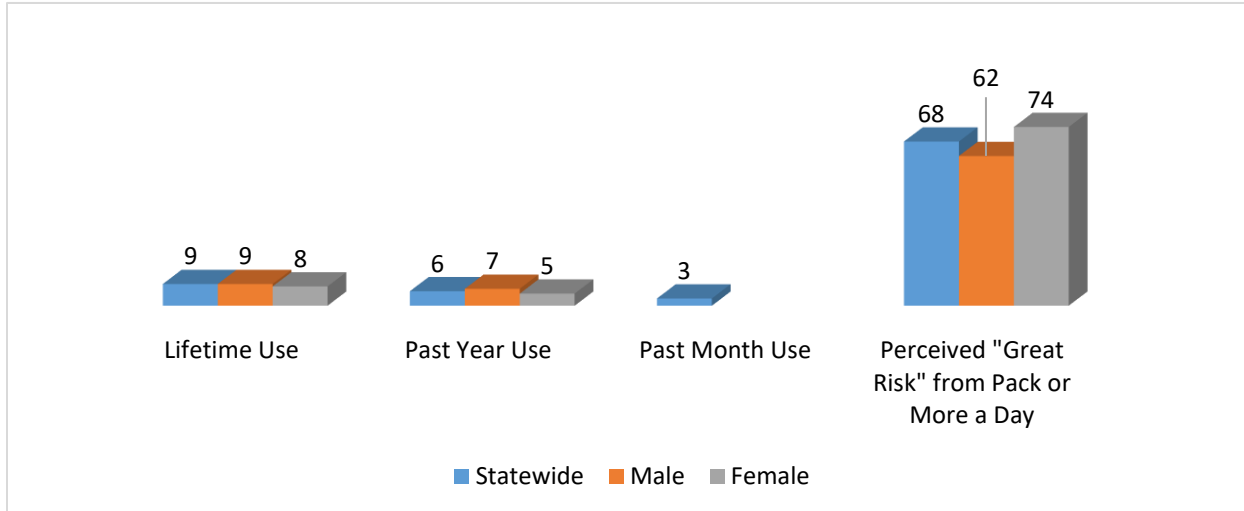
"-" indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

All estimates significant at the p<.05 level unless otherwise noted.

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 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	9	6	3	68
Male	9*	7*	-	62
Female	8*	5*	-	74

Figure 22: Cigarette use, 11th graders

Notes:

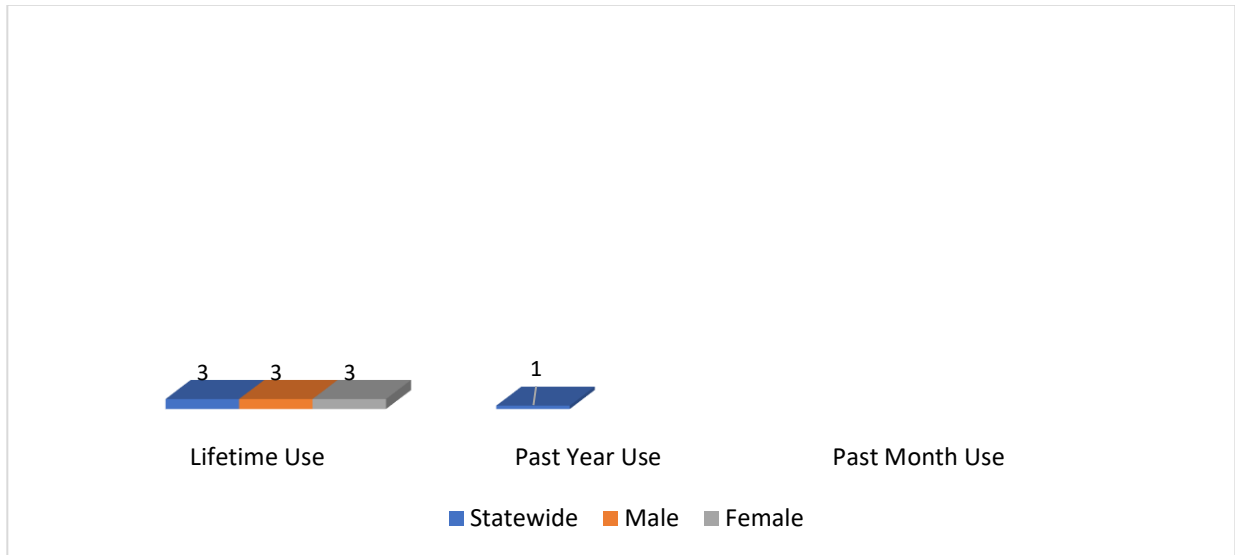
"-" indicates that prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware School Survey Electronic Cigarette/Vaping Device Use among Delaware 5th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use
Statewide	3	1	-
Male	3*	-	-
Female	3*	-	-

Figure 23: Electronic cigarette/vaping device use, 5th graders

Notes:

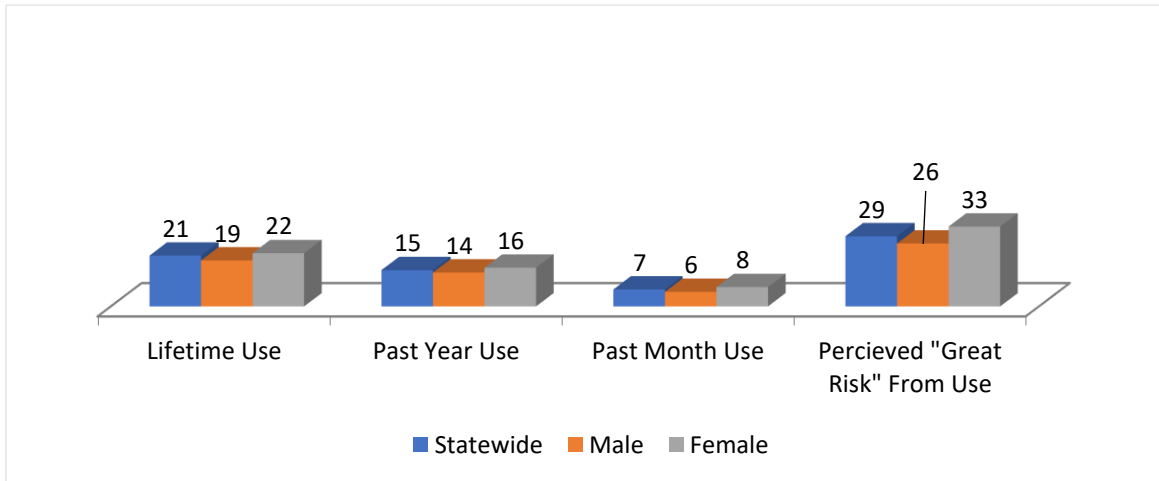
"-" indicates that prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: 5th Grade \[Annual Survey\]. University of Delaware.](#)

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2019 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	21	15	7	29
Male	19*	14*	6*	26
Female	22*	16*	8*	33

Figure 24: Electronic cigarette/vaping device use, 8th graders

Notes:

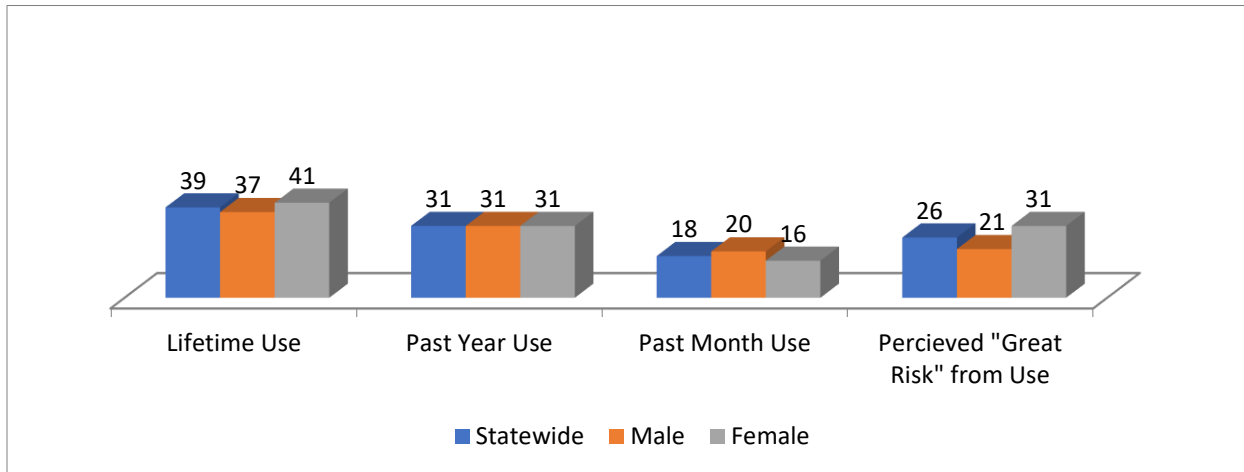
"-" indicates that prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 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	39	31	18	26
Male	37*	31*	20	21
Female	41*	31*	16	31

Figure 25: Electronic cigarette/vaping device use, 11th graders

Notes:

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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**2019 Delaware Youth Risk Behavior Survey
Middle School Students and Cigarette Use,
Lifetime Prevalence and Age of Onset
(in percentages)**

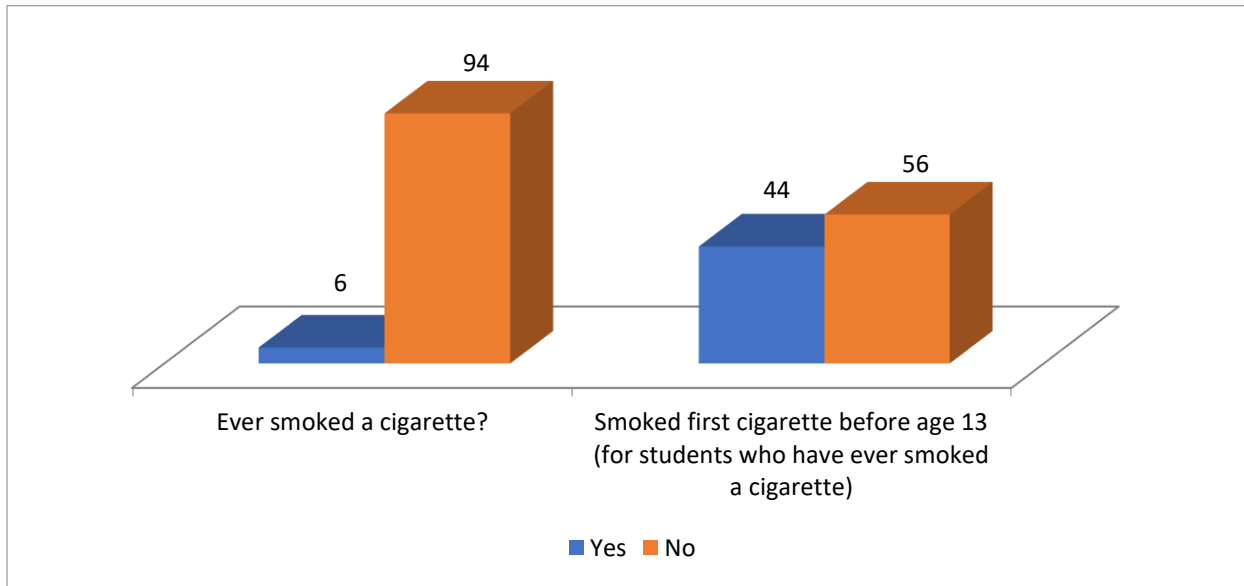


Figure 26: Cigarette use, lifetime prevalence and age of onset among smokers, MS

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey High School Students Who Smoked Cigarettes on One or More of the Past 30 Days, 2019 (in percentages)

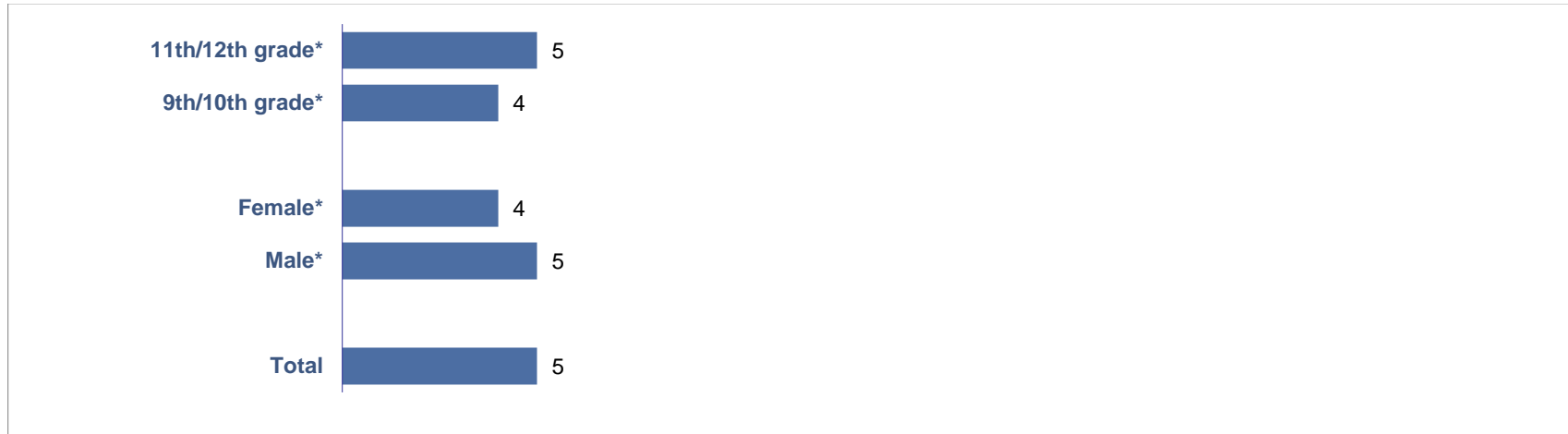


Figure 27: Cigarette smoking in past 30 days, by sex and grade, HS

Notes:

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

Estimates for past month cigarette use by race and ethnicity were too small ($n < 30$) to report with 2019 data.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Middle School Students Who Have Ever Used an Electronic Vapor Product^a (in percentages)

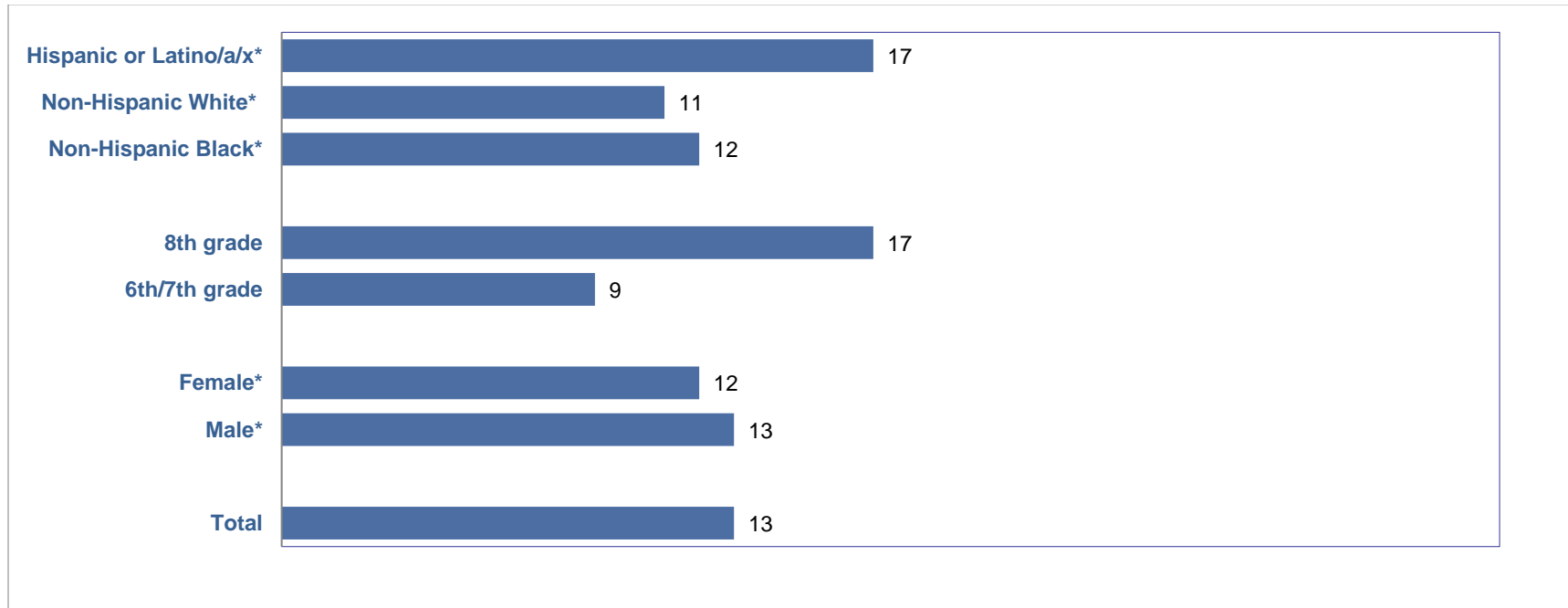


Figure 28: Electronic vapor product use in lifetime, by sex, grade, and race/ethnicity, MS

Notes:

^a Electronic vapor products include e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods (such as JUUL, Vuse, MarkTen, and blu).

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey High School Students Who Have Ever Used an Electronic Vapor Product^a, 2019 (in percentages)

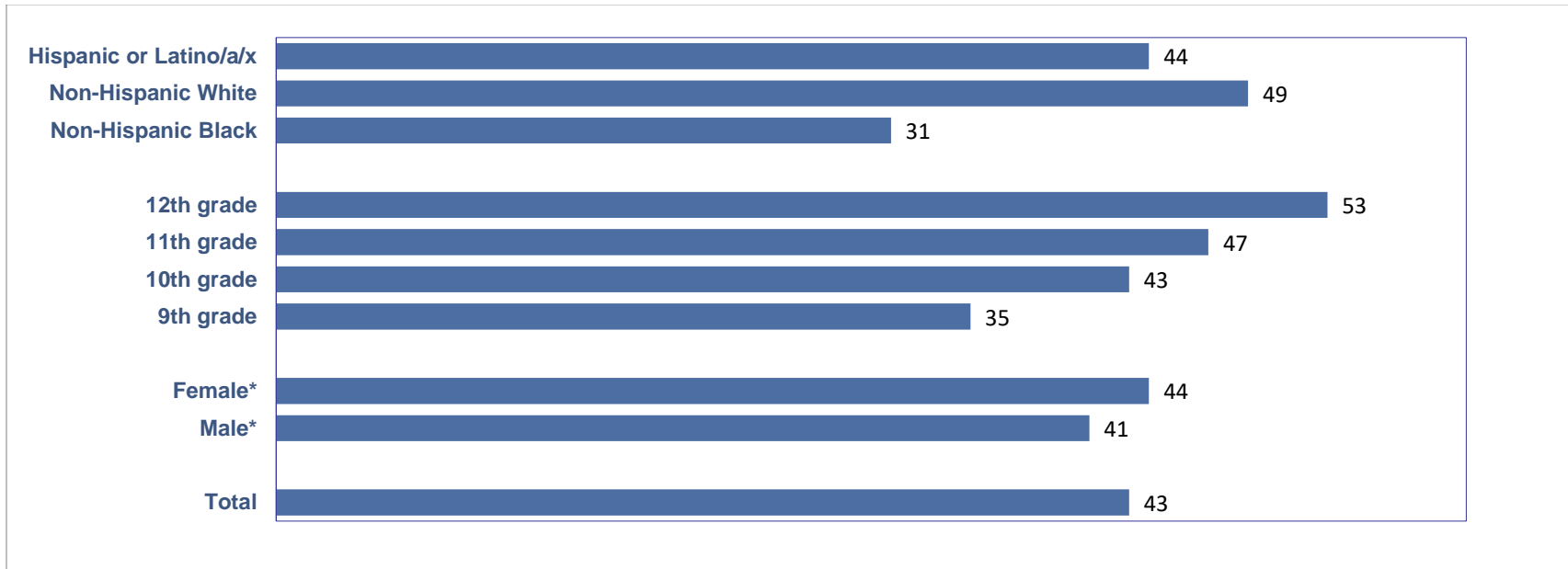


Figure 29: Electronic vapor product use in lifetime, by sex, grade, and race, HS

Notes:

^a Electronic vapor products include e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods (such as JUUL, Vuse, MarkTen, and blu).

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey High School Students Who Used an Electronic Vapor Product^a in the Past Month (in percentages)

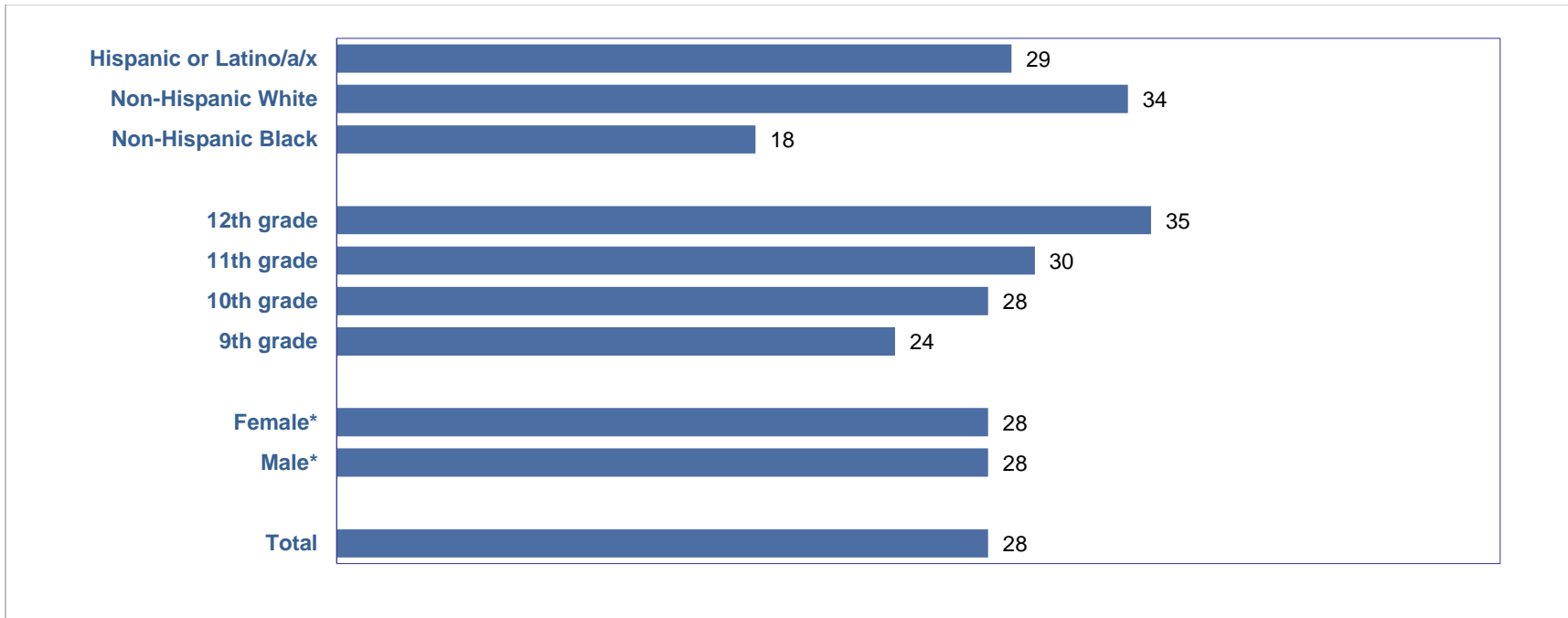


Figure 30: Electronic vapor product use in past month, by sex, grade, and race/ethnicity, HS

Notes:

^a Electronic vapor products include e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods (such as JUUL, Vuse, MarkTen, and blu).

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware School Survey Average Age of Onset for Cigarette Use

8th Grade	11th Grade
12.4 years	14.7 years

Figure 31: Average age of onset for cigarette use, 8th and 11th graders

2019 Delaware Youth Risk Behavior Survey High School Students First Tried a Cigarette Before Age 13 (in percentages)

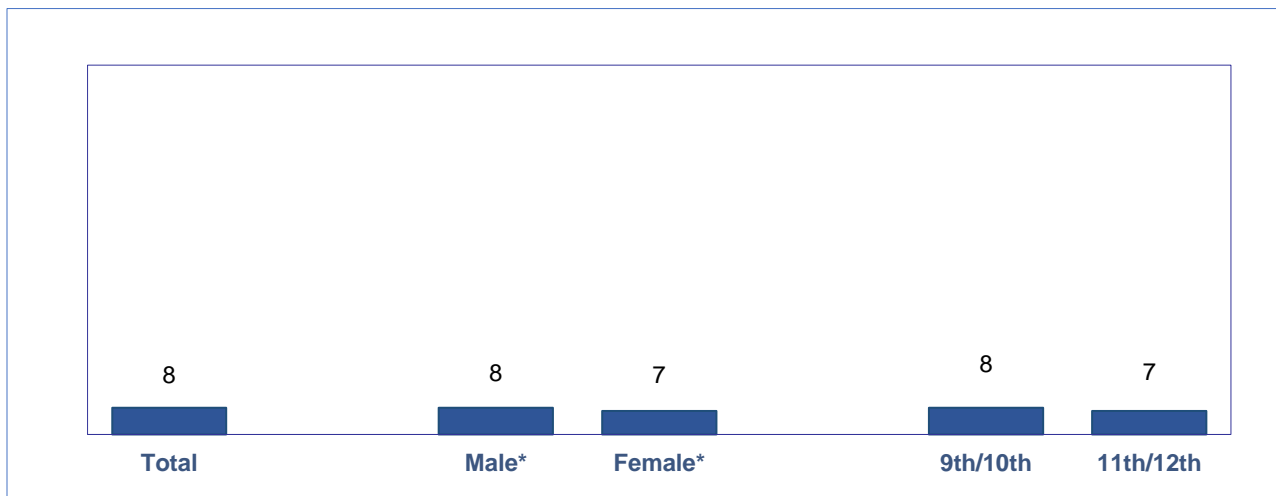


Figure 32: Smoking whole cigarette before age 13, HS

Notes:

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

Sources: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

[Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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Delaware Behavior Risk Factor Surveillance System Adult Cigarette Smoking by Sex, 2018

Sex	Current Smokers	Smoke Everyday	Smoke Some Days
Overall	16.5%	11.8%	4.8%
Male	18.3%	13.0%	5.3%
Female	14.9%	10.6%	4.3%

Figure 33: Cigarette smoking by sex, adult

Adult Cigarette Smoking by Race/Ethnicity, 2018

Race/Ethnicity	Current Smokers	Smoke Everyday	Smoke Some Days
Overall	16.5%	11.8%	4.8%
White, non-Hispanic	17.0%	12.7%	4.3%
Black, non-Hispanic	17.4%	12.4%	5.0%
Hispanic	15.6%	6.9%	8.7%
American Indian or Alaskan Native, non-Hispanic	-	-	-

Figure 34: Cigarette smoking by race/ethnicity, adult

Notes:

“-” 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: [“2018 Delaware Behavior Risk Factor Surveillance System.” BRFSS Prevalence & Trends Data, Centers for Disease Control and Prevention.](#)

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Delaware Behavior Risk Factor Surveillance System Adult Cigarette Smoking by Educational Level, 2018

Educational Level	Current Smokers	Smoke Everyday	Smoke Some Days
Overall	16.5%	11.8%	4.5%
Less Than High School	29%	20.4%	8.6%
High School / G.E.D.	21.6%	16.3%	5.3%
Some Post-H.S.	14.8%	10.2%	4.6%
College Graduate	7.7%	5.0%	2.8%

Figure 35: Cigarette smoking by educational level, adult

Adult Cigarette Smoking by Age Group, 2018

Age Group	Current Smokers	Smoke Everyday	Smoke Some Days
Overall	16.5%	11.8%	4.5%
18 - 24	10.5%	6.9%	-
25 - 34	22.1%	15.0%	7.1%
35 - 44	22.5%	15.8%	6.6%
45 - 54	19.4%	14.9%	4.5%
55 - 64	18.3%	13.3%	5.0%
65 and Older	8.5%	5.9%	2.6%

Figure 36: Cigarette smoking by age group, adult

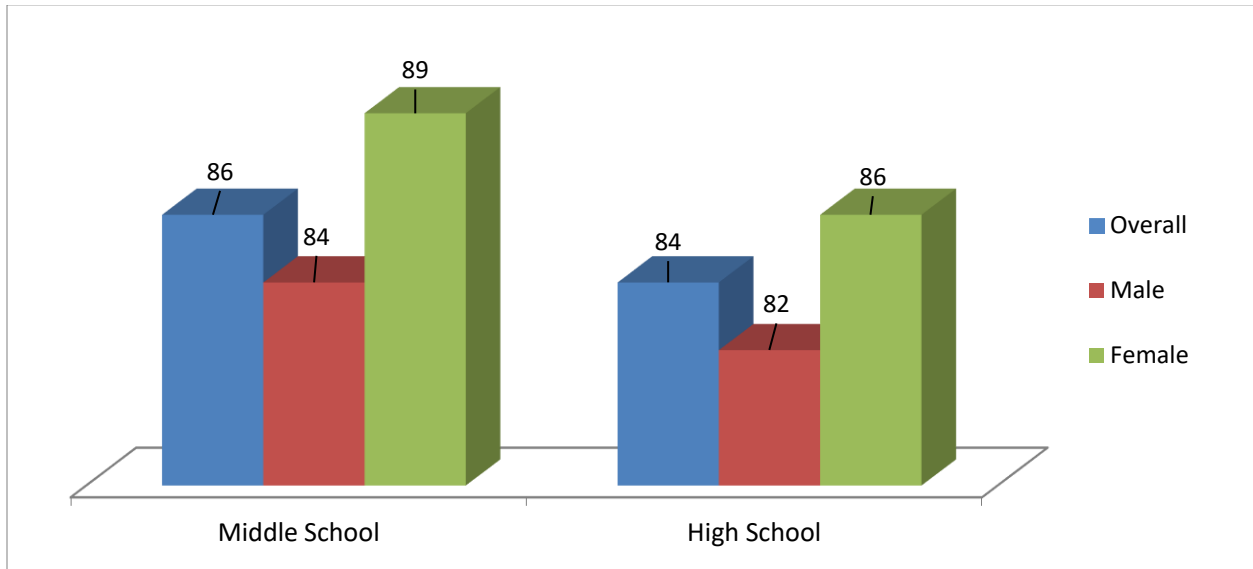
Notes:

“-” 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: [“2018 Delaware Behavior Risk Factor Surveillance System.” BRFSS Prevalence & Trends Data, Centers for Disease Control and Prevention.](#)

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**2018 Delaware Youth Tobacco Survey
Students Who Reported Perception
that Second-Hand Smoke is Harmful
(in percentages)**



	Middle School	High School
Statewide	86	84
Male	84	82
Female	89	86

Figure 37: Perception that second-hand smoke is harmful, MS & HS

Notes:

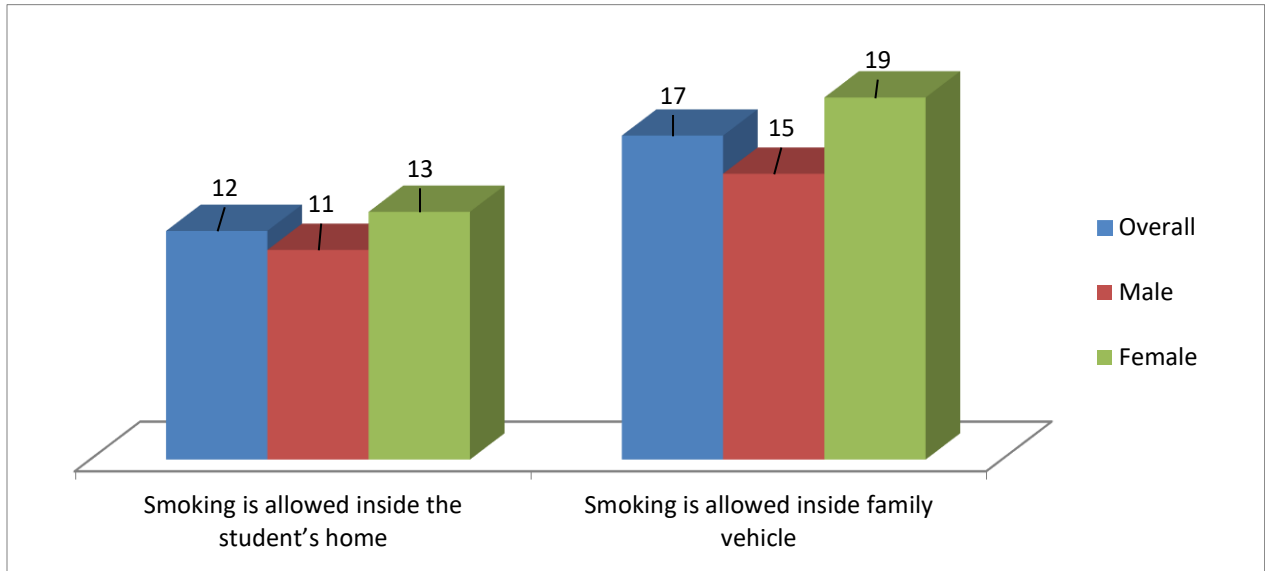
Weighted data.

*Unless otherwise noted, all estimates are statistically significant at the p<.05 level.

Source: [Center for Drug & Health Studies. \(2018\). Youth Tobacco Survey \[Biennial Survey\]. University of Delaware.](#)

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2018 Delaware Youth Tobacco Survey Middle School Students' Reported Smoking Rules (in percentages)



	Smoking is Allowed Inside the MS Student's Home	Smoking is Allowed Inside MS Family Vehicle
Statewide	12	17
Male	11*	15
Female	13*	19

Figure 38: Cigarette smoking rules, MS

Notes:

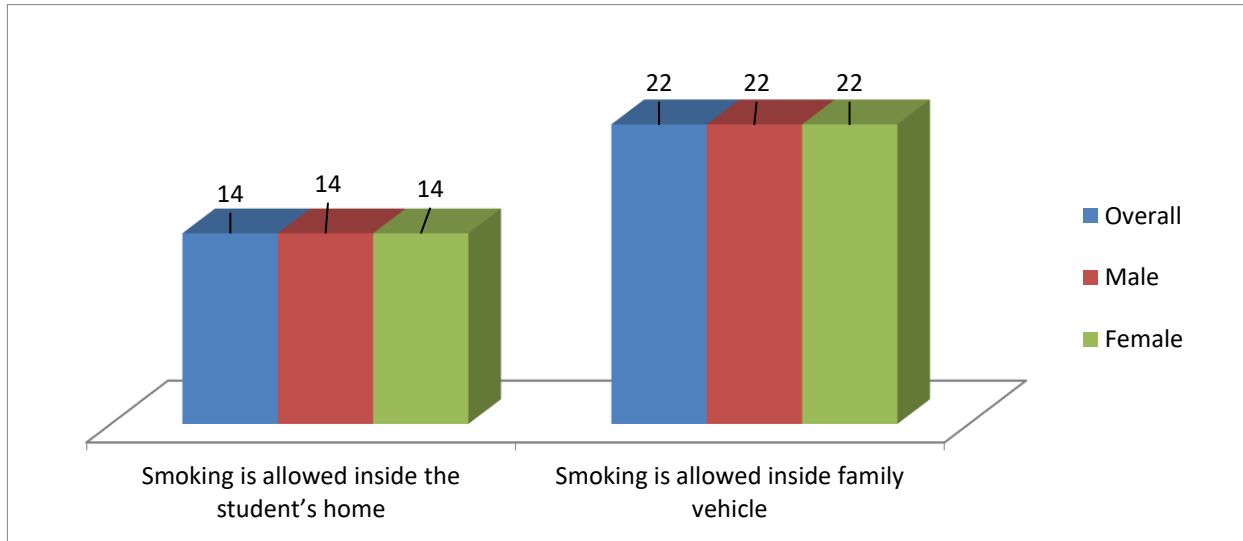
Weighted data.

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

Source: Center for Drug & Health Studies. (2018). Youth Tobacco Survey [Biennial Survey]. University of Delaware.

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2018 Delaware Youth Tobacco Survey High School Students' Reported Smoking Rules (in percentages)



	Smoking is Allowed Inside the HS Student's Home	Smoking is Allowed Inside HS Family Vehicle
Statewide	14	22
Male	14	22*
Female	14	22*

Figure 39: Cigarette smoking rules, HS

Notes:

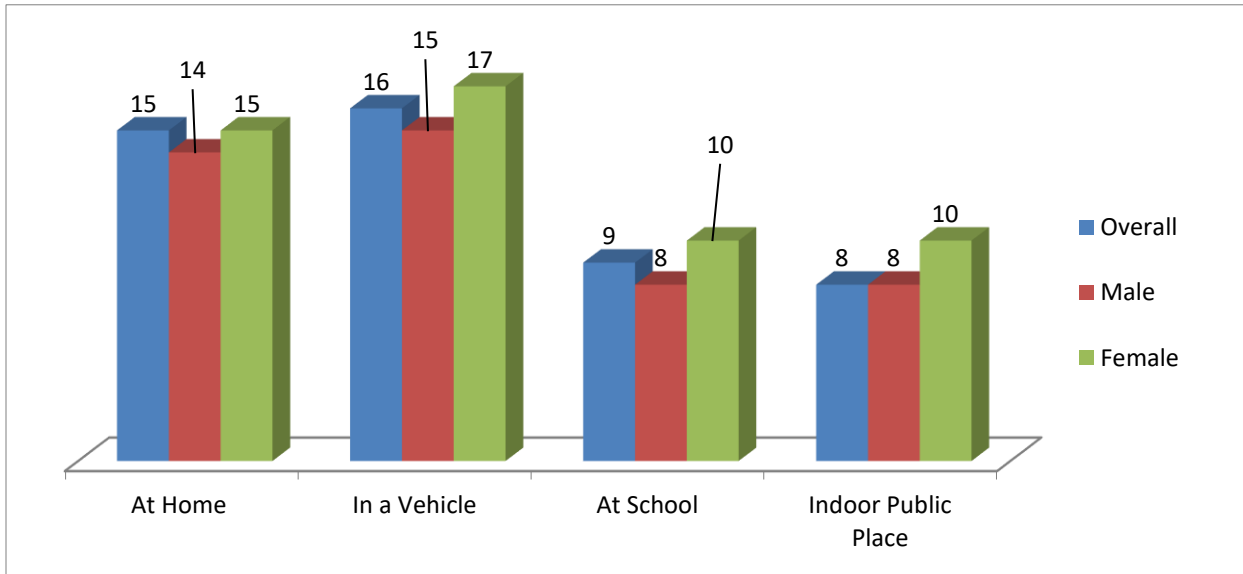
Weighted data.

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

Source: Center for Drug & Health Studies. (2018). Youth Tobacco Survey [Biennial Survey]. University of Delaware.

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2018 Delaware Youth Tobacco Survey Middle School Students' Exposure to Secondhand Smoke in the Past Week (in percentages)



	At Home	In a Vehicle	At School	In an Indoor Public Place Last Week
Statewide	15	16	9	8
Male	14*	15*	8*	8*
Female	15*	17*	10*	10*

Figure 40: Exposure to secondhand smoke in past week, MS

Notes:

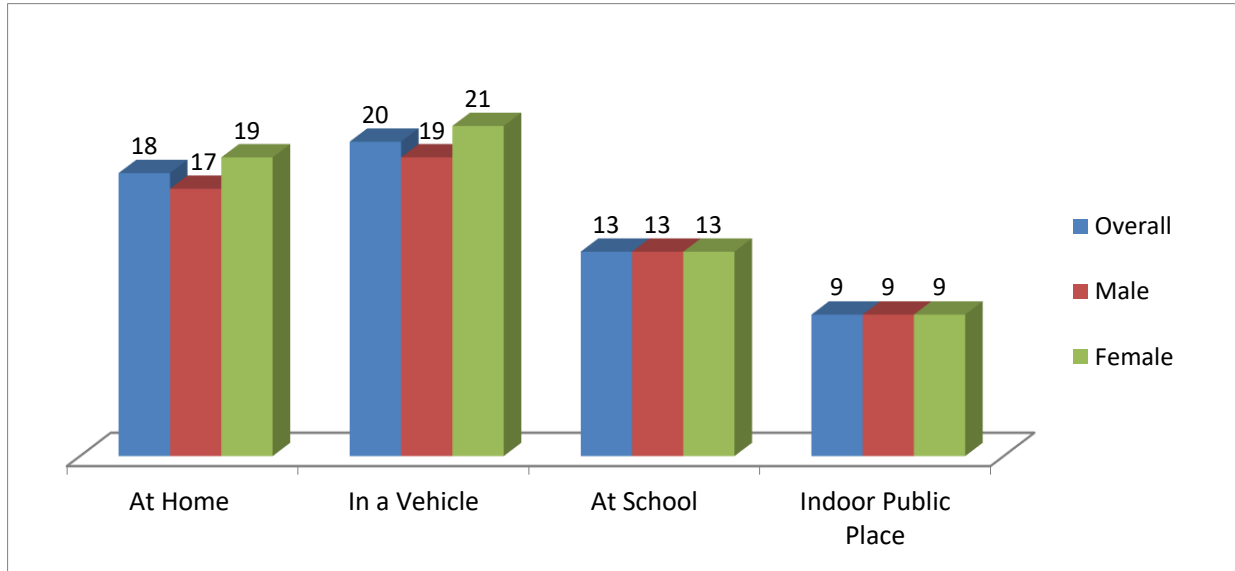
Weighted data.

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

Source: Center for Drug & Health Studies. (2018). Youth Tobacco Survey [Biennial Survey]. University of Delaware.

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2018 Delaware Youth Tobacco Survey High School Students' Exposure to Secondhand Smoke in the Past Week (in percentages)



	At Home	In a Vehicle	At School	In an Indoor Public Place Last Week
Statewide	18	20	13	9
Male	17	19	13	9
Female	19	21	13	9

Figure 41: Exposure to secondhand smoke in past week, HS

Notes:

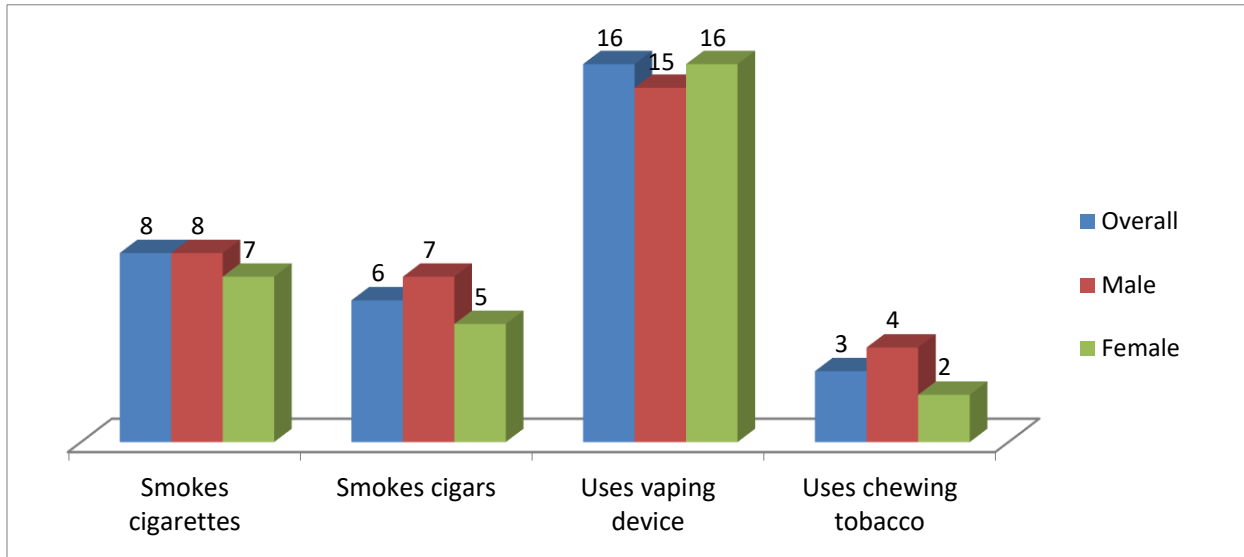
Weighted data.

*Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

Source: Center for Drug & Health Studies. (2018). Youth Tobacco Survey [Biennial Survey]. University of Delaware.

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2018 Delaware Youth Tobacco Survey
Middle School Students Who Reported at Least
One of their Four Closest Friends Uses Tobacco Product
(in percentages)



	Smokes Cigarettes	Smokes Cigars	Uses Vaping Device	Uses Chewing Tobacco
Statewide	8	6	16	3
Male	8	7*	15*	4*
Female	7	5*	16*	2*

Figure 42: One of four closest friends uses tobacco product, MS

Notes:

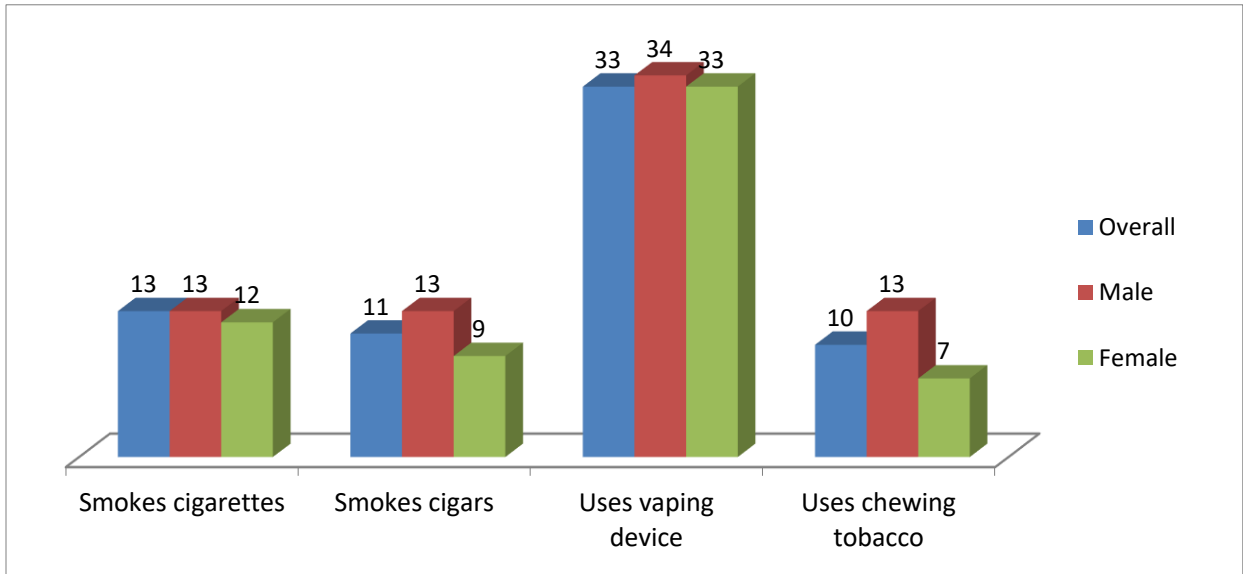
Weighted data.

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

Source: Center for Drug & Health Studies. (2018). Youth Tobacco Survey [Biennial Survey]. University of Delaware.

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2018 Delaware Youth Tobacco Survey
High School Students Who Reported at Least
One of their Four Closest Friends Uses a Tobacco Product
(in percentages)



	Smokes Cigarettes	Smokes Cigars	Uses Vaping Device	Uses Chewing Tobacco
Statewide	13	11	33	10
Male	13	13	34	13
Female	12	9	33	7

Figure 43: One of four closest friends uses tobacco product, HS

Notes:

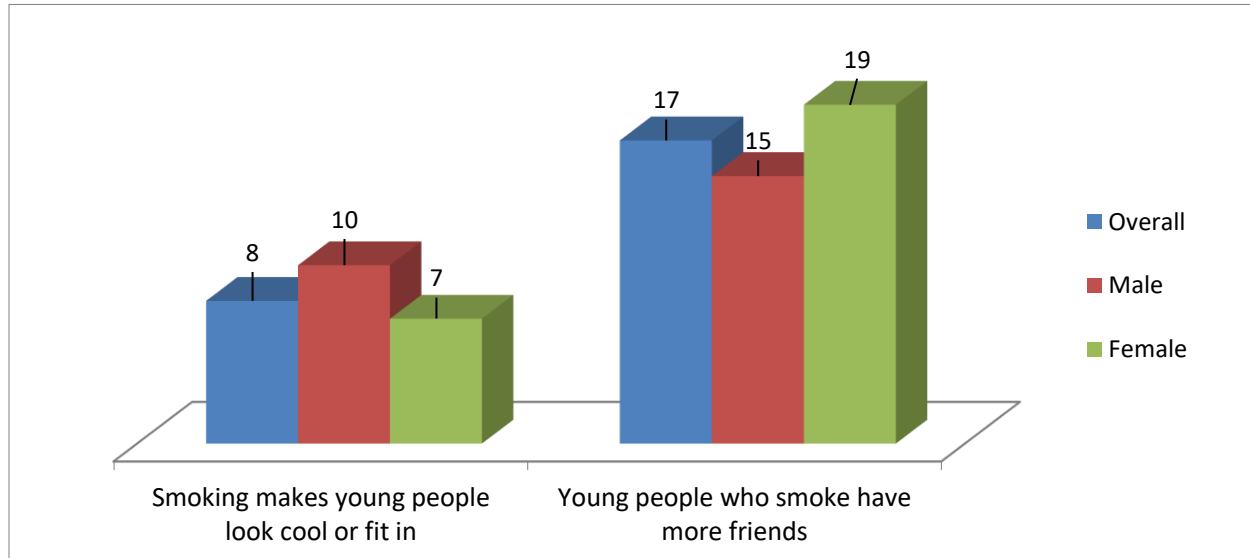
Weighted data

*Unless otherwise noted, all estimates are statistically significant at the p<.05 level.

Source: Center for Drug & Health Studies. (2018). Youth Tobacco Survey [Biennial Survey]. University of Delaware.

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2018 Delaware Youth Tobacco Survey Middle School Students' Attitudes Toward Smoking (in percentages)



	Smoking Makes Young People Look Cool or Fit In	Young People Who Smoke Have More Friends
Statewide	8	17
Male	10*	15
Female	7*	19

Figure 44: Attitudes toward smoking, MS

Notes:

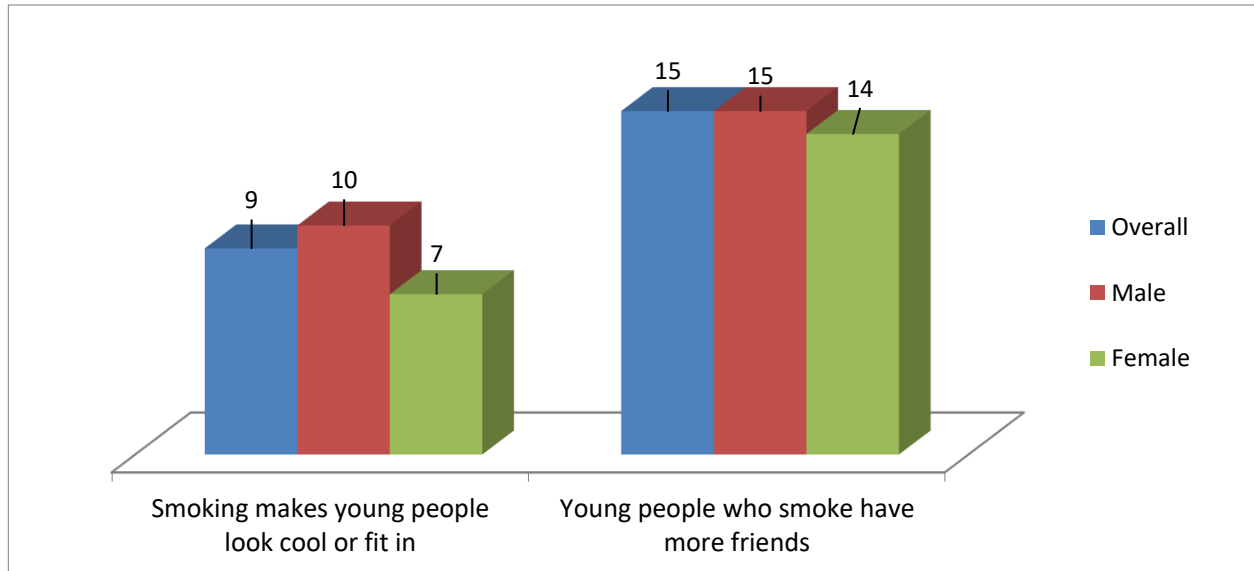
Weighted data

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

Source: Center for Drug & Health Studies. (2018). Youth Tobacco Survey [Biennial Survey]. University of Delaware.

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2018 Delaware Youth Tobacco Survey High School Students' Attitudes Toward Smoking (in percentages)



	Smoking Makes Young People Look Cool or Fit In	Young People Who Smoke Have More Friends
Statewide	9	15
Male	10	15
Female	7	14

Figure 45: Attitudes toward smoking, HS

Notes:

Weighted data

*Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

Source: Center for Drug & Health Studies. (2018). Youth Tobacco Survey [Biennial Survey]. University of Delaware.

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Delaware School Survey

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

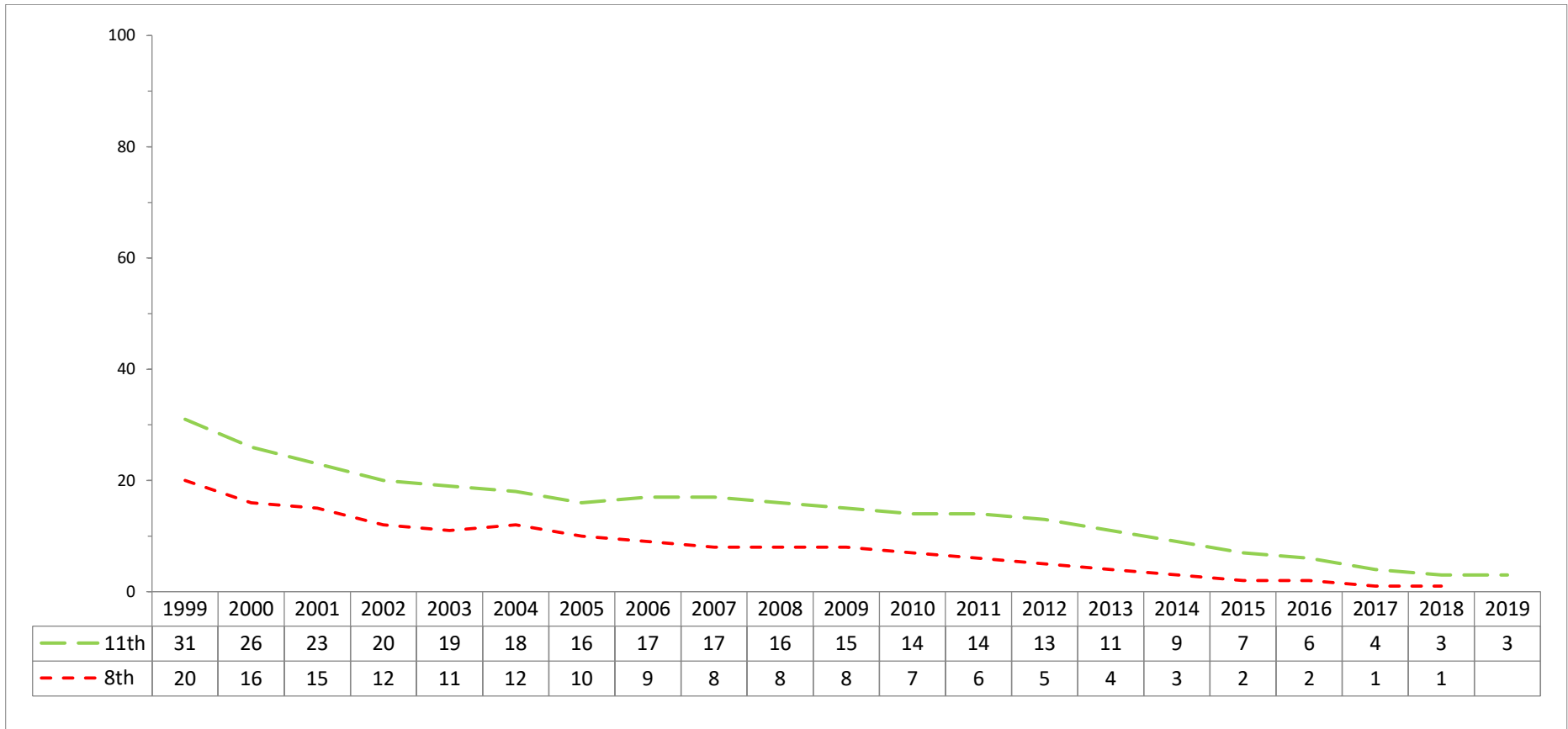


Figure 46: Trends in students' past-month cigarette use, 8th and 11th grade

Notes:

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

Source: [Center for Drug & Health Studies. \(2019\). 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)

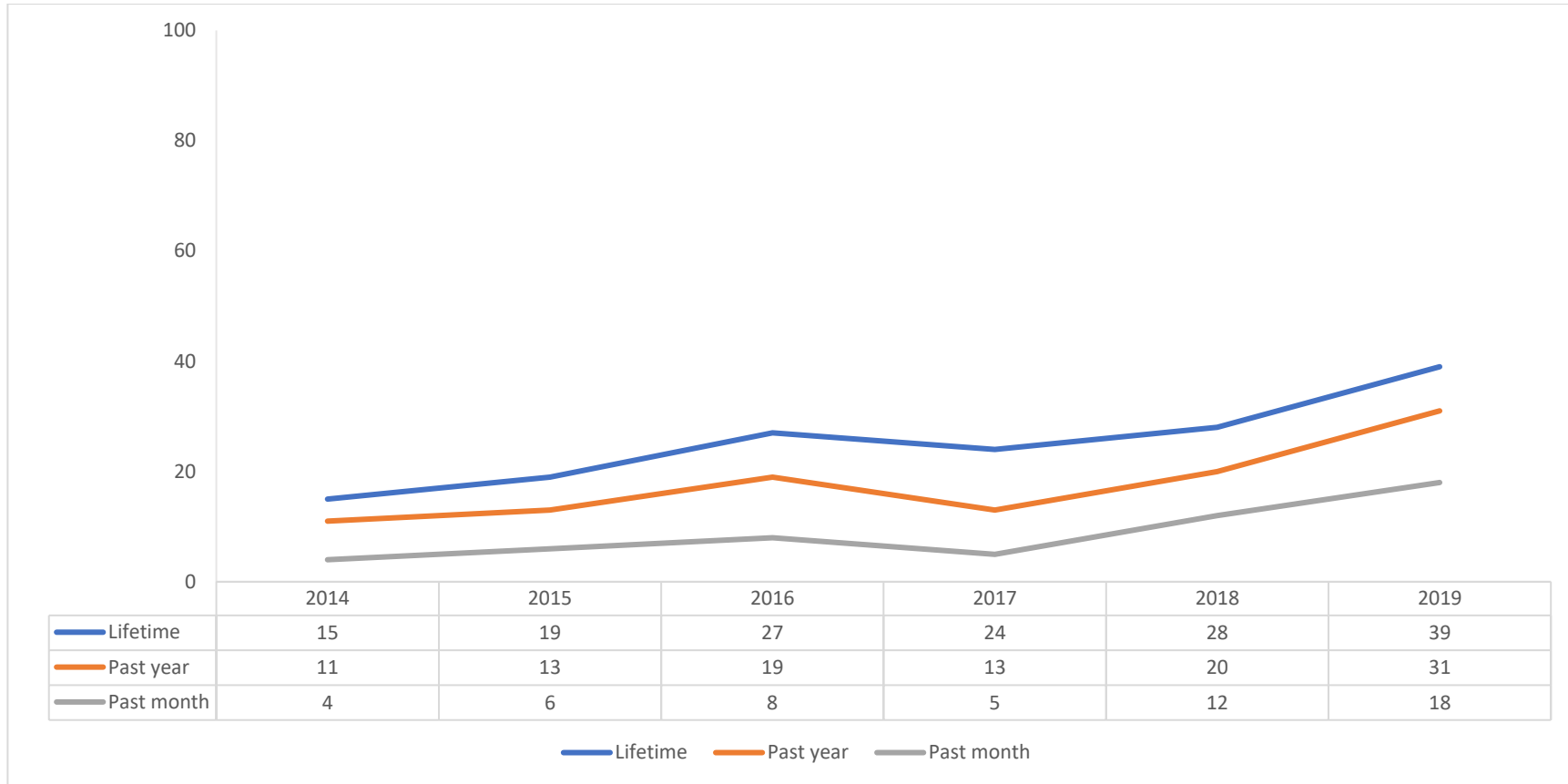


Figure 47: Trends in vaping, 11th grade

Notes:

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Delaware Youth Risk Behavior Survey Emerging Trends in High School Students' Electronic Vapor Product Use^a, 2015-2019

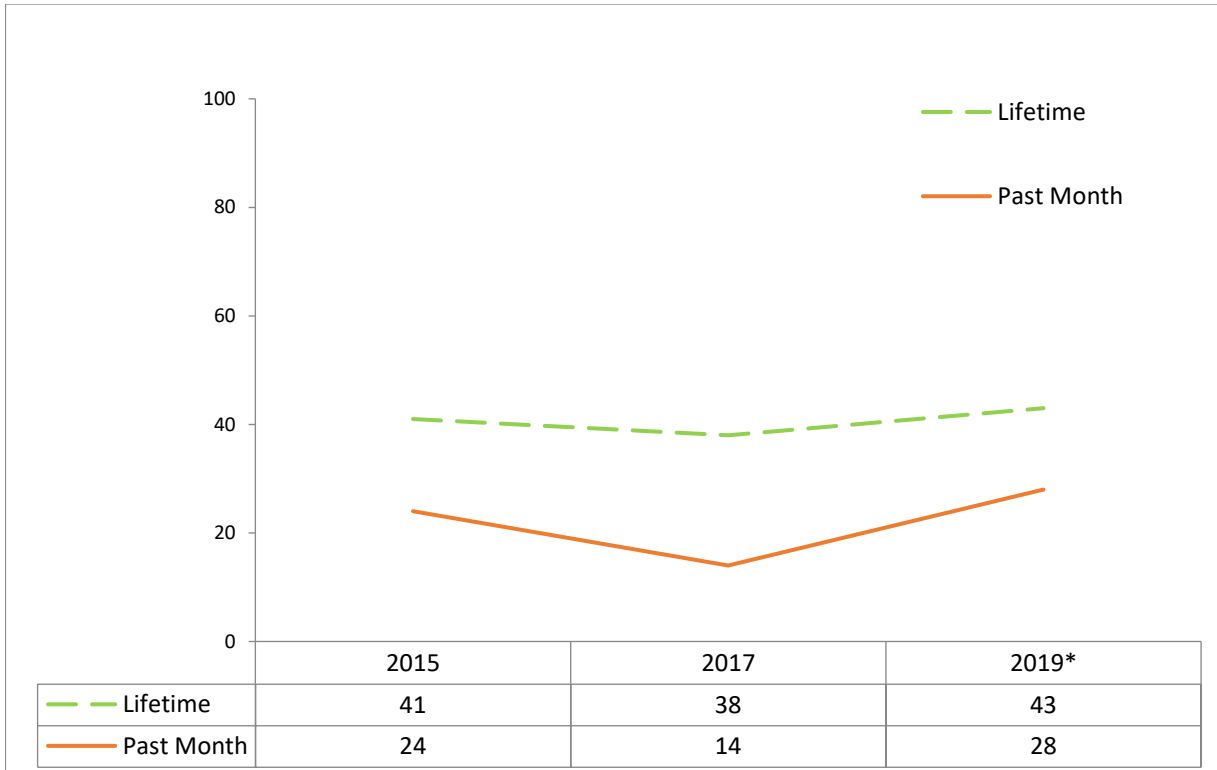


Figure 48: Emerging trends in vaping device use, HS

Notes:

^a Electronic vapor products include e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods (such as JUUL, Vuse, MarkTen, and blu).

*Data is weighted except for 2019.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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National Survey on Drug Use and Health

Past-Month Tobacco Product Use by Age Group and Region, 2016-2017 and 2017-2018 (in percentages)

	AGE GROUP											
	12 or Older			12-17			18-25			26 or Older		
	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b
Total U.S.	22.99	21.96	.000	5.10	4.55	.000	29.52	27.46	.000	24.04	23.11	.000
Northeast	21.91	20.30	.000	4.59	4.18	.051	29.91	27.70	.000	22.50	20.85	.000
Delaware	21.77	23.59	.077	4.02	4.94	.064	27.74	27.40	.825	22.80	25.02	.080

Figure 49: Tobacco product use, past month, by age group and region

Past-Month Cigarette Use by Age Group and Region, 2016-2017 and 2017-2018 (in percentages)

	AGE GROUP											
	12 or Older			12-17			18-25			26 or Older		
	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b
Total U.S.	18.47	17.52	.000	3.29	2.93	.002	22.90	20.73	.000	19.54	18.71	.000
Northeast	17.54	16.22	.000	2.94	2.60	.041	22.38	20.28	.000	18.34	17.03	.002
Delaware	18.36	18.99	.489	2.56	2.81	.458	21.69	20.65	.428	19.56	20.47	.421

Figure 50: Cigarette use, past month, by age group and region

Notes:

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

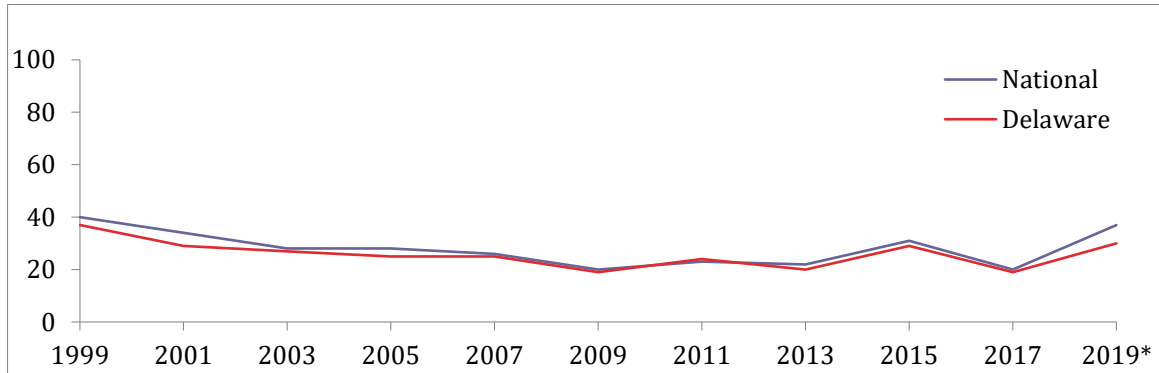
^b *p* value: Bayes significance levels for the null hypothesis of no change between the 2016-2017 and 2017-2018 population percentages.

Source: [“National Survey on Drug Use and Health: Comparison of 2016-2017 and 2017-2018 Population Percentages \(50 States and District of Columbia\).” Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.](#)

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Delaware Youth Risk Behavior Survey National and Delaware, 1999-2019

Past Month Use of Tobacco Products among High School Students (cigarette, smokeless tobacco, cigar, or electronic cigarette^a) (in percentages)



Year	National	Delaware
1999	40	37
2001	34	29
2003	28	27
2005	28	25
2007	26	25
2009	20	19
2011	23	24
2013	22	20
2015	31	29
2017	20	19
2019*	37	30

Figure 51: Trends in tobacco product use, past month, HS

Notes:

^a Electronic cigarette was added to the overall past month tobacco use measure in 2015; this had a noticeable impact on the past month tobacco rate.

*National data is weighted; Delaware data is weighted except for in 2019.

Sources: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

[Centers for Disease Control and Prevention. \(2019\). National High School Youth Risk Behavior Survey.](#)

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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)

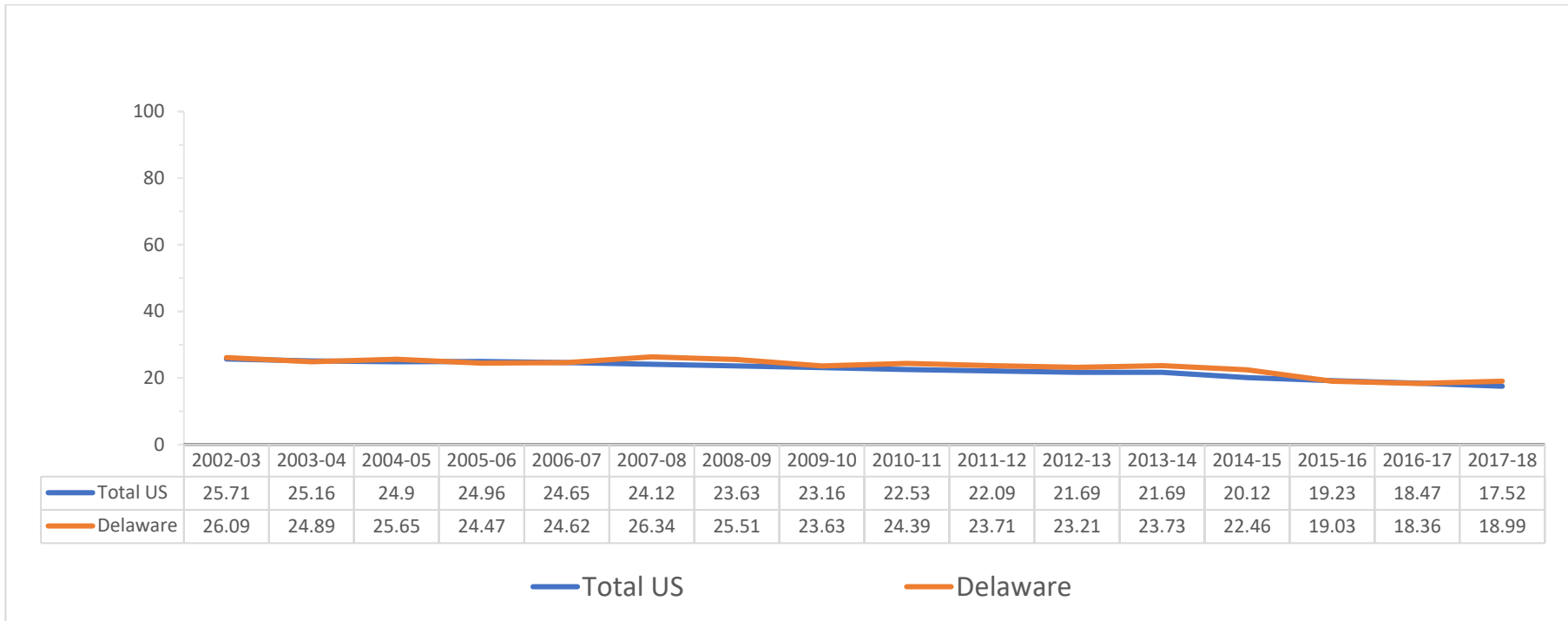


Figure 52: Trends in cigarette use, past-month, national & Del., ages 12+

Source: [“National Survey on Drug Use and Health: Comparison of 2016-2017 and 2017-2018 Population Percentages \(50 States and District of Columbia\).” 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)

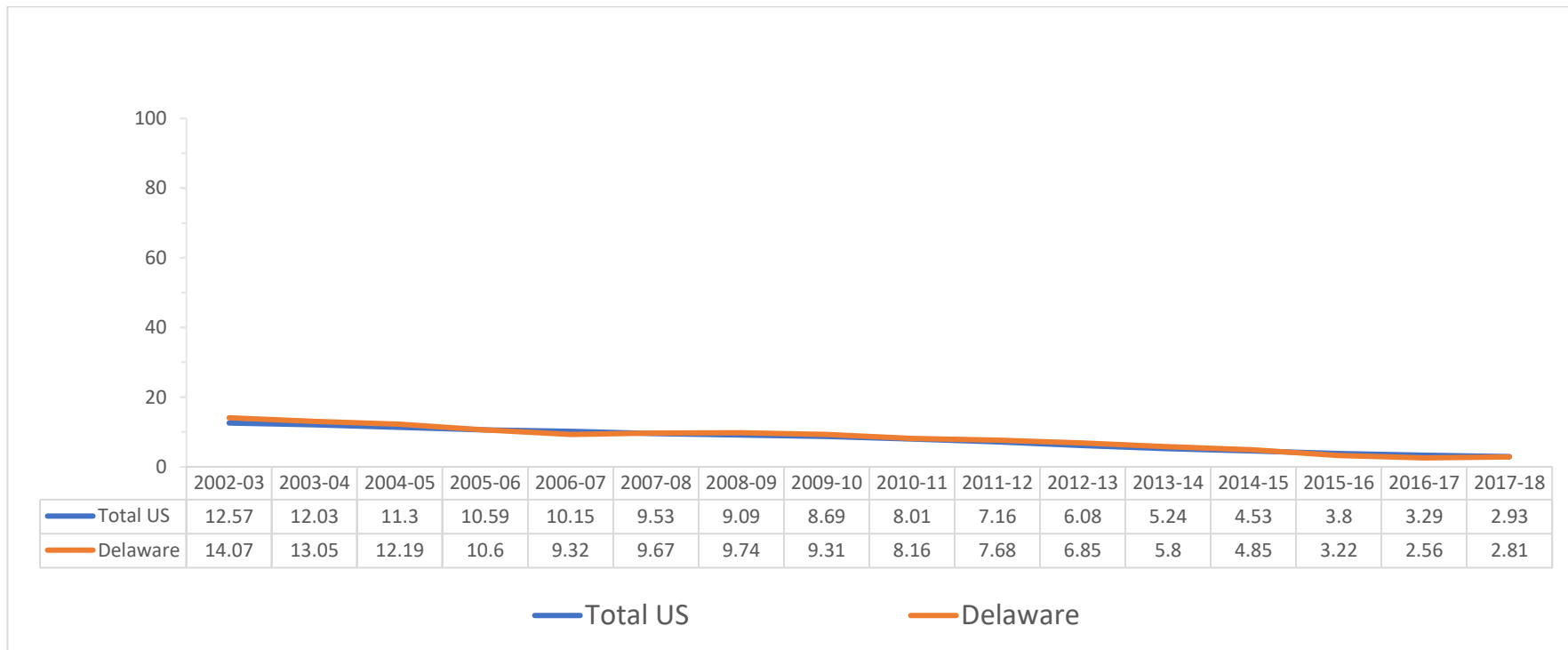


Figure 53: Trends in cigarette use, past-month, national & Del., ages 12-17

Source: [“National Survey on Drug Use and Health: Comparison of 2016-2017 and 2017-2018 Population Percentages \(50 States and District of Columbia\).” Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.](#)

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Monitoring the Future, 1999-2019

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

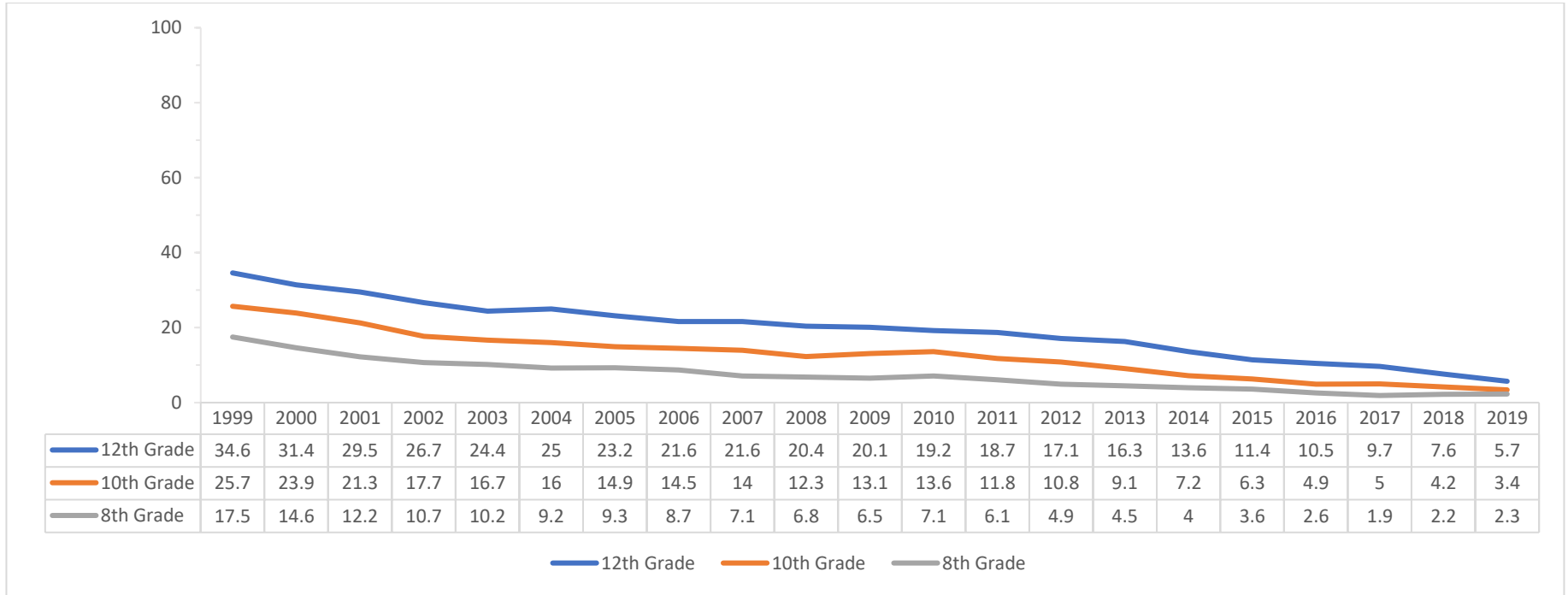


Figure 54: Trends in cigarette use, past month, national, 8th, 10th, and 12th grades

Source: [Monitoring the Future, National Survey Results on Drug Use, 1975-2018. University of Michigan.](#)

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Delaware School Survey, 2002-2019
Students' Perceptions of Great Risks
from Smoking a Pack of Cigarettes Daily
(in percentages)

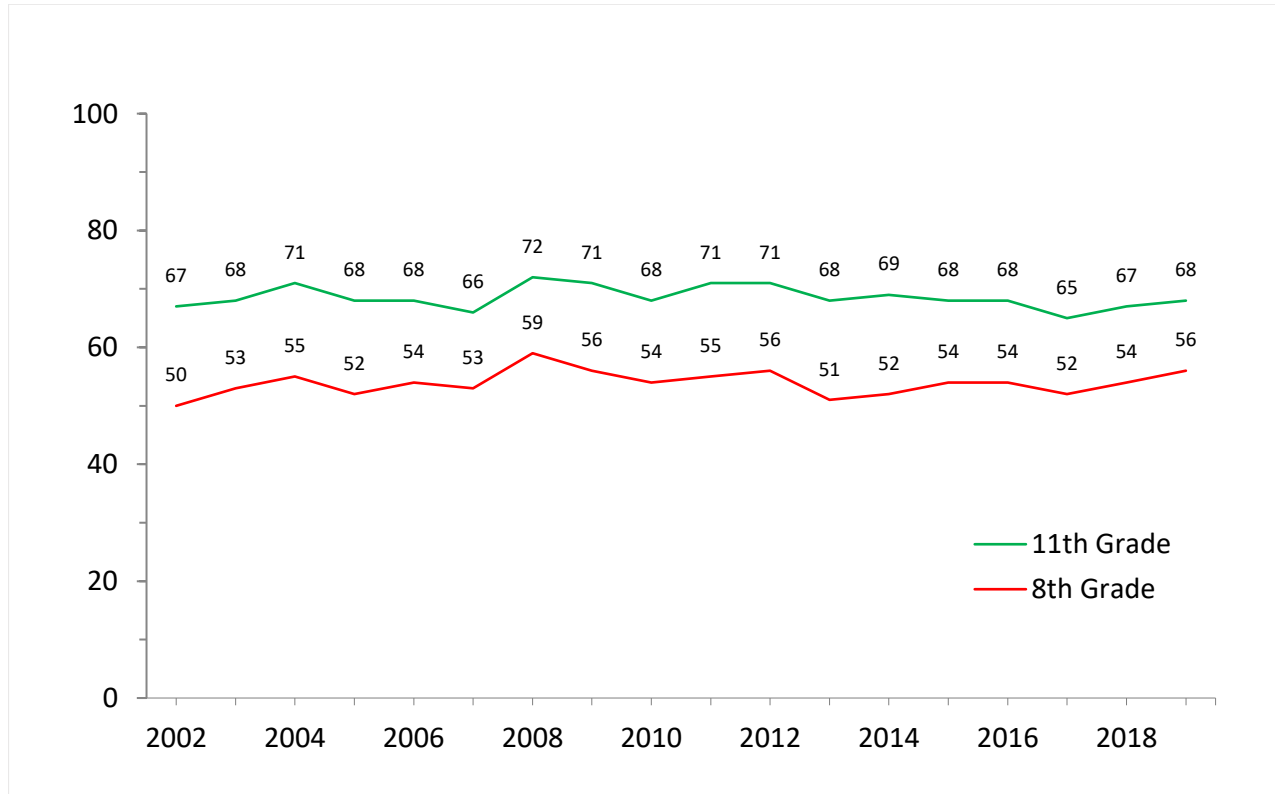


Figure 55: Trends in perceived great risk from smoking pack daily

Source: [Center for Drug & Health Studies. \(2019\). 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, 2016-2017 and 2017-2018
(in percentages)^a

State	AGE GROUP											
	12 or Older			12-17			18-25			26 or Older		
	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b
Total U.S.	72.21	71.73	.013	68.24	66.27	.000	67.57	67.04	.107	73.44	73.11	.166
Northeast	74.26	74.17	.800	71.19	68.78	.000	69.24	69.14	.871	75.39	75.51	.774
Delaware	71.90	71.54	.715	69.23	67.52	.279	70.28	70.30	.989	72.42	72.14	.818

Figure 56: 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 2016-2017 and 2017-2018 population percentages

Source: ["National Survey on Drug Use and Health: Comparison of 2016-2017 and 2017-2018 Population Percentages \(50 States and District of Columbia\)."](#) Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.

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3. Alcohol

National Overview

There are serious public health and social costs that stem from alcohol misuse and addiction. One national study found that approximately \$250 billion in costs were associated with excessive drinking in the U.S. in 2010 (Sacks et al., 2015). More recently, a report by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) found that nearly one million people had died of alcohol-related causes between 1999 and 2017 in the U.S. ([National Institutes of Health, 2020](#)). Frequent drinking can lead to alcohol use disorder, which can reduce daily functioning, impair social relationships, and lead to critical health outcomes. Data from the National Survey of Drug Use and Health (NSDUH) indicate that approximately 5.4% of people age 12 and over in the U.S. fit the criteria for an alcohol use disorder in 2018 (Substance Abuse and Mental Health Services Administration [SAMHSA], 2019). Long-term alcohol use has been linked to a number of chronic and deadly conditions, including diseases of the liver and pancreas, various types of cancers, and risk of stroke (Rehm et al., 2009). Infants of mothers who drink during pregnancy are at great risk for developing Fetal Alcohol Spectrum Disorder which can lead to severe complications including lifelong developmental delays and disabilities (Streissguth et al., 2004). Data from the NSDUH show that adult reports of past-month use have remained relatively stable over the past six years. High school youth reports of past-month use declined from 50% in 1999 to 29.2% in 2019 (National Youth Risk Behavior Survey, Centers for Disease Control and Prevention, n.d.). While the downward trend of high school students' past-month use is heartening, alcohol misuse and dependency continue to be a major public health concern.

Delaware Overview

Understandably, a great deal of attention in recent years has focused on opioid misuse. However, among students, alcohol remains the most commonly reported substance used. According to the 2019 Delaware School Survey (DSS), 24% of 11th graders and 8% of 8th graders report that they drank alcohol in the past month. Though alcohol use among Delaware students declined over the past five years, mirroring national trends, student surveys show that too many students still do not adequately understand the risks involved with alcohol misuse. Only 50% of 11th graders surveyed indicate that they believe there is a “great risk” in binge drinking, and 8% report binge drinking within the past two weeks. In the same survey, 5% report drinking and driving within the past month, while 14% report drinking and driving at some time in their lifetime. While high school rates of binge drinking rates have declined across both the DSS and YRBS over the past 20 years, both surveys indicate a slight uptick in the most recent findings. Nearly one in five middle school students who responded to the 2019 Youth Risk Behavior Survey (YRBS) indicated that they had used alcohol at least once in their lifetime, with Hispanic/Latino/a/x youth reporting higher rates.

Early intervention can reduce some of the risks associated with alcohol misuse. DSS data show that the average age of onset for drinking among students who drink is 12.6 years of age for 8th grade students and 15.1 years of age for 11th grade students. The use of alcohol at an early age has been linked to future alcohol dependence and a greater likelihood of using illicit substances later in life (Barry et al., 2016).

Alcohol consumption also remains prevalent among Delaware adults with more than half reporting current use, although data from the Delaware Behavioral Risk Factor Surveillance System (BRFSS) show an overall decrease in adult drinking since 2011 from 59.5% to 54.3% in 2018. Data from the National Survey of Drug Use and Health (NSDUH) indicate that drinking rates among Delaware adults are comparable to national rates. Delaware adults between the ages of 18-25 have the highest rates of binge drinking with approximately 37% in this age range reporting binge drinking within the past month on the NSDUH. Sixteen percent of all adults in Delaware responding to the 2018 BRFSS report binge drinking in the past 30 days, and 6.4% meet the criteria for heavy drinking (consuming 14 drinks a week for men and seven drinks a week for women). In 2019, the Treatment Episode Data Set (TEDS) indicates that alcohol was the substance upon admission among 10.7 % of clients receiving publicly funded treatment in Delaware, and it was identified with a secondary substance in another 8.2% of admissions (Figure 135 of this report).

Even a one-time excessive use of alcohol can have dangerous repercussions. In 2019, more than one-third of fatal traffic crashes and 4% of all crashes in Delaware were alcohol-related, and 2,657 driving under the influence (DUI) arrests were made statewide (Delaware State Police Delaware Information and Analysis Center, 2020). Binge drinking, in particular, is associated with an increased risk of victimization. Data from the 2018 College Risk Behavior Survey show that approximately one out of five University of Delaware students who report that they frequently binge drink alcohol (consume five or more drinks in a single sitting) also report being a victim of assault, compared to approximately one in 16 students who report abstaining from alcohol use. Students who report binge drinking also report higher rates of sexual assault (Center for Drug and Health Studies, 2017). Nationally, researchers have consistently shown a clear association between alcohol use and intimate partner violence (Deveries et al., 2013), and this is also true in Delaware. For example, data from the 2017 Delaware YRBS found experiences of teen dating violence to be correlated with higher rates of drinking among high school students (Delaware State Epidemiological Report, 2019). However, it is important to note that this type of survey data does not allow us to draw conclusions that binge drinking causes victimization or that being victimized causes binge or frequent drinking; it simply shows that students who experience one are more likely to experience the other.

Data in Action: Alcohol during the COVID-19 Pandemic

In response to the global coronavirus pandemic that began in early 2020, by mid-March local and state governments across the U.S. began issuing stay-at-home orders and mandating the temporary closure of non-essential businesses as well as imposing restrictions on gathering sizes. In every state except for Pennsylvania, liquor stores were considered as essential businesses and allowed to remain open during the initial shutdowns. Medical professionals and harm reduction experts argue that keeping alcohol available during the pandemic is important so that people with Alcohol Use Disorders (AUD) who cannot otherwise access treatment are not forced to abruptly quit drinking, which could cause dangerous withdrawal symptoms and potentially overburden already strained healthcare systems (Tiako and Priest, 2020). As restaurants and bars were closed to dine-in service and people prepared to stay at home for an unknown period of time, retail sales of alcohol spiked across the U.S (Bremner, 2020; Micallef, 2020). Many states, including Delaware, made exceptions during the pandemic that allowed restaurants serving carry out meals to also sell alcoholic beverages to-go (Cormier, 2020).

We do not yet know the long-term impacts of some of these policy changes regarding alcohol sales, and so far, there is limited data on how actual consumption of alcohol has changed in this context. Some experts are concerned that conditions of the pandemic may trigger riskier drinking habits as formerly social drinkers are now drinking at home alone or to cope with stress and uncertainty (Smith, 2020). Others suggest that many are drinking less because they are no longer attending social gatherings where they would normally drink alcohol (Furnari, 2020). The World Health Organization recommended limiting or even eliminating alcohol use entirely during the pandemic, as alcohol can weaken the immune system and contribute to riskier decision-making (WHO, 2020). Data collected by researchers with RTI (Barbosa, Cowell, and Dowd, 2020) that surveyed people about their drinking habits in February 2020, prior to the pandemic and government-issued stay-at-home orders in U.S. states, and then again in April, found that overall drinking had increased from pre- to post-pandemic. However, not all adults have increased their drinking. A majority of those surveyed either drank at the same levels in April as they did in February or drank significantly less. The overall increases in drinking were driven by a minority of respondents who substantially increased their alcohol consumption after the onset of the pandemic, particularly women and people with children.

National Survey on Drug Use and Health
Alcohol Use in Delaware, by Age Group, 2017-2018
(annual average percentages)

Measure	AGE GROUP				12-20 ^c
	Total 12 or Older	12-17	18-25	26 or Older	
ALCOHOL					
Past-Month Alcohol Use	52.91	9.43	56.41	57.02	17.72
Past-Month Binge Alcohol Use ^b	23.48	4.87	37.25	23.46	10.20
Perceived Great Risk of Drinking 5 or More Drinks Once or Twice a Week	42.31	43.34	38.30	42.78	--

Figure 57: Alcohol use in Delaware by age group

Notes:

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

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

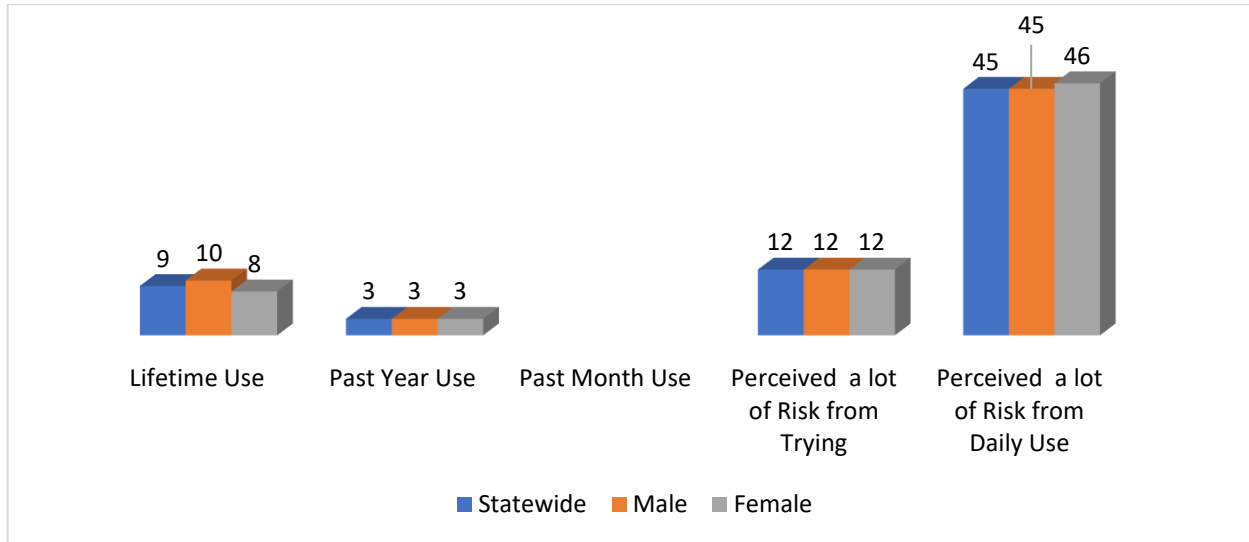
^b Binge Alcohol Use is defined as drinking five or more drinks (for males) or four or more drinks (for females) on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least one day in the past 30 days. In 2015, the definition for females changed from five to four drinks

^c Underage drinking is defined for persons aged 12 to 20

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](#)

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2019 Delaware School Survey Alcohol Use among Delaware 5th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use	Perceived "A Lot of Risk" from:	
				TRYING	DAILY USE
Statewide	9	3	-	12	45
Male	10*	3*	-	12*	45*
Female	8*	3*	-	12*	46*

Figure 58: Alcohol use, 5th graders

Notes:

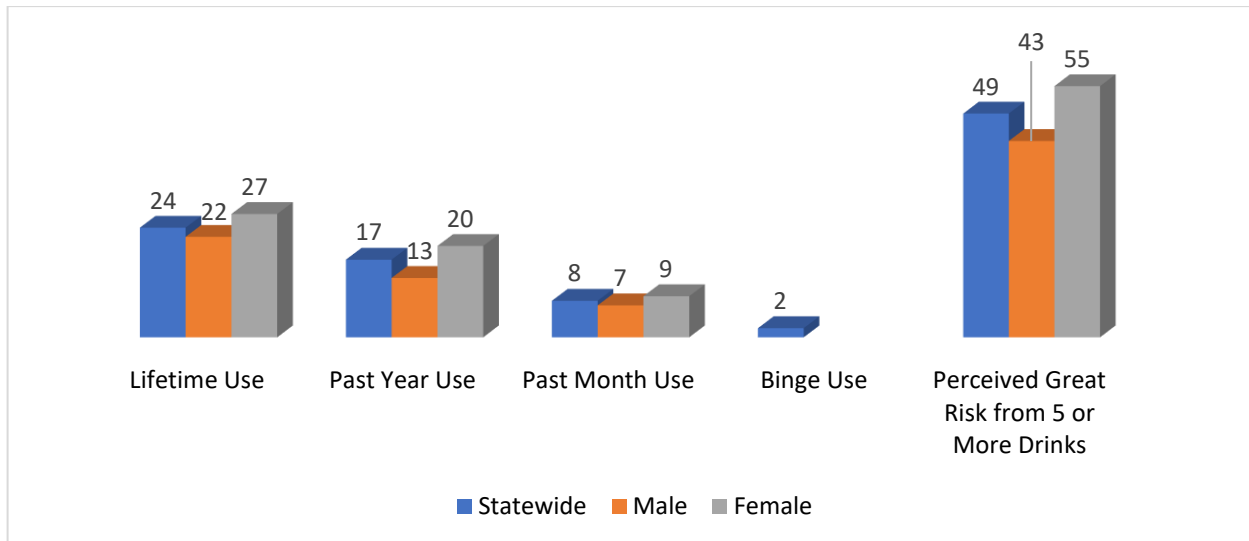
"-" indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: 5th Grade \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware School Survey Alcohol Use among Delaware 8th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use	Binge Use ^a	Perceived Great Risk from 5 or More Drinks
Statewide	24	17	8	2	49
Male	22	13	7*	-	43
Female	27	20	9*	-	55

Figure 59: Alcohol use, 8th graders

Notes:

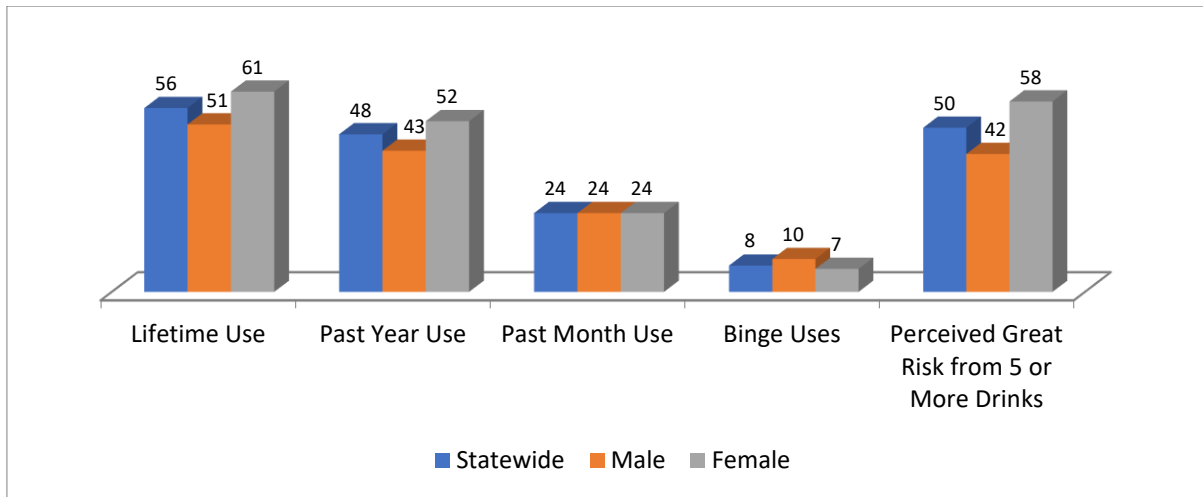
^a Binge drinking defined as four or more drinks of alcohol in a row for female students and five or more drinks of alcohol in a row for male students in the past two weeks

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware School Survey Alcohol Use among Delaware 11th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use	Binge Use ^a	Perceived Great Risk from 5 or More Drinks
Statewide	56	48	24	8	50
Male	51	43	24*	10	42
Female	61	52	24*	7	58

Figure 60: Alcohol use, 11th graders

Notes:

^a Binge drinking defined as four or more drinks of alcohol in a row for female students and five or more drinks of alcohol in a row for male students in the past two weeks

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Middle School Students, Past Month Drinking and Age of Onset (in percentages)

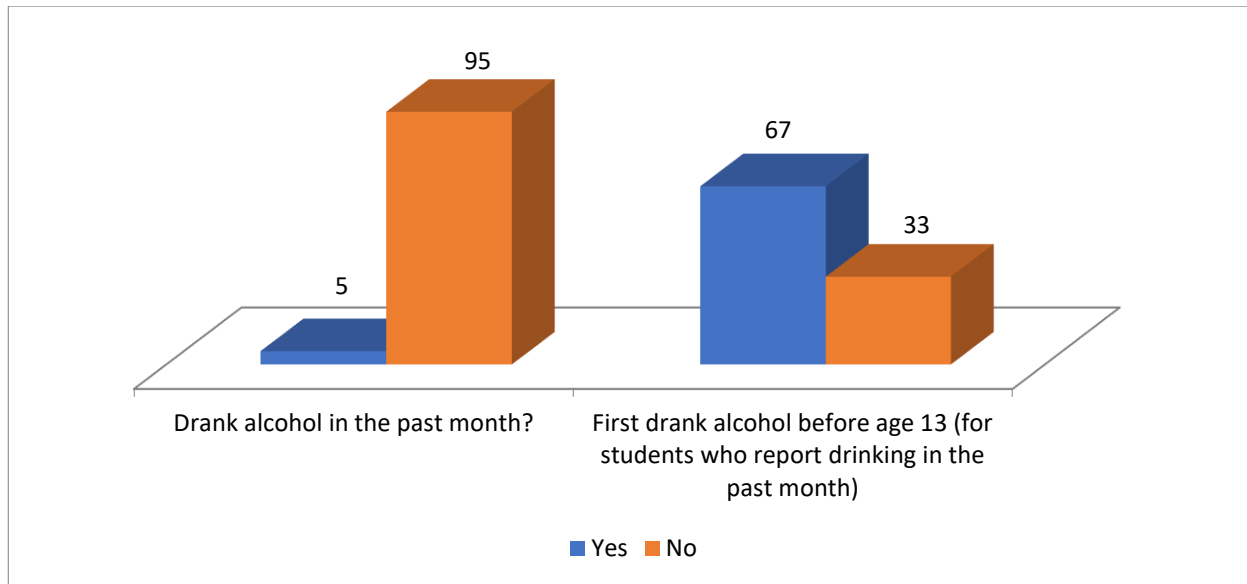


Figure 61: Past month alcohol use and age of onset, MS

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

2019 Delaware School Survey Average Age of Onset for Alcohol Use

8 th Grade	11 th Grade
12.6 years	15.1 years

Figure 62: Average age of onset of alcohol use, 8th and 11th grades

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey

Middle School Students Who Report Ever Drinking Alcohol (in percentages)

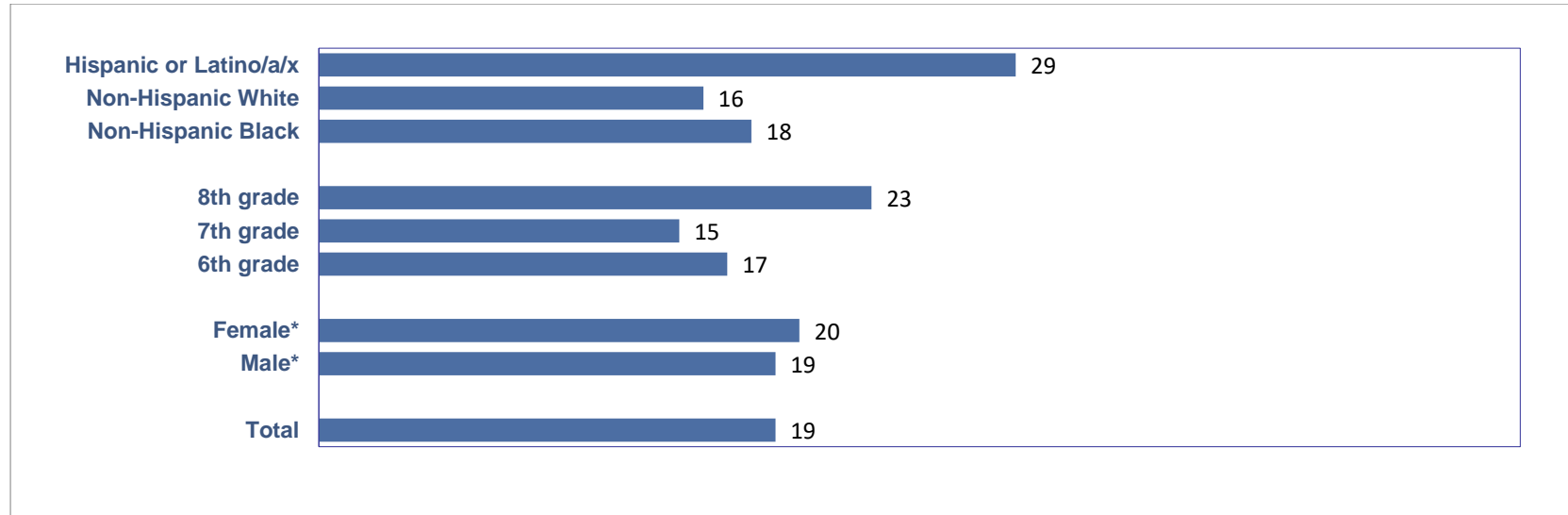


Figure 63: Lifetime alcohol use, by sex, grade, and race/ethnicity, MS

Notes:

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey

High School Students Who Had at Least One Drink of Alcohol on One or More of the Past 30 Days (in percentages)

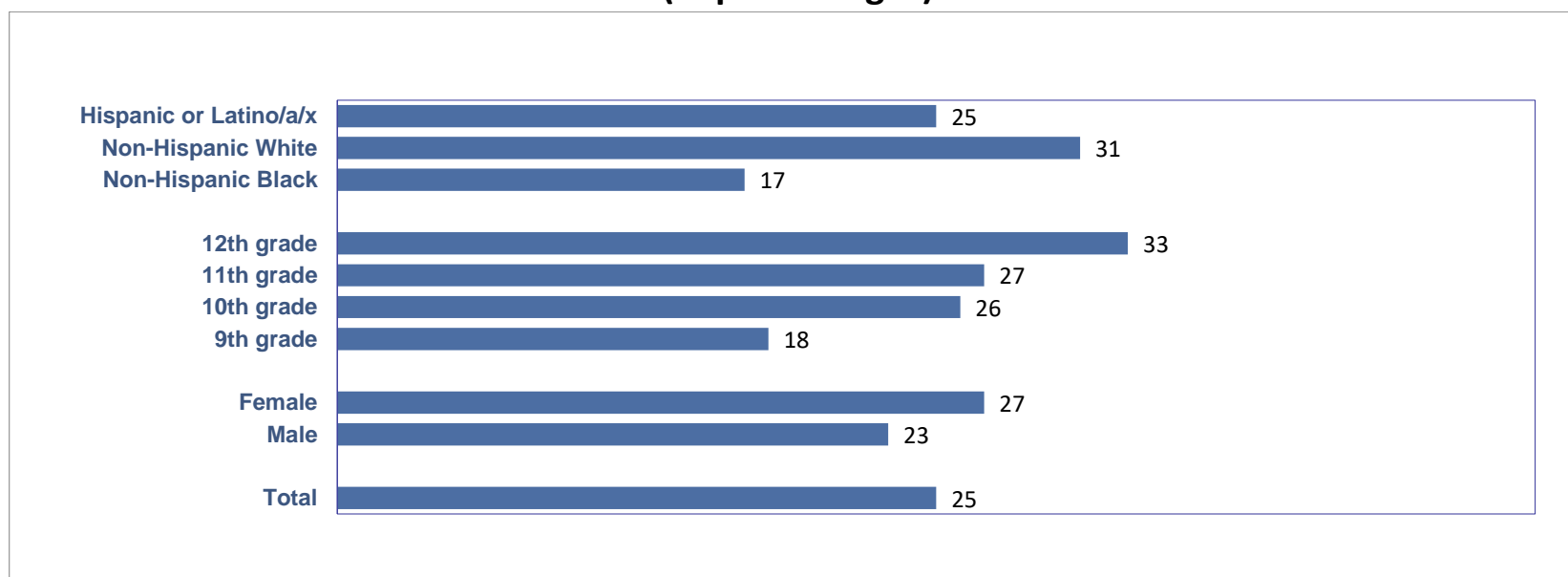


Figure 64: Alcohol use, at least 1 drink of alcohol on 1+ days in past 30 days, HS

Notes:

Unless otherwise noted, all estimates are statically significant at the $p < .05$ level.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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**2019 Delaware Youth Risk Behavior Survey
High School Students Who Reported Binge Drinking^a
on One or More of the Past 30 Days
(in percentages)**

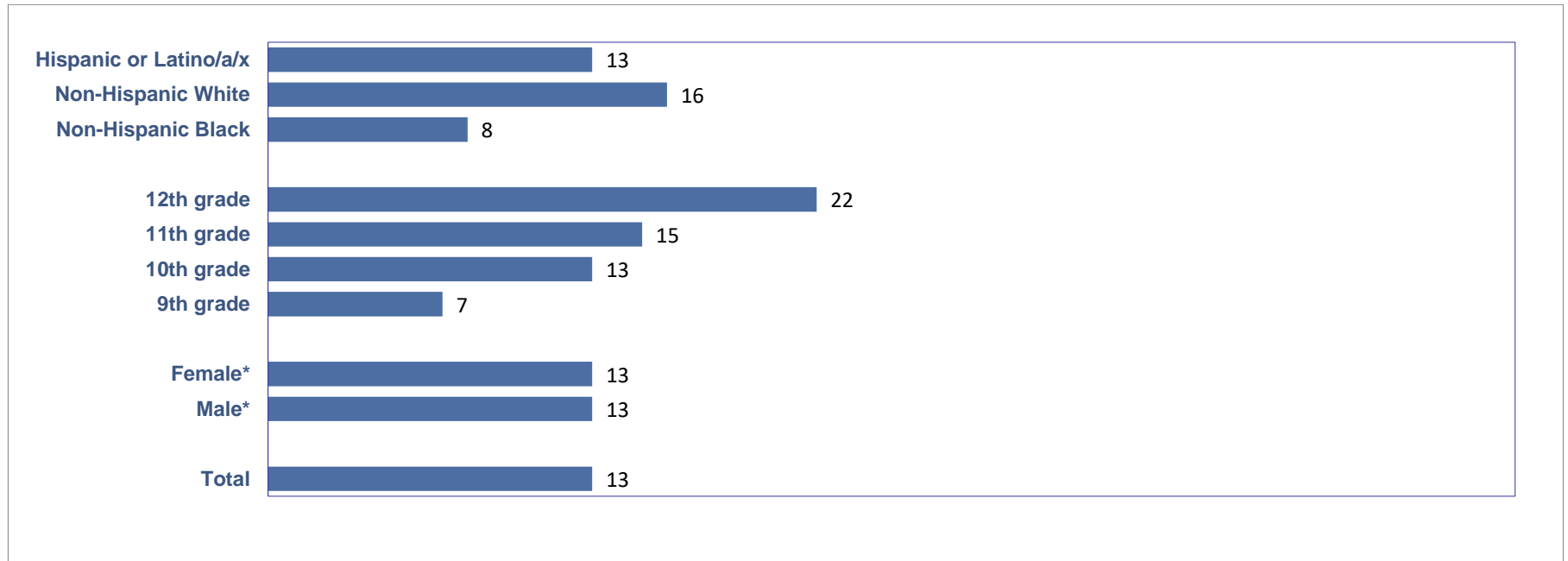


Figure 65: Alcohol use, binge drinking 1+ days in past 30 days, HS

Notes:

^a Binge drinking defined as four or more drinks of alcohol in a row for female students and five or more drinks of alcohol in a row for male students in the past two weeks

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey High School Students Who Used Alcohol before Age 13 (in percentages)

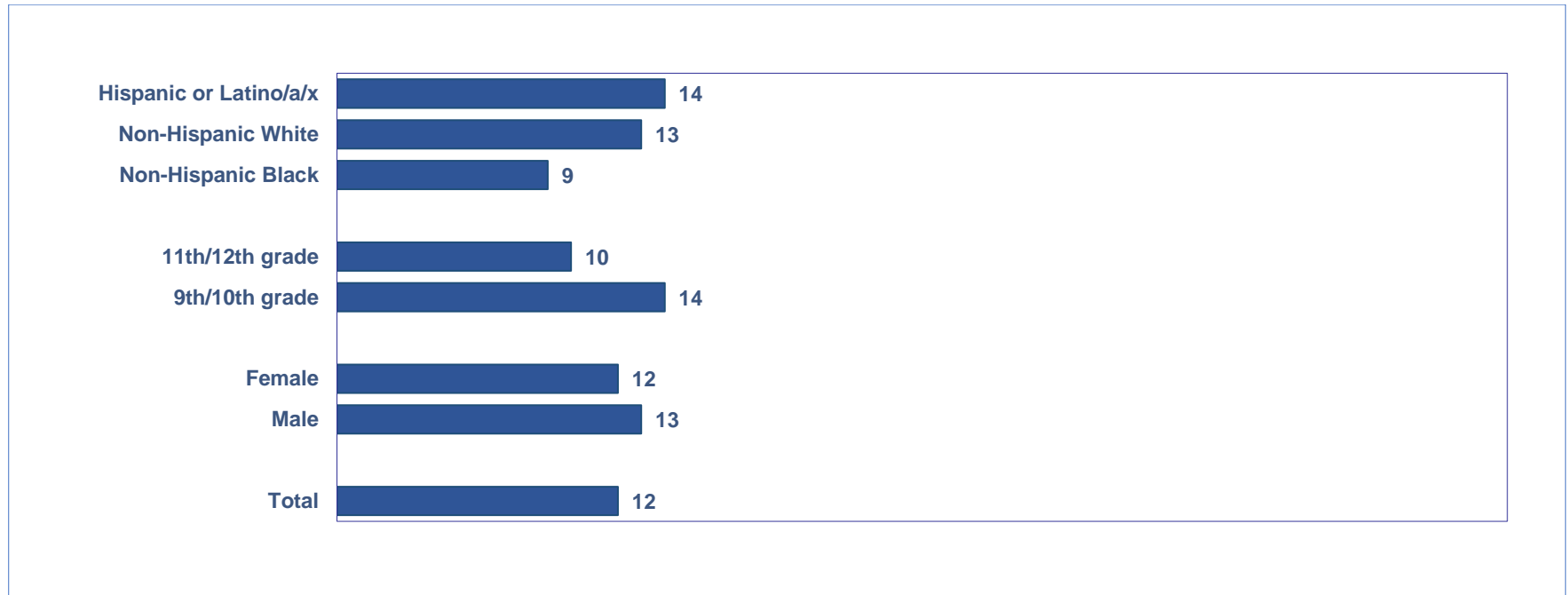


Figure 66: Alcohol use before age 13, HS

Notes:

Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2018 Delaware Behavior Risk Factor Surveillance System (BRFSS) Alcohol Use by Sex Among Delaware Adults

Sex	Current Drinking	Binge Drinking	Heavy Drinking
Overall	54.3%	16.4%	6.4%
Male	59.8%	21.2%	6.9%
Female	49.2%	11.9%	6.0%

Figure 67: Alcohol use by sex, DE adults

Alcohol Use by Race and Ethnicity Among Delaware Adults

Race/Ethnicity	Current Drinking	Binge Drinking	Heavy Drinking
Overall	54.3%	16.4%	6.4%
White, non-Hispanic	57.8%	17.3%	7.0%
Black, non-Hispanic	46.8%	13.9%	6.7%
Hispanic	45.0%	17.1%	-
American Indian or Alaskan Native, non-Hispanic	40.1%	-	-

Figure 68: Alcohol use by race and ethnicity, DE adults

Note: Prevalence estimate not available if the unweighted sample size for the denominator was < 50 or the Relative Standard Error (RSE) is > 0.3 or if the state did not collect data for that calendar year.

Current drinking is defined by the BRFSS as at least one drink of alcohol within the past 30 days.

Binge drinking is defined in the BRFSS as 4 or more drinks for a woman or 5 or more drinks for a man on an occasion during the past 30 days.

Heavy drinking is defined by the BRFSS as more than 7 drinks per week for women or more than 14 drinks per week for men.

Source: ["2018 Delaware Behavior Risk Factor Surveillance System." BRFSS Prevalence & Trends Data, Centers for Disease Control and Prevention.](#)

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2018 Delaware Behavior Risk Factor Surveillance System (BRFSS) Alcohol Use by Educational Attainment Among Delaware Adults

Educational Level	Current Drinking	Binge Drinking	Heavy Drinking
Overall	54.3%	16.4%	6.4%
Less Than High School	29.3%	11.1%	-%
High School / G.E.D.	47.7%	18.1%	6.4%
Some Post-H.S.	57.5%	16.6%	6.8%
College Graduate	68.1%	16.4%	6.7%

Figure 69: Alcohol use by educational attainment, DE adults

Alcohol Use by Age Group Among Delaware Adults

Age Group	Current Drinking	Binge Drinking	Heavy Drinking
Overall	54.3%	16.4%	6.4%
18 - 24	52.6%	26.6%	5.3
25 - 34	62.0%	24.3%	8.8%
35 - 44	60.2%	24.5%	8.6%
45 - 54	56.0%	15.8%	5.8%
55 - 64	50.2%	11.8%	6.5%
65 and Older	47.9%	4.8%	4.2%

Figure 70: Alcohol use by age group, DE adults

Note: Prevalence estimate not available if the unweighted sample size for the denominator was < 50 or the Relative Standard Error (RSE) is > 0.3 or if the state did not collect data for that calendar year.

Current drinking is defined by the BRFSS as at least one drink of alcohol within the past 30 days.

Binge drinking is defined in the BRFSS as 4 or more drinks for a woman or 5 or more drinks for a man on an occasion during the past 30 days.

Heavy drinking is defined by the BRFSS as more than 7 drinks per week for women or more than 14 drinks per week for men.

Source: ["2018 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 Delaware Students' Self-Reported Past Month Use of Alcohol Use by Grade, 1999-Present (in percentages)

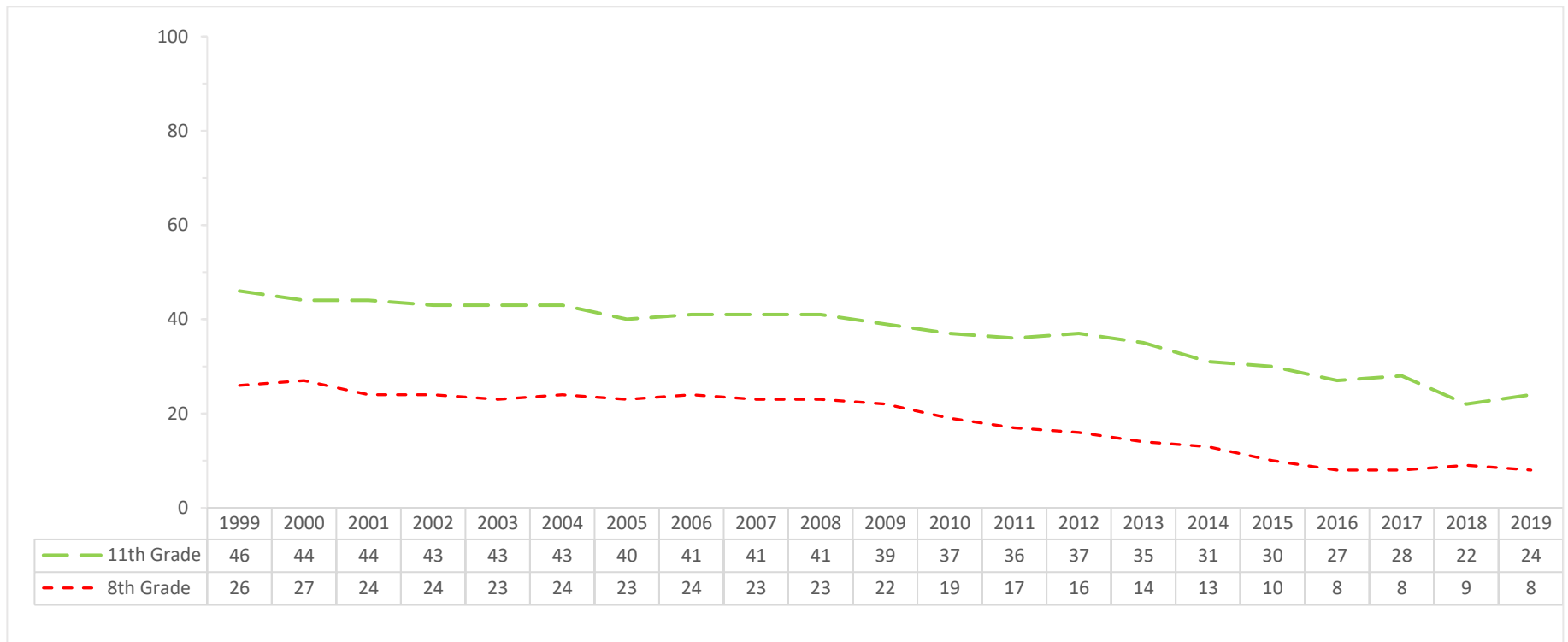


Figure 71: Trends in past month alcohol use, 8th and 11th graders

Note: Prevalence estimates for past month alcohol use by 5th graders were too small (n<30) to report.

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Delaware School Survey

Trends in Students' Self-Reported Binge Drinking^a, 2002-2019 (in percentages)

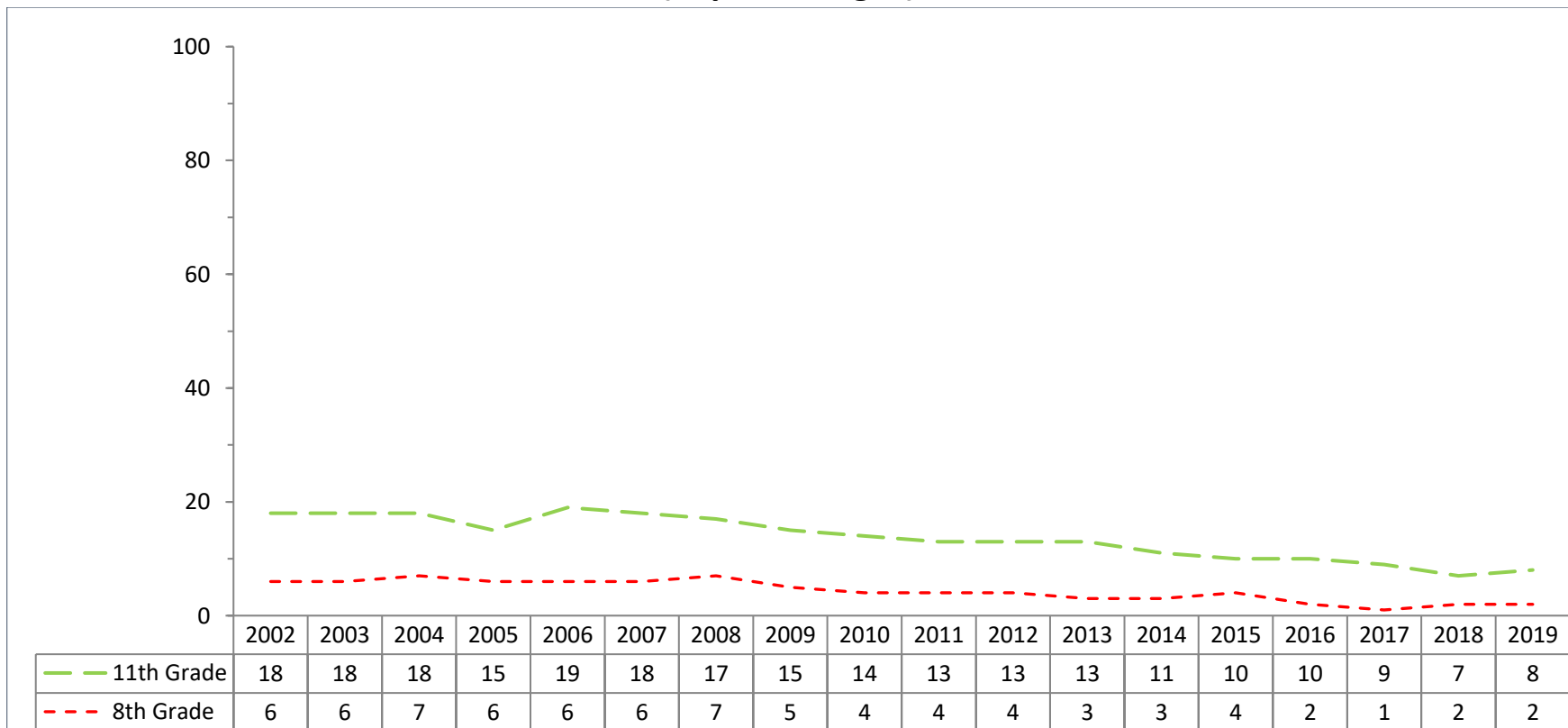


Figure 72: Trends in binge drinking, 8th and 11th graders

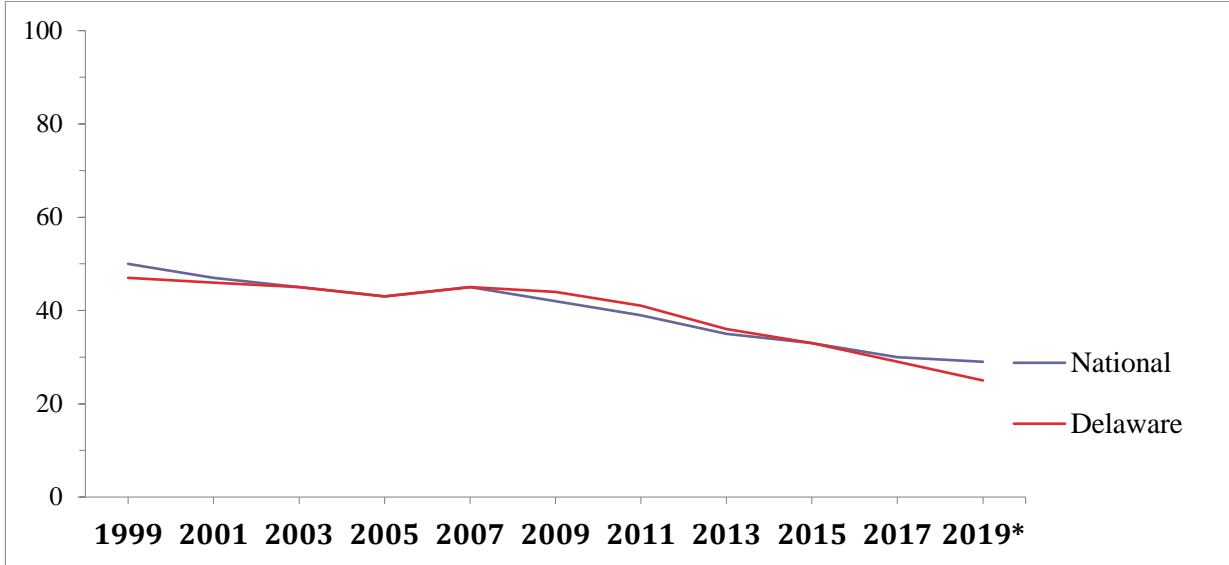
Note:

^a Binge drinking defined as 4 or more drinks of alcohol in a row for female students and 5 or more drinks of alcohol in a row for male students in the past two weeks (Previously binge use was reported as 3 or more drinks)

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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



Year	National	Delaware
1999	50	47
2001	47	46
2003	45	45
2005	43	43
2007	45	45
2009	42	44
2011	39	41
2013	35	36
2015	33	33
2017	30	29
2019*	29	25

Figure 73: Trends in alcohol use, past-month, HS

Notes: *National data is weighted; Delaware data is weighted except for in 2019.

Sources: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

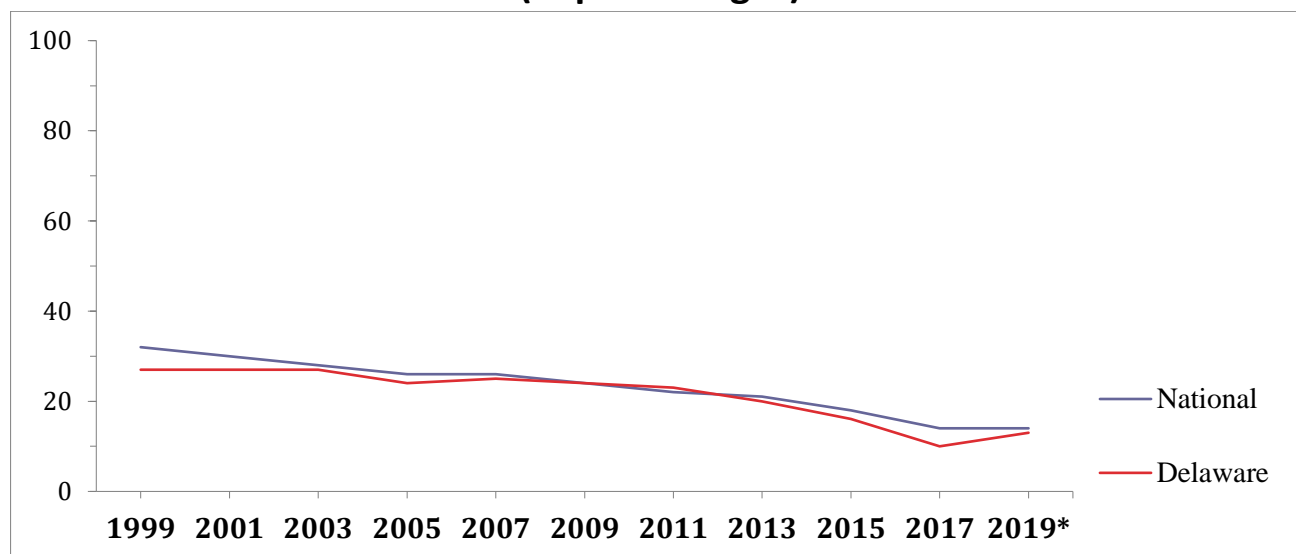
[Centers for Disease Control and Prevention. \(2019\). National Youth Risk Behavior Survey: High School.](#)

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Youth Risk Behavior Survey

National and Delaware

Students' Past Month Binge Drinking^a, 1999-2019 (in percentages)



Year	National	Delaware
1999	32	27
2001	30	27
2003	28	27
2005	26	24
2007	26	25
2009	24	24
2011	22	23
2013	21	20
2015	18	16
2017	14	10
2019*	14	14

Figure 74: Alcohol use, binge drinking, national and Delaware, past month, HS

Note:

*National YRBS data is weighted, Delaware data was unweighted in 2019

^aBinge drinking is defined by the YRBS as 5 or more drinks at a time for males and 4 or more drinks at a time for females. Prior to the 2017 survey, binge drinking was defined as 5 drinks for all genders.

Sources: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

[Centers for Disease Control and Prevention. \(2019\). National Youth Risk Behavior Survey: High School.](#)

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National Survey on Drug Use and Health
Past Month Alcohol Use by Age Group and Region
2016-2017 and 2017-2018
(in percentages)^a

Age Group (Years)												
State	12 or Older			12-17			18-25			26 or Older		
	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b
Total U.S.	51.21	51.37	.495	9.54	9.43	.568	56.74	55.73	.012	55.22	55.57	.228
Northeast	56.44	55.62	.053	10.64	10.37	.451	63.24	61.60	.077	60.30	59.48	.107
Delaware	51.38	52.91	.226	8.38	9.43	.235	54.78	56.41	.372	55.51	57.02	.332

Figure 75: Alcohol use, past month, by age group and region

Notes:

^a Estimates are based on a survey-weighted hierarchical Bayes estimation approach

^b *p* value: Bayes significance levels for the null hypothesis of no change between the 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](#)

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National Survey on Drug Use and Health
Past-Month Binge* Alcohol Use by Age Group and Region
2016-2017 and 2017-2018
(in percentages)^a

State	12 or Older			AGE GROUP (Years)								
				12-17			18-25			26 or Older		
	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^c
Total U.S.	24.37	24.49	.512	5.06	4.97	.539	37.62	35.89	.000	24.49	24.95	.048
Northeast	26.45	26.04	.248	5.83	5.45	.142	43.73	41.66	.014	25.92	25.78	.747
Delaware	22.51	23.48	.288	4.30	4.87	.278	37.87	37.25	.724	22.19	23.46	.249

Figure 76: Alcohol use, binge drinking, past month, by age group and region

Notes:

* Binge drinking is defined as drinking 5 or more drinks for males/4 or more drinks for females on an occasion during the past 30 days.

^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](#)

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**National Survey on Drug Use and Health
 Past-Month Alcohol Use and Binge* Alcohol Use
 among Persons Ages 12 to 20, by Region
 2016-2017 and 2017-2018
 (in percentages)^a**

State	Alcohol Use in Past Month			Binge Alcohol Use in Past Month		
	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b
Total U.S.	19.50	19.25	.417	12.00	11.66	.153
Northeast	22.91	22.01	.034	14.94	13.93	.010
Delaware	17.47	17.72	.820	10.75	10.20	.494

Figure 77: Alcohol use, binge drinking, past-month, ages 12-20 by region

Notes:

*Binge Alcohol Use is defined as drinking five or more drinks on the same occasion for males and four or more drinks for females (i.e., at the same time or within a couple hours of each other) on at least 1 day in the past 30 days.

^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](#)

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Monitoring the Future National Trends in Past 30-day Alcohol Use 8th, 10th, and 12th Grade (in percentages)

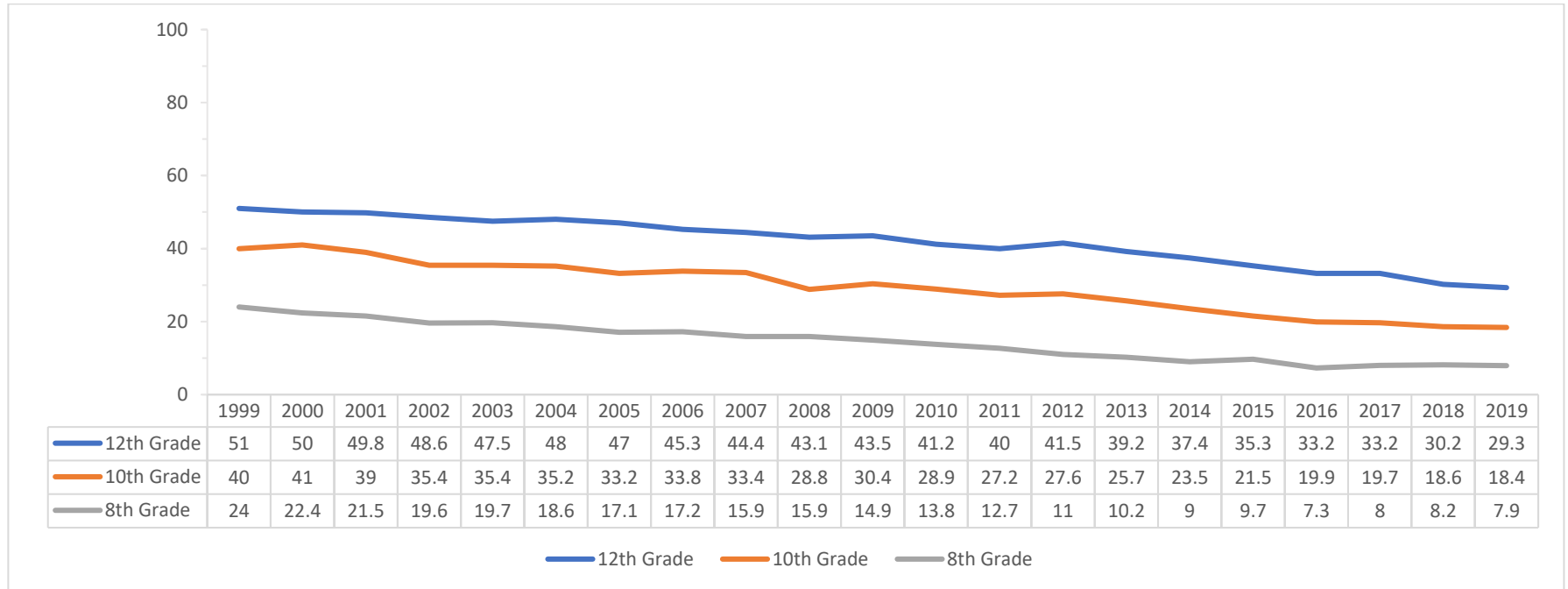


Figure 78: National trends in past 30-day alcohol use, 8th, 10th, and 12th grade

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

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Delaware School Survey, 1999-2019
Students' Perception of a "Lot of Risk" from Drinking Daily, 5th Grade
(in percentages)

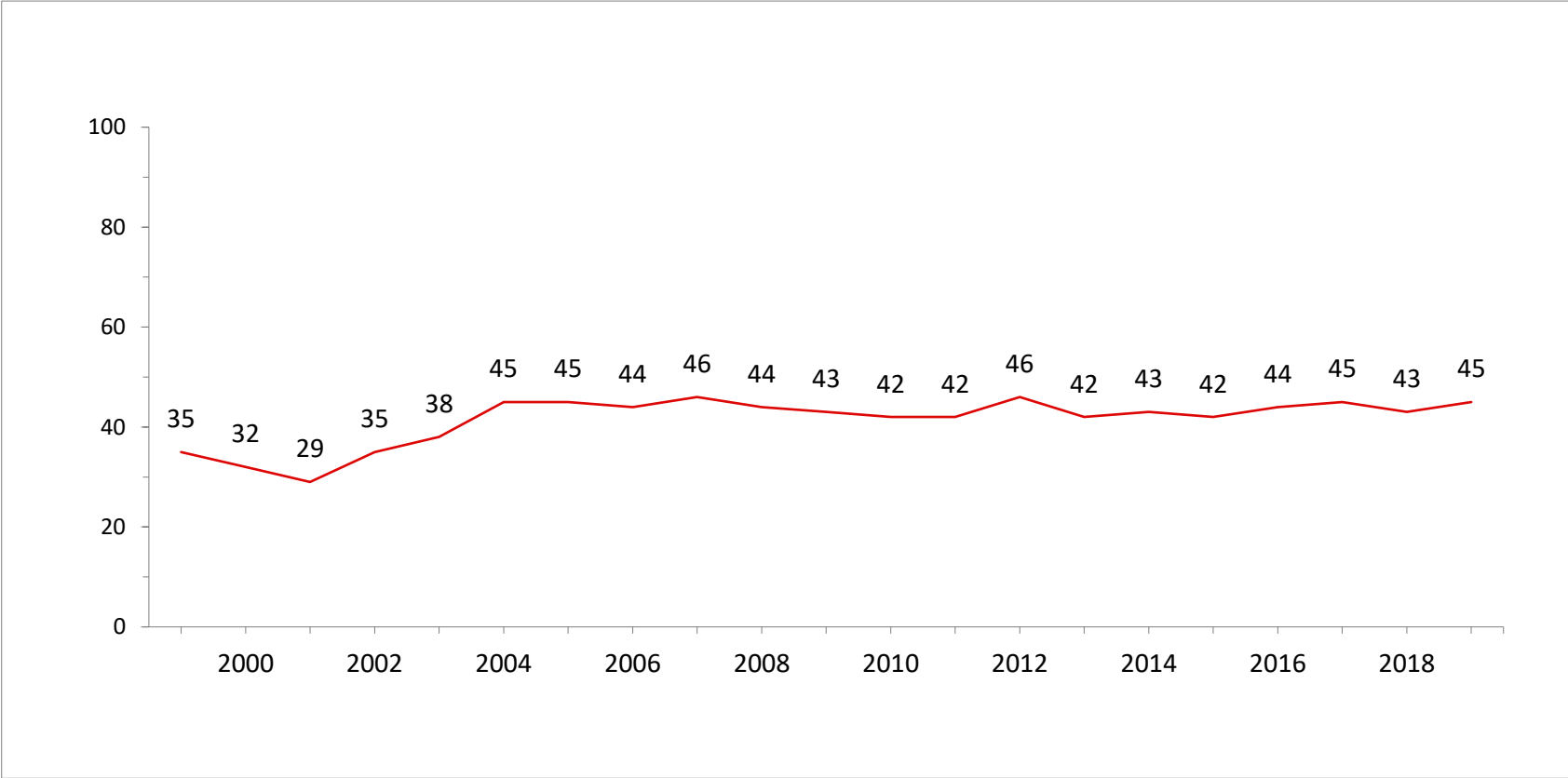


Figure 79: Trends in perception of a "lot of risk" from drinking daily, 5th graders

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: 5th Grade \[Annual Survey\]. University of Delaware.](#)

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Delaware School Survey, 1999-2019

Students' Perception of "Great Risk" from Having 5 or More Drinks Once or Twice a Week (in percentages)

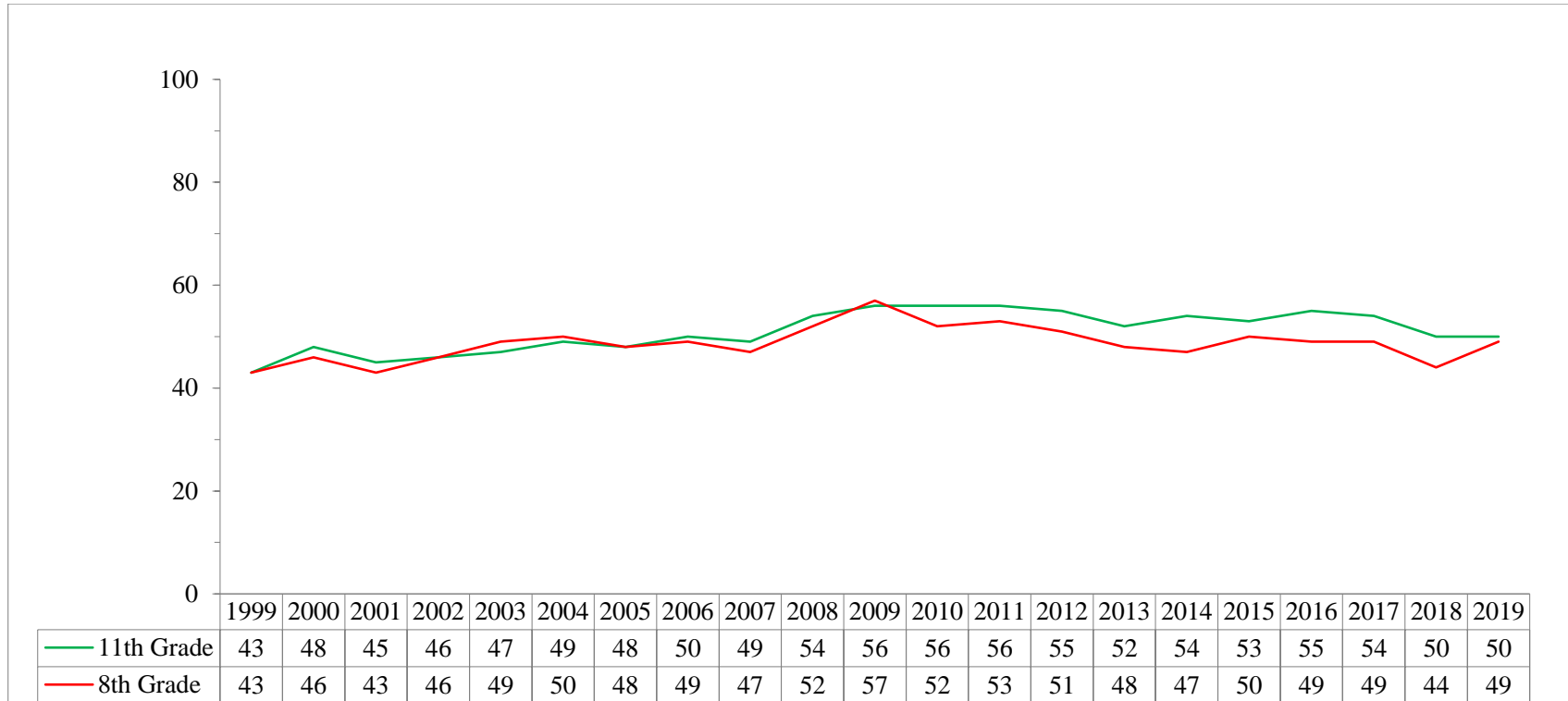


Figure 80: Trends in perception, "great risk" from having 5 or more drinks, 8th & 11th graders

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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National Survey of Drug Use and Health
Perceptions of Great Risk from Having 5 or More Drinks Once or Twice a Week
by Age Group and Region
2016-2017 and 2017-2018
(in percentages)^a

State	12 or Older			AGE GROUP (Years)								
				12-17			18-25			26 or Older		
	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b
Total U.S.	44.50	44.78	.198	43.83	43.39	.218	37.53	37.69	.643	45.72	46.08	.180
Northeast	43.05	43.45	.323	43.83	42.43	.029	34.58	34.70	.863	44.32	44.93	.219
Delaware	43.30	42.31	.400	44.43	43.34	.529	38.59	38.30	.870	43.88	42.78	.448

Figure 81: Perception of great risk from having five or more drinks once or twice a week, age group and region

Notes:

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

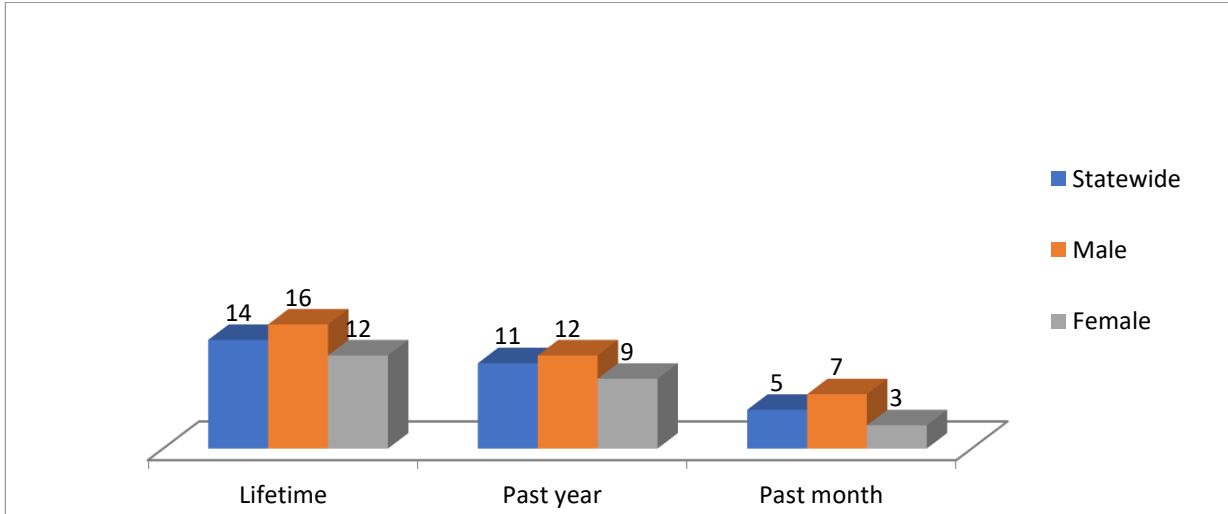
^b p value: Bayes significance levels for the null hypothesis of no change between the 2016-2017 and 2017-2018 population percentages

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](#)

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2019 Delaware School Survey Students' Reported Drinking and Driving among Delaware 11th Graders (in percentages)



	Lifetime	Past-Year	Past-Month
Statewide	14	11	5
Male	16	12	7
Female	12	9	3

Figure 82: Drinking and driving, 11th graders

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey
Middle School Students Who Reporting Riding in a Car
with Someone Who has been Drinking
(in percentages)

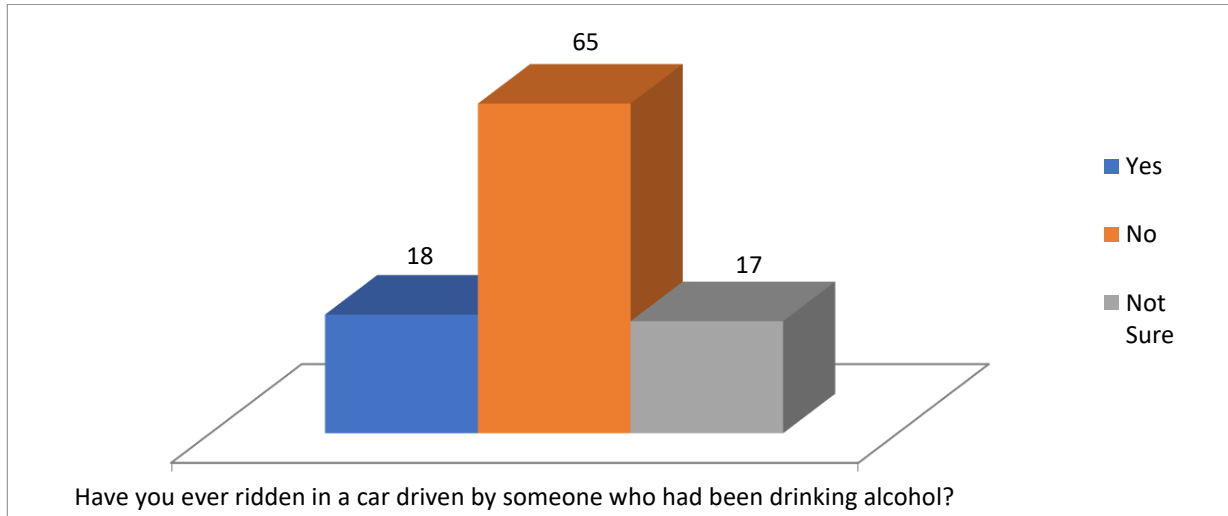


Figure 83: Ever ridden in a car with someone who has been drinking, MS

Note:

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

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Delaware School Survey
Trends in Delaware Students'
Past-Month Reports of Drinking and Driving
among Delaware 11th Graders, 1999-2018
(in percentages)

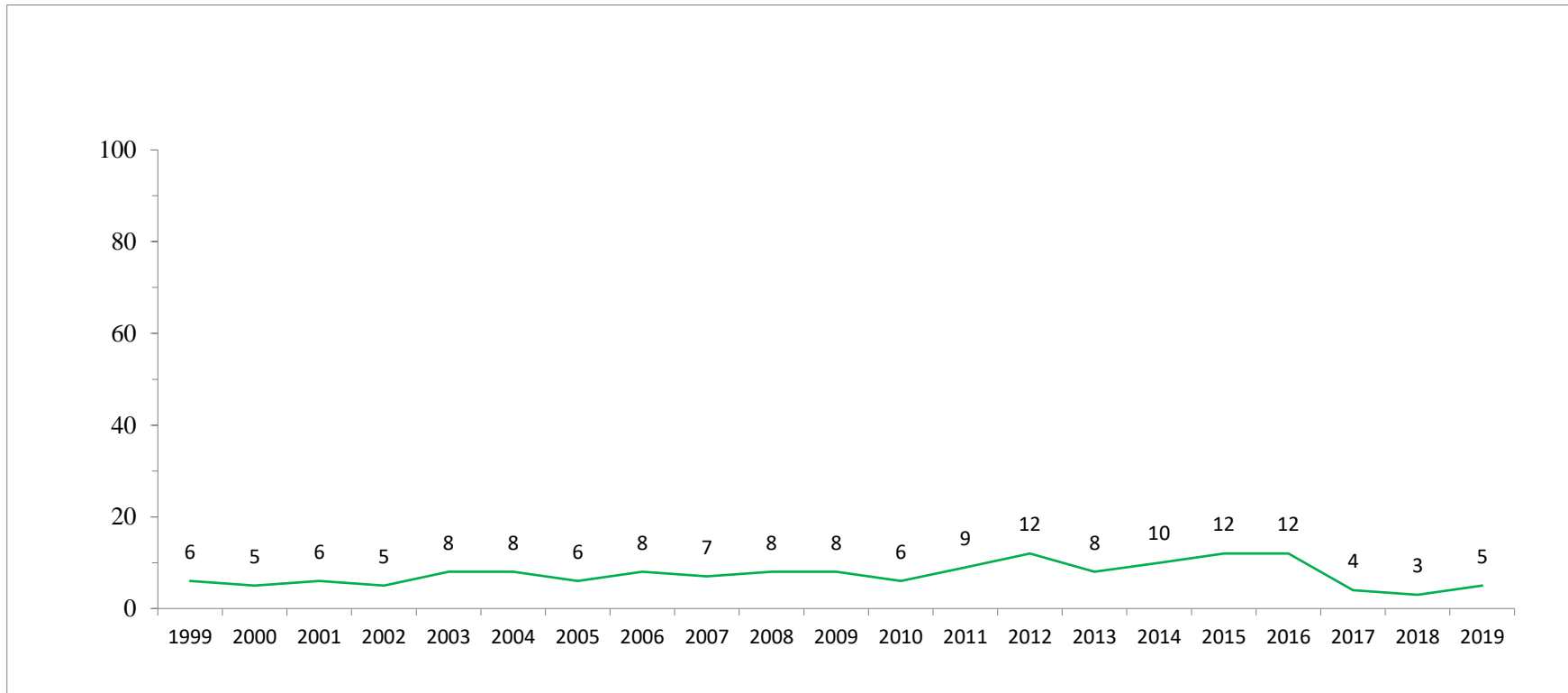


Figure 84: Trends in reported drinking and driving in past month, 11th graders

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Delaware State Police

Driving Under the Influence Arrests, 2019

Age Range	Male	Female	Total
15 and under	1	0	1
16	1	1	2
17	8	1	9
18	15	0	15
19	31	7	38
20	41	6	47
21-24	231	88	319
25-34	695	230	925
35-44	462	114	576
45-54	258	83	341
55-64	220	58	278
65 & older	71	35	106
Total	2034	623	2657

Figure 85: Delaware DUI arrests by age and sex

Source: [Delaware's Annual Traffic Statistical Report, 2019, Delaware State Police, Delaware Information and Analysis Center](#)

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National Highway Traffic Safety Administration
Trends in Alcohol-Involved Traffic Fatalities
in Delaware by County, 2014-2018
(in percentages)

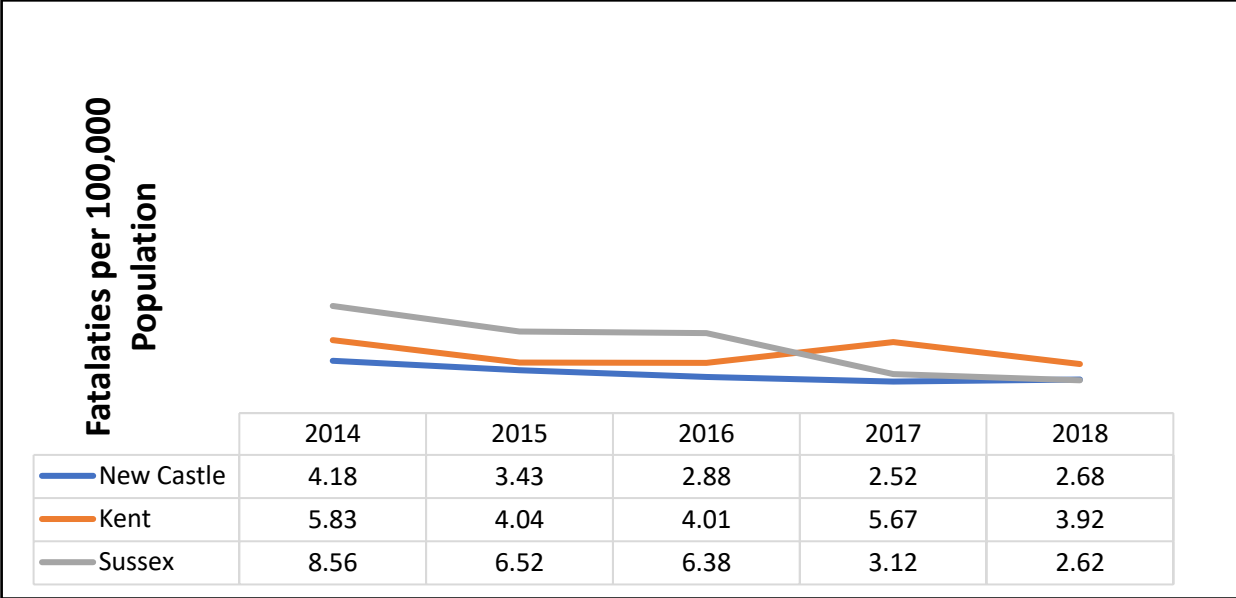


Figure 86: Trends in Delaware traffic fatalities/alcohol use by county

Note: Fatalities per 100,000 population

Source: [National Highway Traffic Safety Administration. Performance Measures, Delaware.](#)

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4. 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 (EISOHLY et al., 2016; NASEM, 2-7). 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)**

Measure	Total 12 or Older	AGE GROUP		
		12-17	18-25	26 or Older
Past Year Marijuana Use	17.11	14.03	41.09	13.97
Past Month Marijuana Use	11.16	8.19	26.72	9.22
Perceived of Great Risk of Smoking Marijuana Once a Month	21.60	22.00	10.54	23.17

Figure 87: Marijuana use, past year, past month, perceived risk, by age group

Notes:

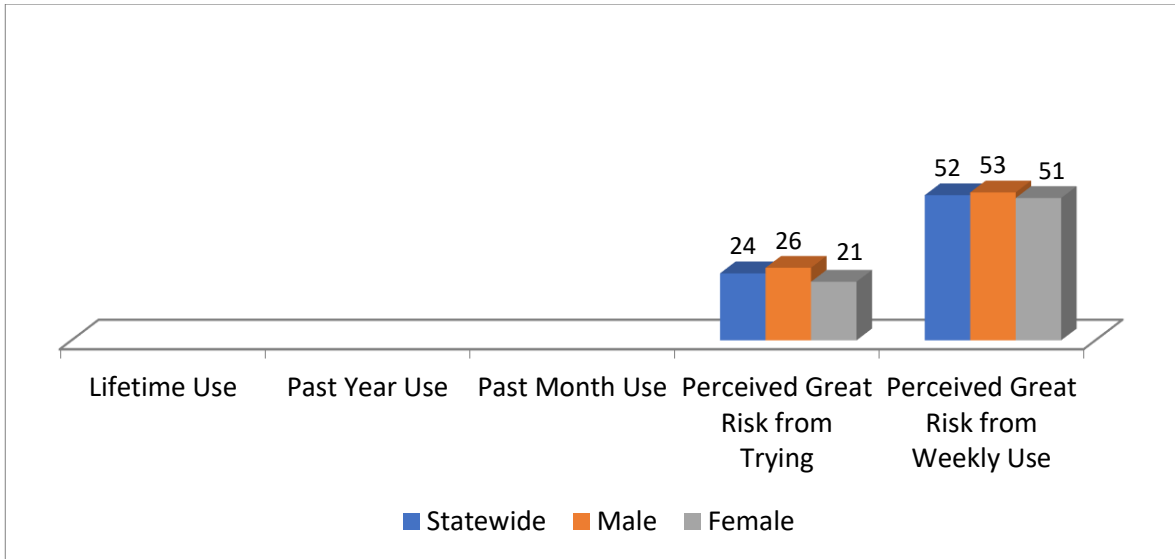
^a Estimates are based on a survey-weighted hierarchical Bayes estimation approach.

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](#)

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2019 Delaware School Survey

Marijuana Use among Delaware 5th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use	Perceived a Lot of Risk from:	
				TRYING	WEEKLY USE
Statewide	-	-	-	24	52
Male	-	-	-	26	53*
Female	-	-	-	21	51*

Figure 88: Marijuana use, 5th graders

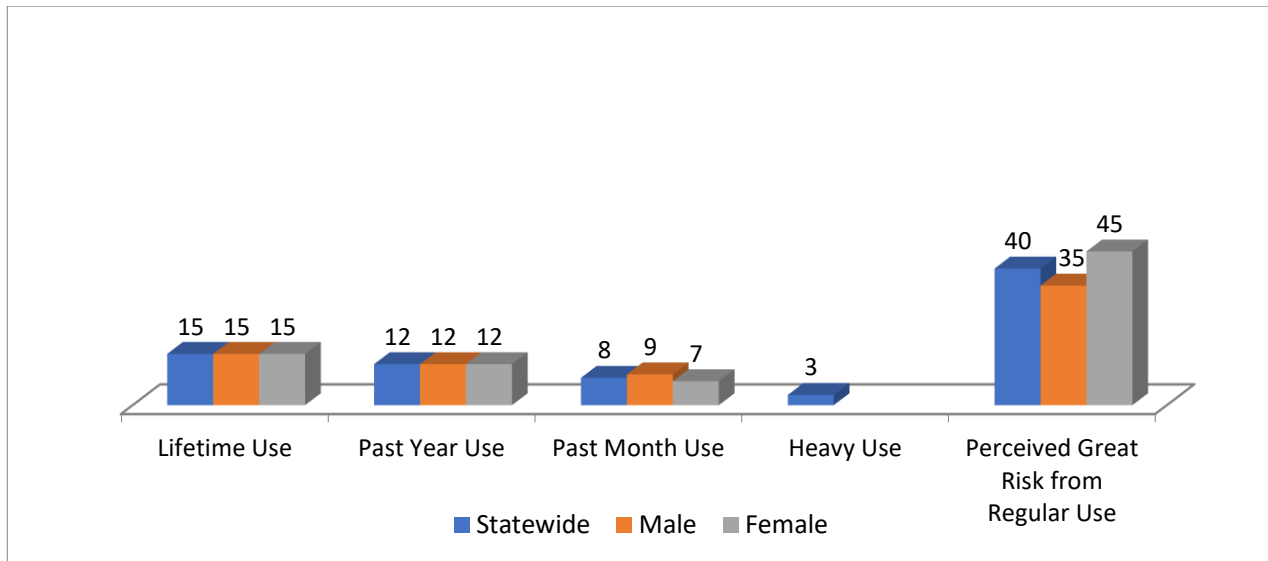
Note: “-” indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: 5th Grade \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware School Survey Marijuana Use among Delaware 8th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use	Heavy Use ^a	Perceived Great Risk from Regular ^b Use
Statewide	15	12	8	3	40
Male	15*	12*	9*	-	35
Female	15*	12*	7*	-	45

Figure 89: 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.

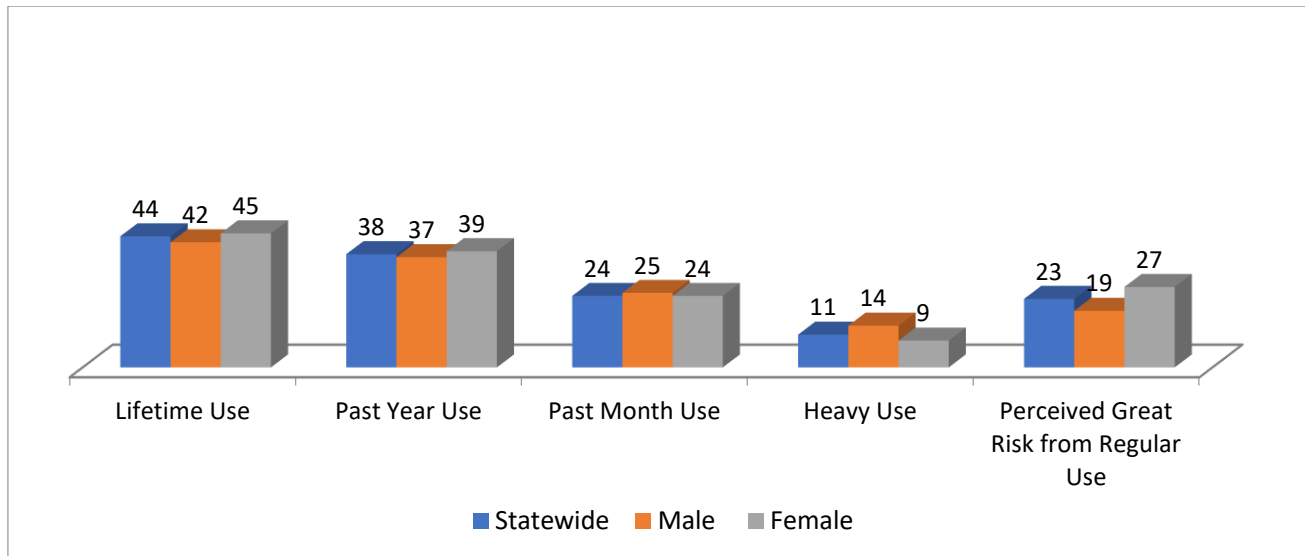
*Estimates were not statistically significant at the p<.05 level.

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware School Survey

Marijuana Use among Delaware 11th Graders (in percentages)



	Lifetime Use	Past-Year Use	Past-Month Use	Heavy Use ^a	Perceived Great Risk from Regular ^b Use
Statewide	44	38	24	11	23
Male	42*	37*	25*	14	19
Female	45*	39*	24*	9	27

Figure 90: 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.

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Middle School Students Who Report Ever Using Marijuana (in percentages)

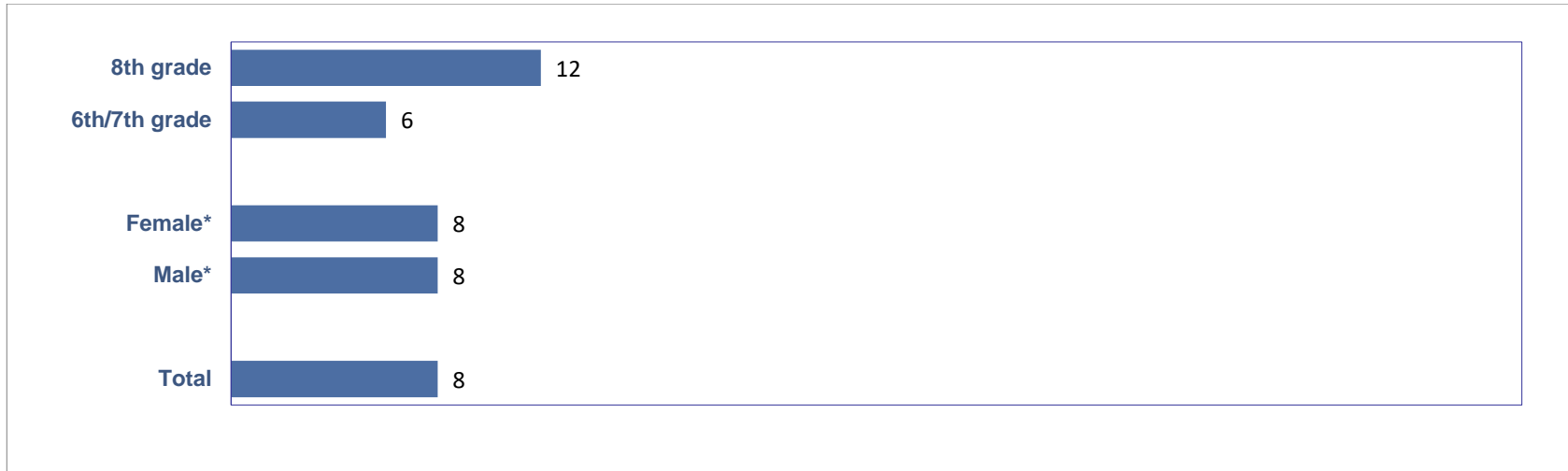


Figure 91: Lifetime marijuana use, by sex, grade, MS

Notes:

*Estimates are not statically 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.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey High School Students Who Report Ever Using Marijuana (in percentages)

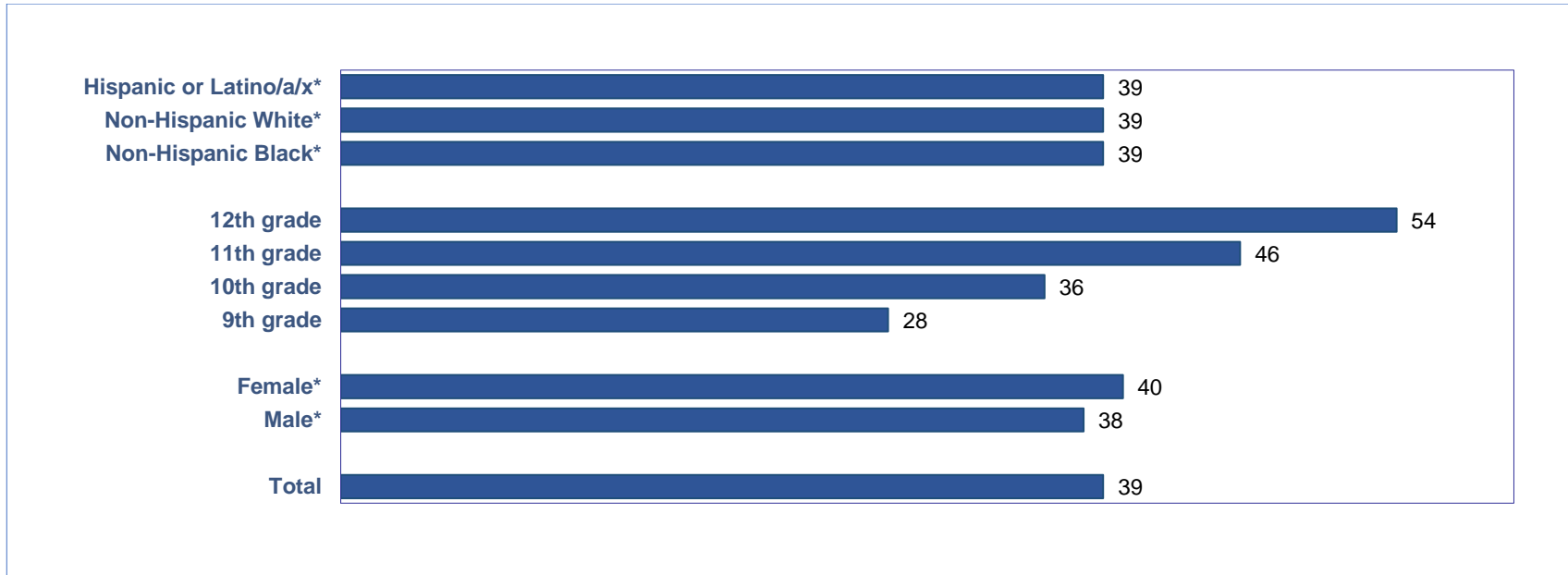


Figure 92: Marijuana use in lifetime, by sex, grade, and race/ethnicity, HS

Note:

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey

High School Students Who Used Marijuana in the Past 30 Days (in percentages)

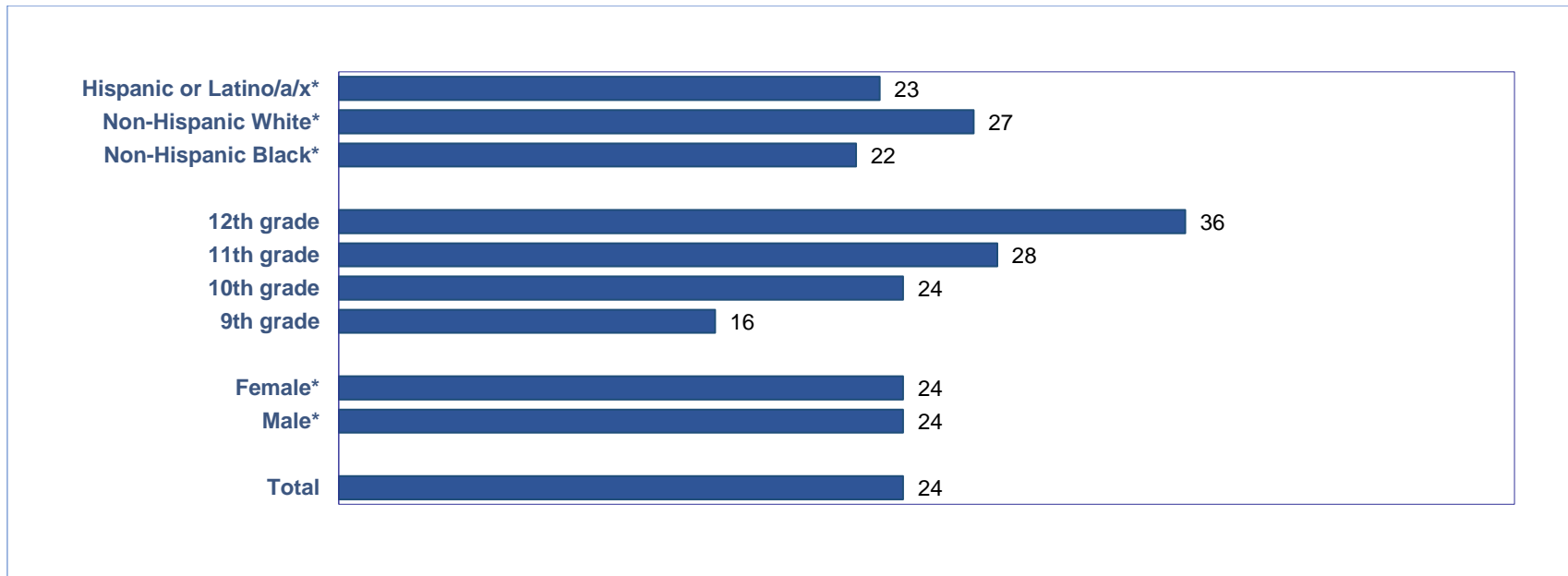


Figure 93: Marijuana use in the past 30 days, by sex, grade, and race/ethnicity, HS

Note:

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey High School Students Who Used Marijuana before Age 13 (in percentages)

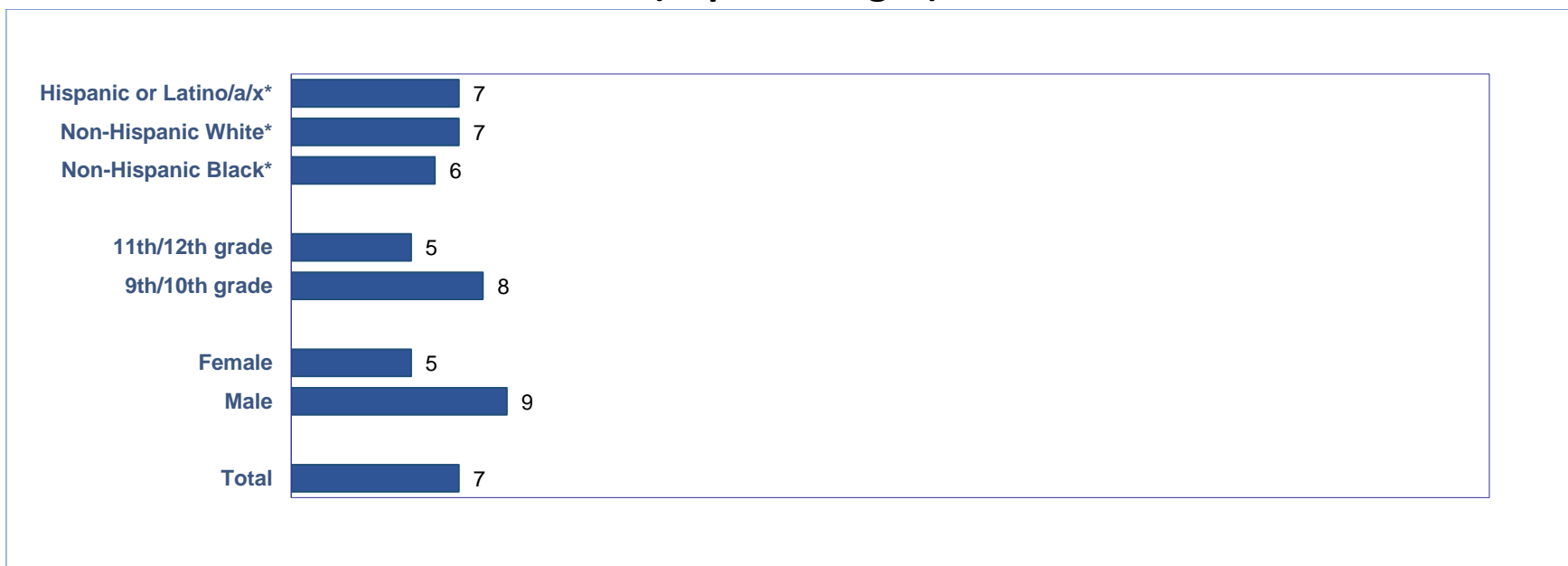


Figure 94: Marijuana use before age 13, by sex, grade, and race/ethnicity, HS

Notes:

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware School Survey

Students' Average Age of Onset for Marijuana Use

8 TH Grade	11 TH Grade
13.2 years	15.2 years

Figure 95: 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)

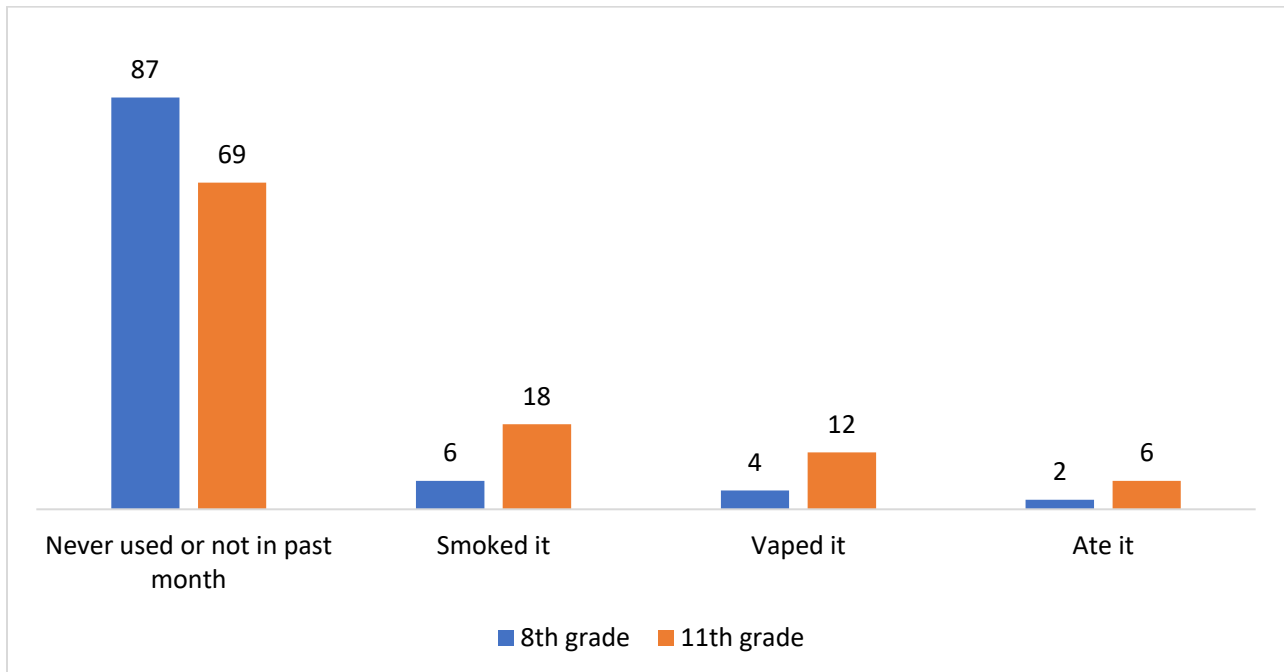


Figure 96: Method of consumption for marijuana, 8th and 11th grade

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Delaware School Survey

Trends in Delaware Students' Past Month Marijuana Use by Grade, 1989-Present (in percentages)

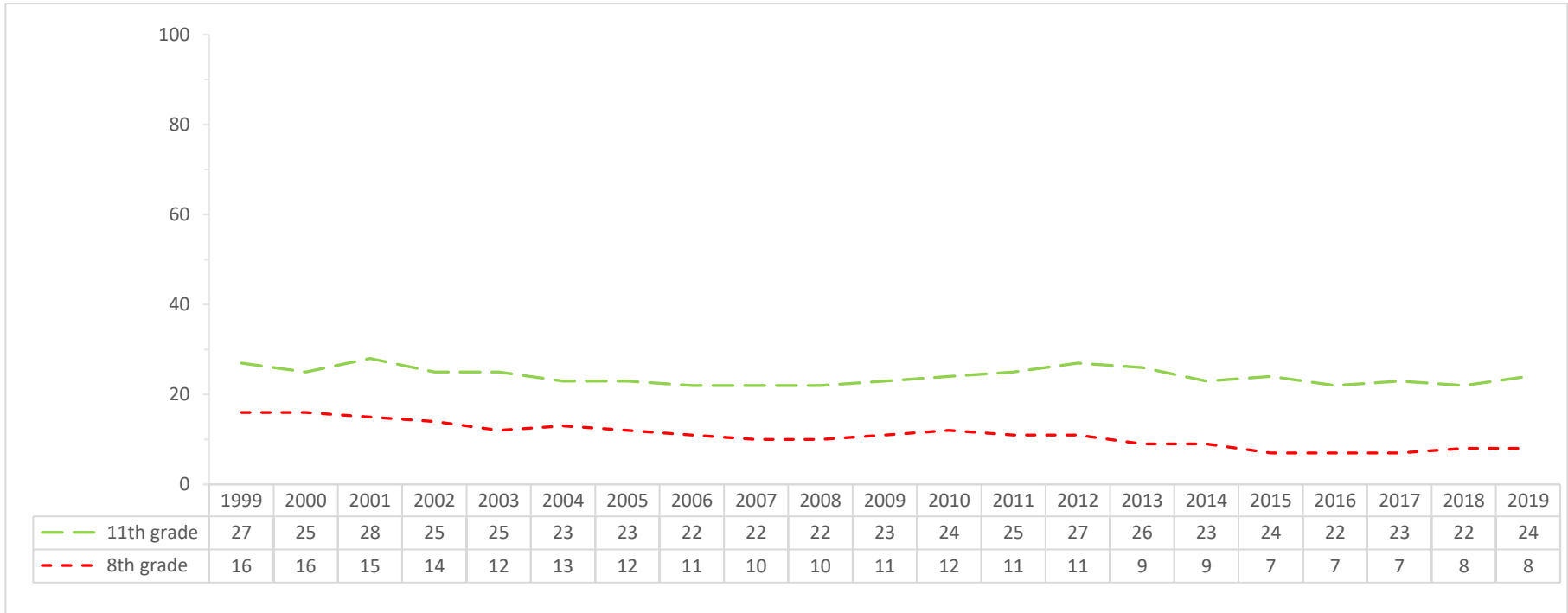


Figure 97: Trends in past month marijuana use, 8th and 11th grade

Note:

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Delaware Youth Risk Behavior Survey

Trends in Delaware High School Students' Marijuana Use in Past Month and Lifetime, 1999-2019 (in percentages)

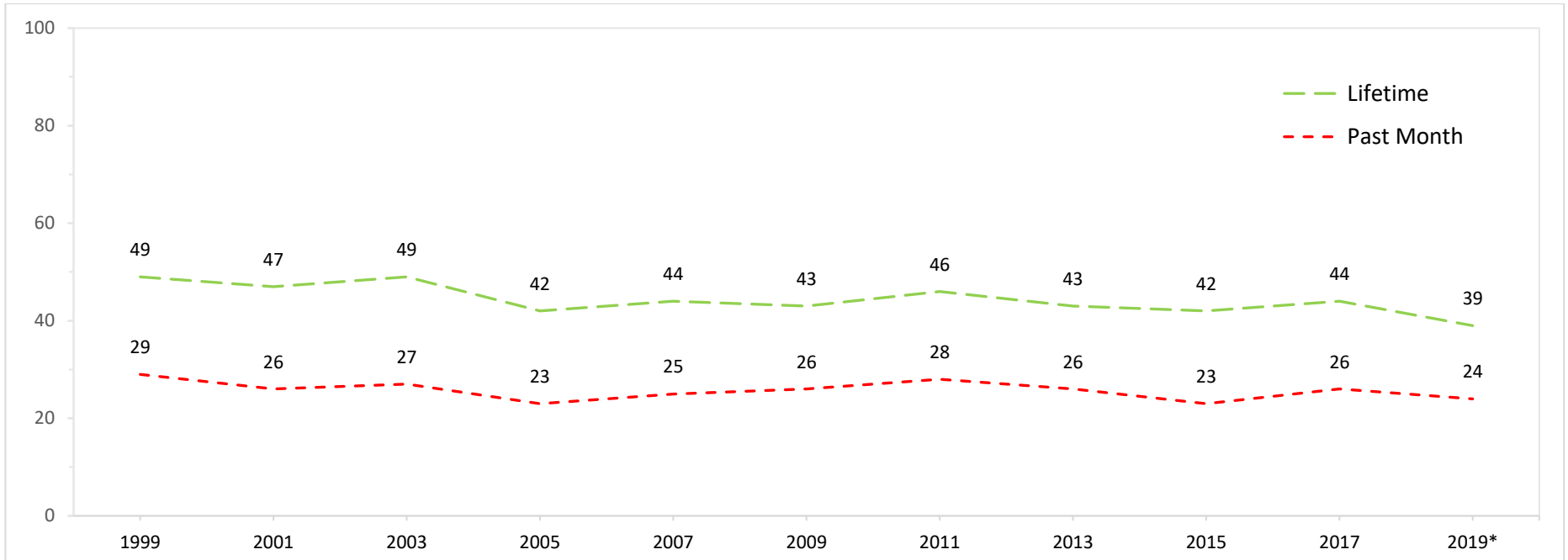


Figure 98: Trends in marijuana use, past month & lifetime, HS

Note:

*YRBS data was unweighted in 2019.

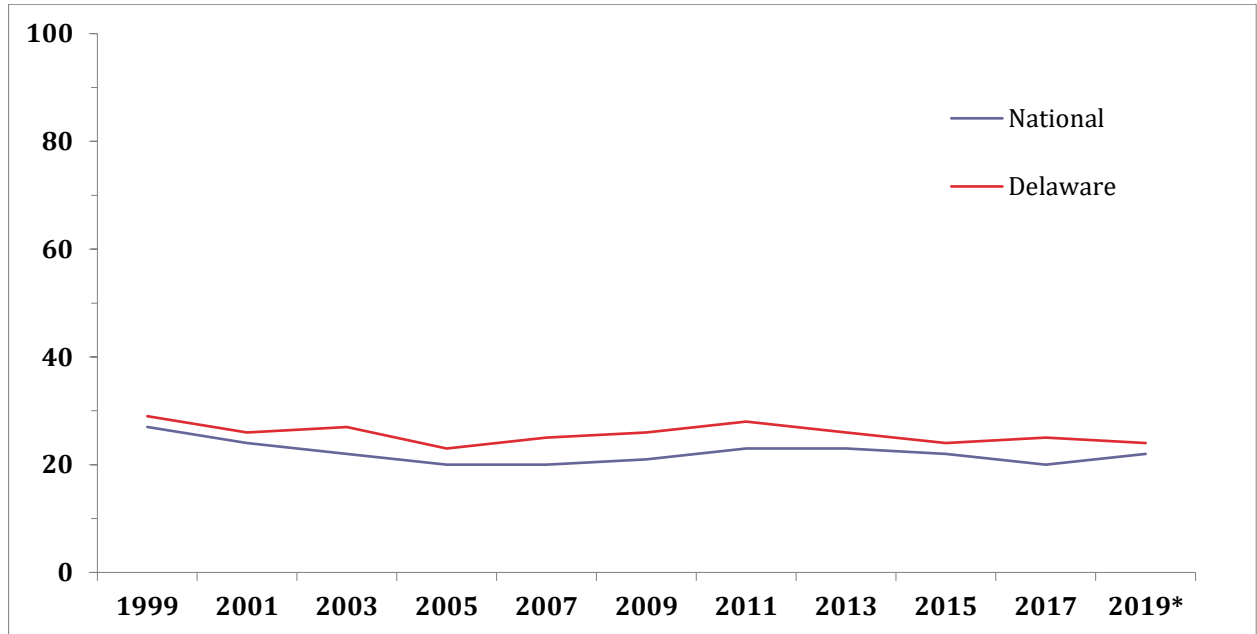
Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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Youth Risk Behavior Survey

National and Delaware, 1999-2019

Trends in High School Students' Past Month Use of Marijuana (in percentages)



Year	National	Delaware
1999	27	29
2001	24	26
2003	22	27
2005	20	23
2007	20	25
2009	21	26
2011	23	28
2013	23	26
2015	22	24
2017	20	25
2019*	22	24

Figure 99: Trends in marijuana use, past month, national and Delaware

Notes:

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

Sources: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

[Centers for Disease Control and Prevention. \(2019\). National Youth Risk Behavior Survey: High School.](#)

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**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**

AGE GROUP (Years)												
State	12 or Older			12-17			18-25			26 or Older		
	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b
	Total U.S.	14.50	15.47	.000	12.19	12.45	.242	33.91	34.80	.018	11.61	12.73
Northeast	15.10	15.97	.003	12.29	13.00	.075	37.92	38.99	.151	11.77	12.69	.010
Delaware	14.80	17.11	.001	13.48	14.03	.628	37.20	41.09	.034	11.60	13.97	.004

Figure 100: 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](#)

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National Survey on Drug Use and Health
Past Month Marijuana Use by Age Group and Region
2016-2017 and 2017-2018
(in percentages) ^a

AGE GROUP (Years)												
State	12 or Older			12-17			18-25			26 or Older		
	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b
	Total U.S.	9.23	9.83	.000	6.46	6.56	.568	21.45	22.12	.033	7.56	8.25
Northeast	9.83	10.25	.050	6.76	6.82	.822	24.86	24.74	.843	7.77	8.35	.021
Delaware	9.95	11.16	.028	7.45	8.19	.346	23.73	26.72	.060	8.17	9.22	.097

Figure 101: 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](#)

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Monitoring the Future

National Trends in Past Month Marijuana Use among 8th, 10th, and 12th grade students, 1999-2019 (in percentages)

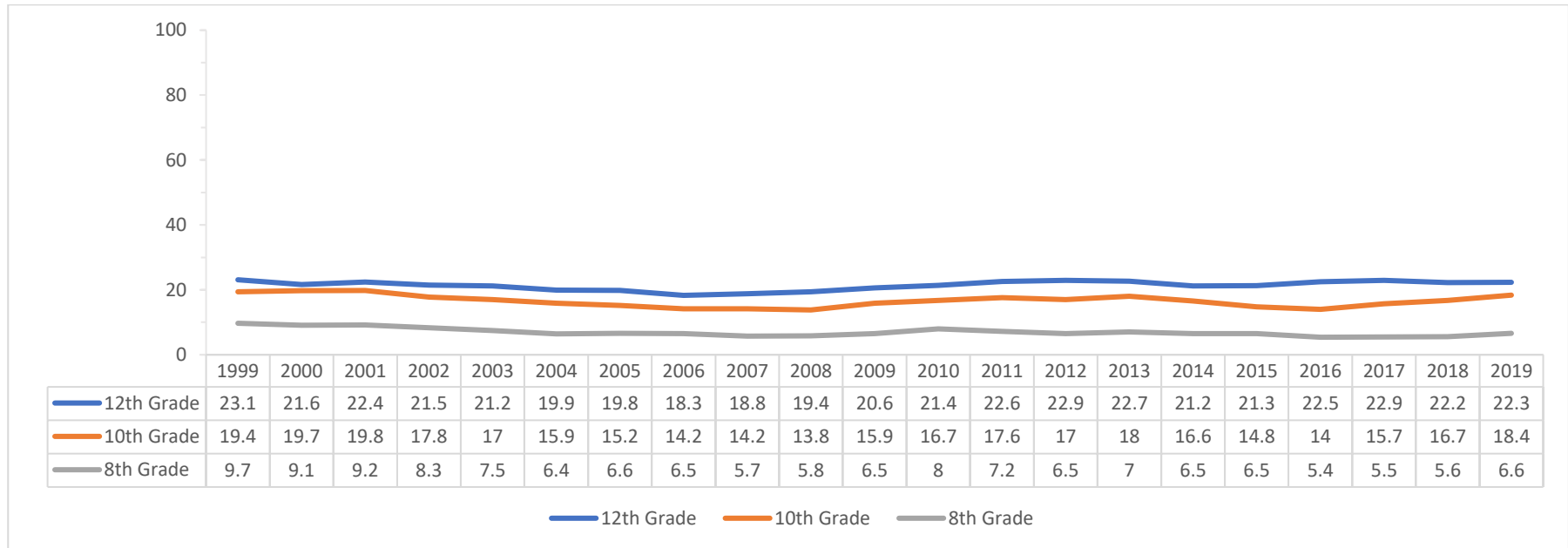


Figure 102: National trends in past month marijuana use, 8th, 10th, 12th grade

Sources: [“National Survey Results on Drug Use, 1975-2019.” Monitoring the Future Study \(MTF\), University of Michigan.](#)

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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)

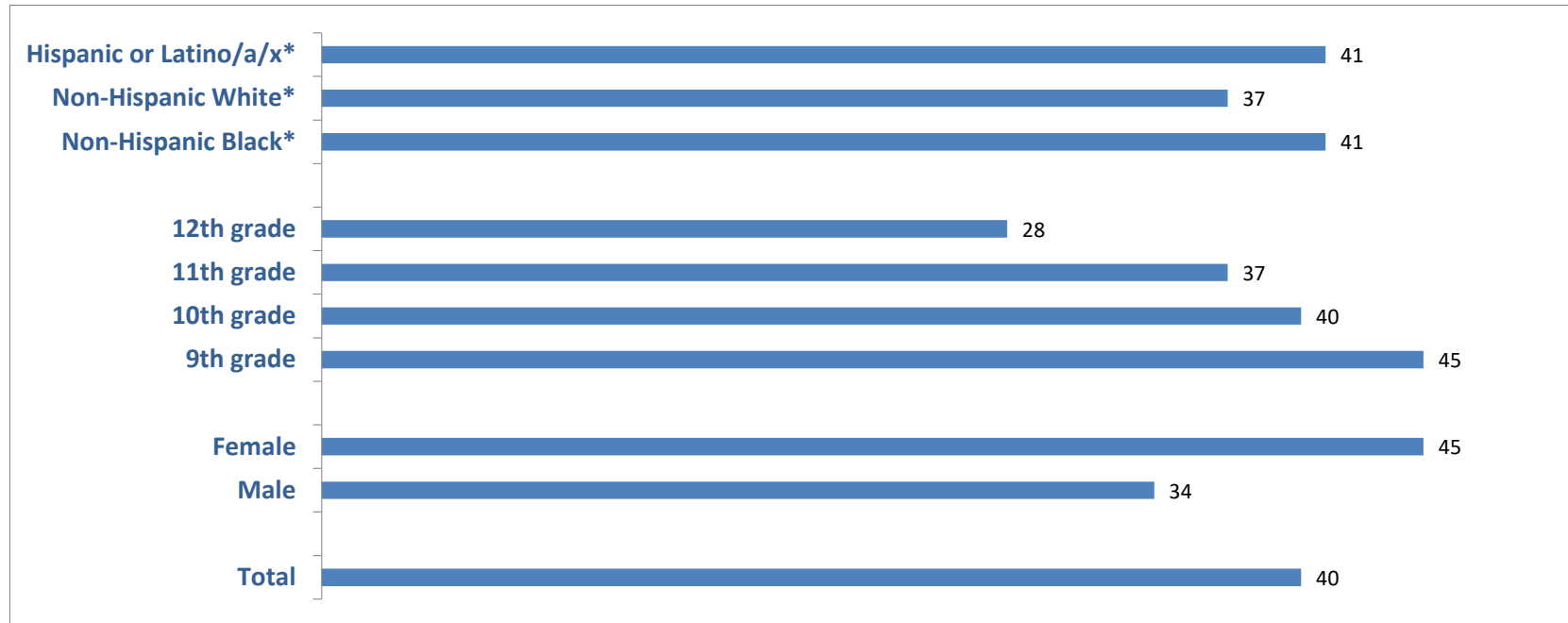


Figure 103: Perception of risk from once- or twice-a-week marijuana use

Note:

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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Delaware School Survey

Trends in 5th Graders' Perception of "a Lot of Risk" in Using Marijuana Weekly, 1999-2019 (in percentages)

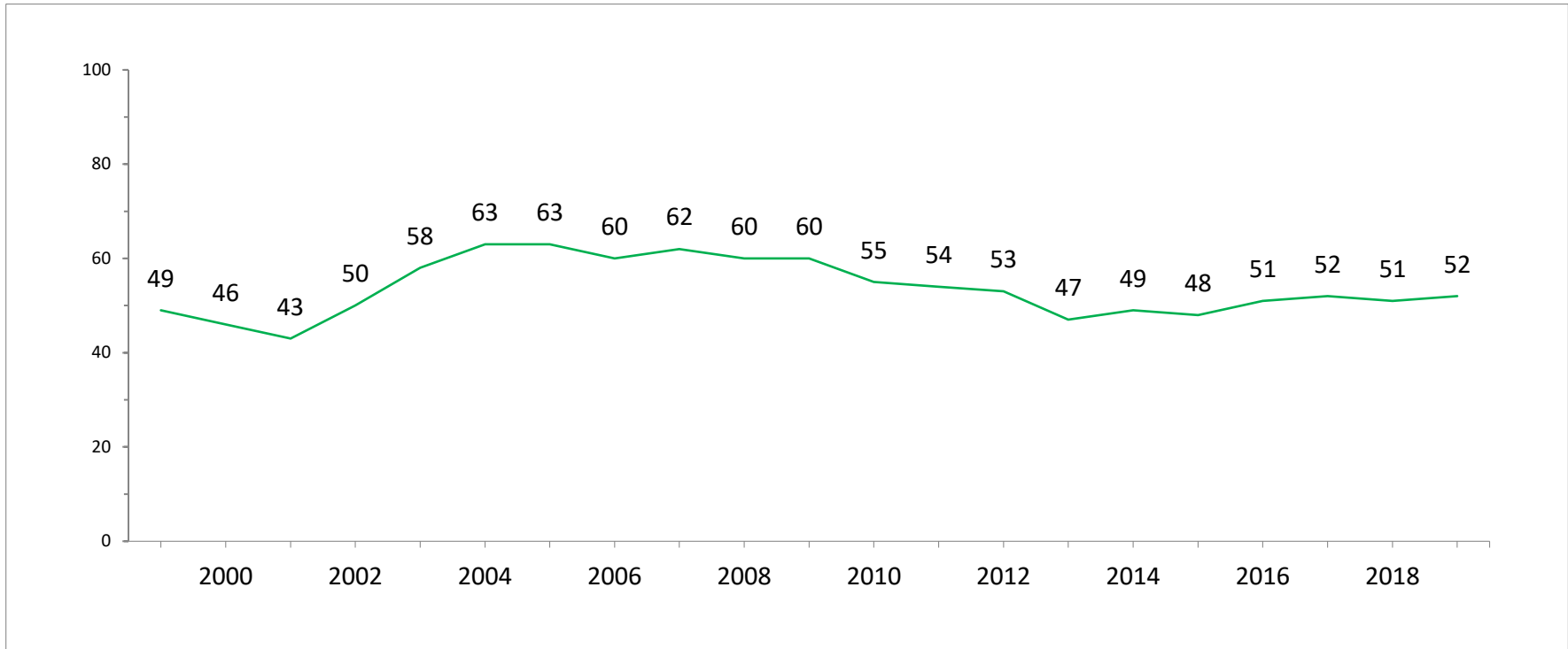


Figure 104: Trends in perception, "lot of risk" using marijuana weekly, fifth grade

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: 5th Grade \[Annual Survey\]. University of Delaware.](#)

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Delaware School Survey

Trends in 8th and 11th Graders' Perceptions of "Great Risk" in Using Marijuana Regularly, 1999-2019 ^a (in percentages)

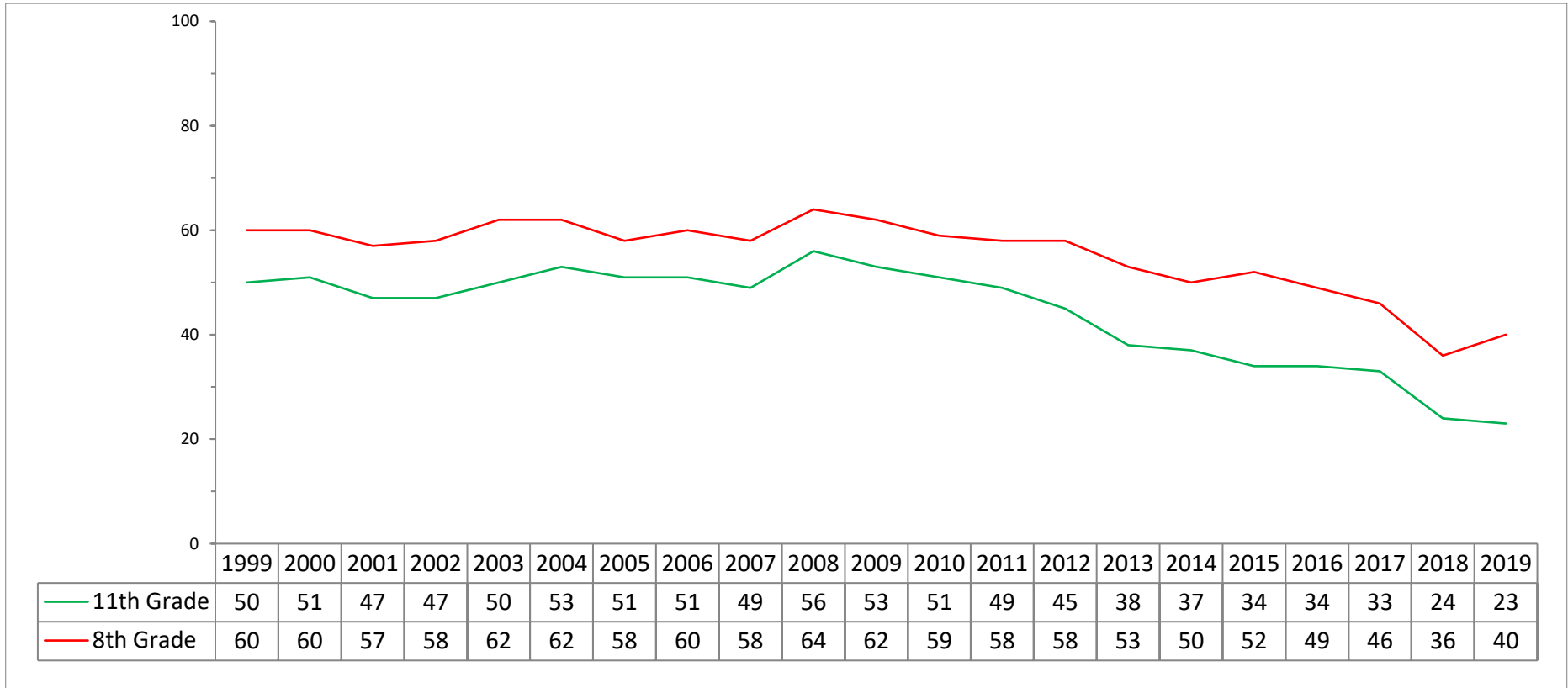


Figure 105: Trends in perception, "great risk" using marijuana regularly

Note:

^a "Regularly" is self-defined in the survey.

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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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

State	Age Group (Years)											
	12 or Older			12-17			18-25			26 or Older		
	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b
Total U.S.	26.91	25.54	.000	25.75	23.61	.000	12.89	12.14	.002	29.35	27.92	.000
Northeast	25.33	24.58	.065	25.34	23.23	.000	11.80	11.42	.364	27.51	26.80	.156
Delaware	24.32	21.60	.010	23.69	22.00	.262	12.21	10.54	.086	26.21	23.17	.019

Figure 106: 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.

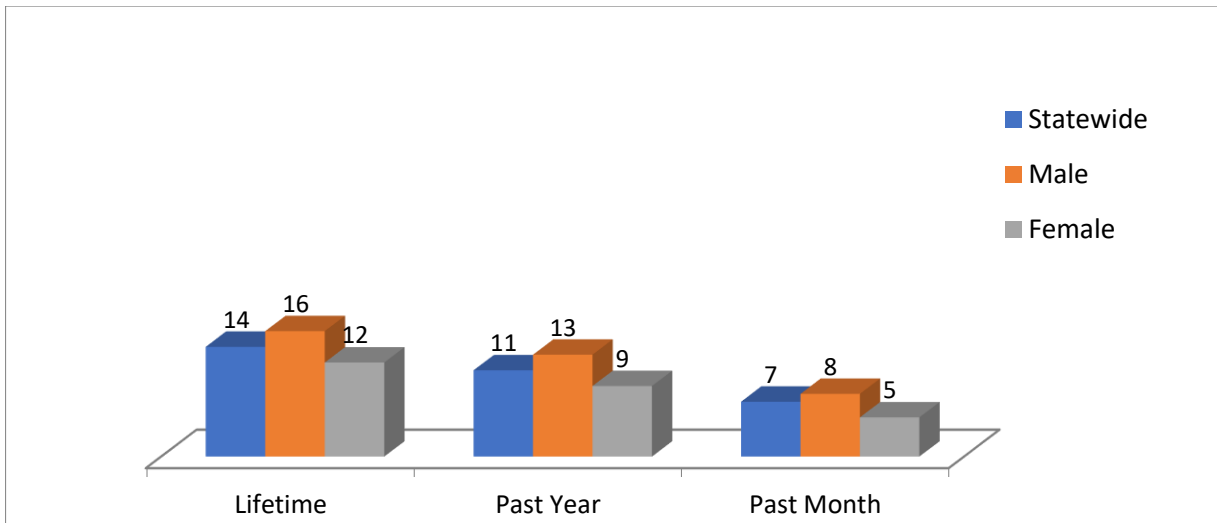
^b *p* value: Bayes significance levels for the null hypothesis of no change between the 2016-2017 and 2017-2018 population percentages.

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](#)

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2019 Delaware School Survey

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



	Lifetime	Past-Year	Past-Month
Statewide	14	11	7
Male	16	13	8
Female	12	9	5

Figure 107: Marijuana use and driving, 11th graders

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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

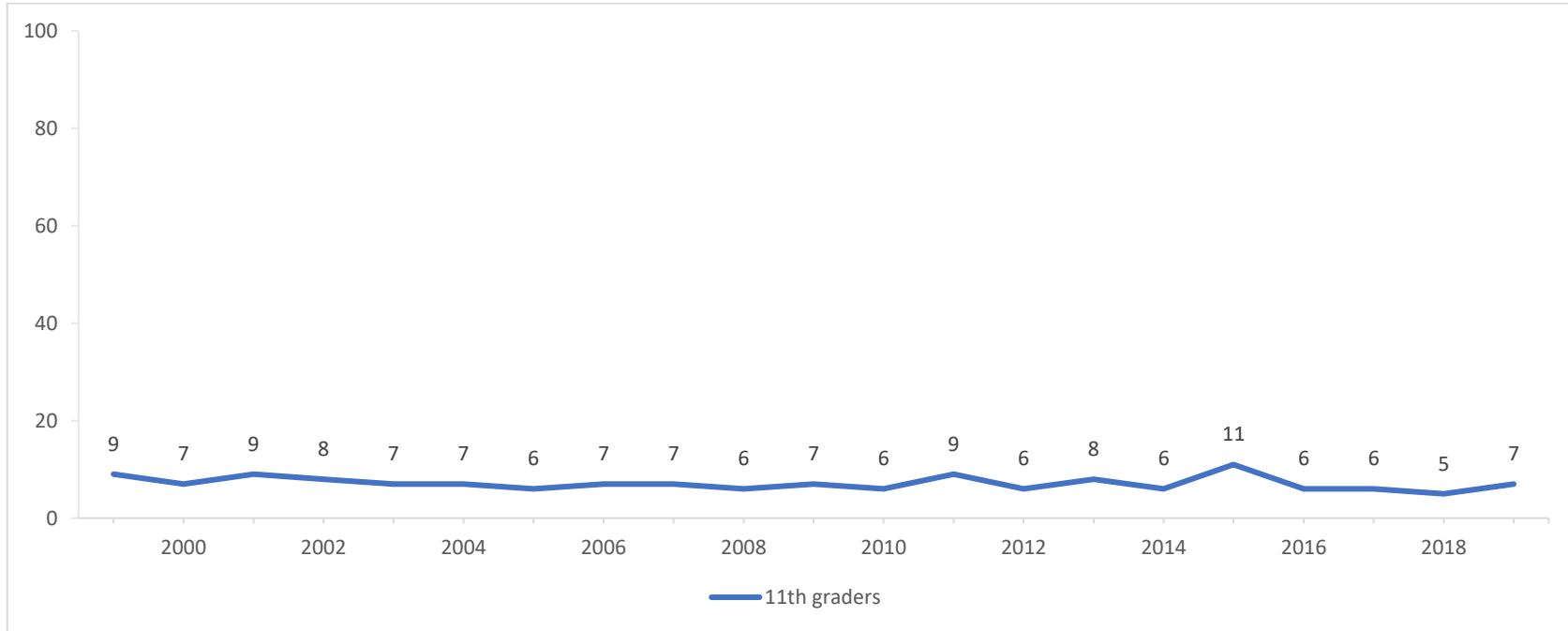


Figure 108: Trends, smoking marijuana & driving, 11th graders

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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5. Opioid Use and Other Trends

National Overview

The opioid class of drugs includes prescription painkillers such as morphine, hydrocodone, and oxycodone, as well as heroin. Opioids can be highly addictive and potent; their use often leads to tragic outcomes, including drug overdose deaths, infants born with neonatal abstinence syndrome, challenges in maintaining personal relationships, and challenges meeting educational or employment goals. Changes in opioid prescribing practices beginning in the 1990s contributed to increased accessibility and misuse of these drugs. The resulting rise in opioid misuse has led to alarming increases in overdose death rates across the country in what is now known as the opioid epidemic (Jones et al., 2018). Societal costs associated with this public health crisis are staggering. A study published in 2016 by researchers at the Centers for Disease Control and Prevention (CDC) estimates the annual economic burden of the opioid epidemic at \$78.5 billion (Florence et al., 2016). According to [results from the 2018 National Survey of Drug Use and Health \(NSDUH\)](#), prescription pain reliever misuse was the second most abused category of drugs in the U.S., after marijuana (Substance Abuse and Mental Health Services Administration [SAMHSA], 2019). NSDUH findings also estimate that 10.3 million people aged 12 and over misused opioids (including heroin as well as prescription pain relievers) within the year before the survey (SAMHSA, 2019).

Deaths due to drug overdoses have increased in the U.S. over the past two decades. In 2018, there were 63,367 overdose deaths and nearly 70% involved opioids (National Institute on Drug Abuse [NIDA], 2020). Although deaths involving all opioids, prescription opioids, and heroin decreased from 2017 to 2018, deaths involving synthetic opioids (except methadone), such as fentanyl, continue to rise dramatically. Fentanyl-related overdose deaths during the same time frame increased by almost 10%, accounting for two-thirds of all opioid overdose deaths. (Hedegaard, Minino, & Warner, 2020; NIDA, 2020).

Fentanyl, a powerful, synthetic opioid often prescribed to patients during end-of-life care or with advanced cancer, is increasingly accessible to users. In recent years, the prevalence of fentanyl has increased dramatically. Much of the fentanyl on the street has been illegally imported from China or illegally manufactured in China, the U.S., and Mexico, and is not derived from pharmaceutical supplies. The CDC reports that fentanyl is 50 times more potent than heroin and is often found mixed with heroin or cocaine, often with deadly results. The Drug Enforcement Administration reports a troubling trend of illegally manufactured pills inscribed with prescription brand names that are, in fact, primarily made with fentanyl that can result in overdose (Drug Enforcement Administration [DEA], 2019).

The risk of overdose also increases when opioids are used at the same time with benzodiazepine medications such as Valium or Xanax. Methadone, oxycodone, and hydrocodone are the drugs most often attributed to overdose in this category. Significantly rethinking prescribing practice and policy should have an effect on the number of people who

misuse and overdose on prescription opioids, as well as reduce the number of people transitioning to dangerous, illicit opioid use.

Additional health complications can arise from the misuse of opioids. People who inject drugs and share or reuse needles risk spreading infectious diseases such as human immunodeficiency virus (HIV) and hepatitis C, in addition to other health complications. In response, many communities and states have enacted needle-exchange programs that allow drug users to drop off used needles and receive either free or reduced-cost needles. In addition, many of these programs provide resources about substance use disorder treatment, infectious disease control, and other health information.

Neonatal abstinence syndrome (NAS) is another public health concern linked to the use of opioids. Between 1999 and 2013, a study of 28 states found more than a 300% increase in the number of babies born with NAS (Ko et al., 2016). Babies born with this condition experience symptoms of withdrawal that complicate regular, healthy development and often lead to additional time spent in the hospital after delivery. Infants born to mothers who use opioids are at higher risk of smaller birth weight, birth defects, difficulty feeding, developmental delays, future behavioral problems, and sudden infant death syndrome (DHSS, 2016). For pregnant women with opioid dependency, medication-assisted treatment remains the recommended therapy to improve health outcomes for both the mother and child (American College of Obstetricians and Gynecologists [ACOG], 2017).

Delaware Overview

Delaware has been hit hard by the opioid epidemic. The most recently available data from the CDC estimate Delaware's overdose mortality rate as 43.8 deaths per 100,000 residents, which is substantially higher than the national rate of 20.7 deaths per 100,000 (Hedegaard, Minino, & Warner, 2020). In 2018, 355 of the 401 overdose deaths in Delaware were attributed to opioids (National Institute on Drug Abuse, 2020). Fentanyl was identified in 341 of 431 overdose deaths in 2019 (Delaware Division of Forensic Science, 2020). In 2018, Delaware emergency responders administered 3,728 doses of naloxone, the opioid antagonist which can reverse the effects of opioid overdose and potentially save lives. This represents an increase of 30% from doses administered in 2017 (Delaware Department of Health and Social Services, 2019).

In 2019, almost half of individuals admitted to publicly funded treatment programs in Delaware listed heroin as their primary drug. An additional 7% of treatment admissions were attributed to use of other opiates (Treatment Episode Data Set, 2019; see Figure 135). A strengths, weaknesses, opportunities, and threats (SWOT) analysis by the Opiate and Heroin Dependency Committee, prepared for New Castle County Executive Matt Meyer, showed a significant gap between treatment need and access to services, partly due to lack of public knowledge about already existing resources, but also due to limitations in available services (Anderson et al., 2016). National research has shown that women with children often resist accessing treatment services out of fear that their children may be taken into state custody. Treatment programs

that accommodate mothers with children have higher success rates among women with children than those that do not. Nationally, up to 70% of women who enter treatment have children (DHSS, 2016), and expanding treatment options that are responsive to the needs of caregivers may help improve treatment outcomes across the state.

The Prescription Monitoring Program (PMP) in Delaware records information on all prescriptions for controlled substances, with the goal of reducing the misuse of prescription drugs and improving patient care. These data can help to identify “pill mills” (doctors who prescribe disproportionate amounts of opioids to patients) as well as “doctor shoppers” (individuals who change doctors frequently to obtain prescribed opioids). These data can also help doctors identify whether patients are already taking prescriptions that may interfere with opioids, such as benzodiazepines. UD researchers analyzed this data to create hotspot maps that identified areas of the state with higher rates of opioid prescriptions (Center for Drug and Health Studies [CDHS], 2017). Identifying potential points of access should help reduce the flow of pills to recreational users. Delaware has already made some progress in targeting pill mills; early in 2017, three doctors in Delaware were sanctioned as a result of over-prescribing (Goss, 2017). Figures included in this chapter illustrate a four-year decline among the rate of people filling opioid prescriptions in Delaware, from 204 per 1,000 people in 2015 to 151 per 1,000 people in 2018. Additionally, the rates of instant relief and high-dose opioid prescriptions being filled have declined since 2012.

Data from the 2017-2018 NSDUH estimate that 4.23% of Delawareans aged 12 and over and 6.9% of adults aged 18-25 have misused prescription pain relievers in the past year. Both figures are comparable to national averages.

Among Delaware youth, 2019 Delaware School Survey data show that approximately 4% of 8th and 5% of 11th grade students report rates of lifetime misuse of prescription pain medications; students of both grades report a past year misuse rate of 3%. The 2019 Youth Risk Behavior Survey (YRBS) indicates slightly higher rates; one in ten high school students report using prescription pain medications that they were not prescribed or in ways that were not prescribed at least once in their lifetime, and 5% report such misuse in the previous month. Middle school students responding to the 2019 YRBS report 7% lifetime and 4% past month rates of misuse.

In 2019, there were 705 cases of substance-exposed infants (SEI) reported in Delaware (Donahue and Parker, 2020), many of whom were exposed to opioids. SEI is discussed in more detail in Chapter 7 of this report.

Although Delaware continues to experience the impact of the opioid crisis, a policy analysis recently conducted by the National Safety Council indicates that the state has made progress in five of six key actions needed to end the opioid crisis: mandating prescriber education; implementing prescriber guidelines; implementing prescription drug monitoring programs; treating opioid overdoses; and increasing availability of opioid use disorder treatment (National Safety Council, 2020).

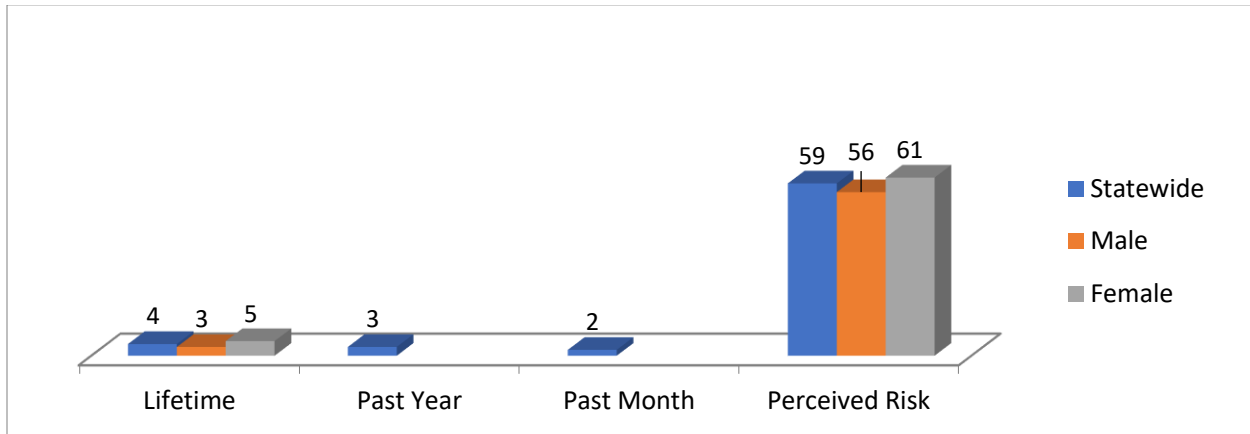
Data in Action: Easing MAT Restrictions During the Pandemic

Medication-Assisted Treatment (MAT) combines FDA-approved medications with counseling and other social supports for patients. For patients with opioid use disorder (OUD), there are three medications available: methadone, buprenorphine, and naltrexone. Methadone works by reducing opioid cravings and blocking the effects of other opioids. The typical length of a methadone maintenance program is at least 12 months, though some patients may require even longer-term maintenance (SAMHSA, n.d.). Buprenorphine (also known as Suboxone) and naltrexone also help to reduce cravings and block patients from getting high if they do take other opioids, but their pharmacological mechanisms for doing so vary slightly from methadone, making them less prone to misuse. Buprenorphine can be prescribed in an office-setting rather than an opioid treatment program (OTP), and as a partial opioid agonist can reduce withdrawal symptoms and cravings for opioids (SAMHSA, n.d.). Naltrexone is available as a pill or as an injection and also works by completely blocking the opioid receptors, reducing cravings and preventing patients from getting high if they take other opioids. Naltrexone has a very low misuse potential, but patients must undergo a complete medical withdrawal from all opioids prior to initiating naltrexone use, which makes it a less favorable option for many (SAMHSA, n.d.).

Due to misuse potential, the prescribing and administration of medications as part of a MAT program is subject to highly structured regulations, particularly for methadone and buprenorphine. For methadone, patients must receive their daily dose under the supervision of a physician at an Opioid Treatment Program (OTP), though after a period of time and under special circumstances certain patients may be allowed to take home a small number of doses in-between visits to the treatment program rather than being required to come in-person each day to the program for supervision. The requirement of visiting the program daily to receive their dose can place a burden on methadone patients, who may need to travel a long distance to get to the clinic each day and may also face problems related to jobs, childcare, and transportation. Buprenorphine does not require daily visits to the clinic, but there are still restrictions on how much can be prescribed at one time and requirements for in-office visits for prescriptions.

As many states and local municipalities issued stay-at-home orders to slow the spread of the novel coronavirus and limit in-person interactions, many MAT protocols and regulations also needed to change (Partnership to End Addiction, 2020). In March of 2020, SAMHSA issued new federal guidelines regarding both methadone and suboxone prescribing in order to reduce office and clinic visits for patients during the COVID-19 pandemic. The new guidelines allow for patients to bring home 28 days of methadone doses if they are considered stable, and 14 day supplies of medication for patients who are less stable (SAMHSA, 2020). New guidelines from the Drug Enforcement Administration (DEA) regarding prescribing controlled substances during the pandemic now allow patients receiving buprenorphine to see their providers via telehealth appointments rather than requiring in-person office appointments for initial evaluations and follow-up appointments (DEA, 2020).

2019 Delaware School Survey Reported Prescription Painkiller Misuse^a among Delaware 8th Graders (in percentages)



	Lifetime	Past Year	Past Month	Perceived Great Risk from Using Prescription Drugs without a Prescription
STATEWIDE	4	3	2	59
Males	3*	-	-	56
Females	5*	-	-	61

Figure 109: Prescription painkiller misuse, 8th graders

Note:

^a Misuse is defined in the DSS as use of prescription painkillers without a doctor's prescription or in ways other than prescribed.

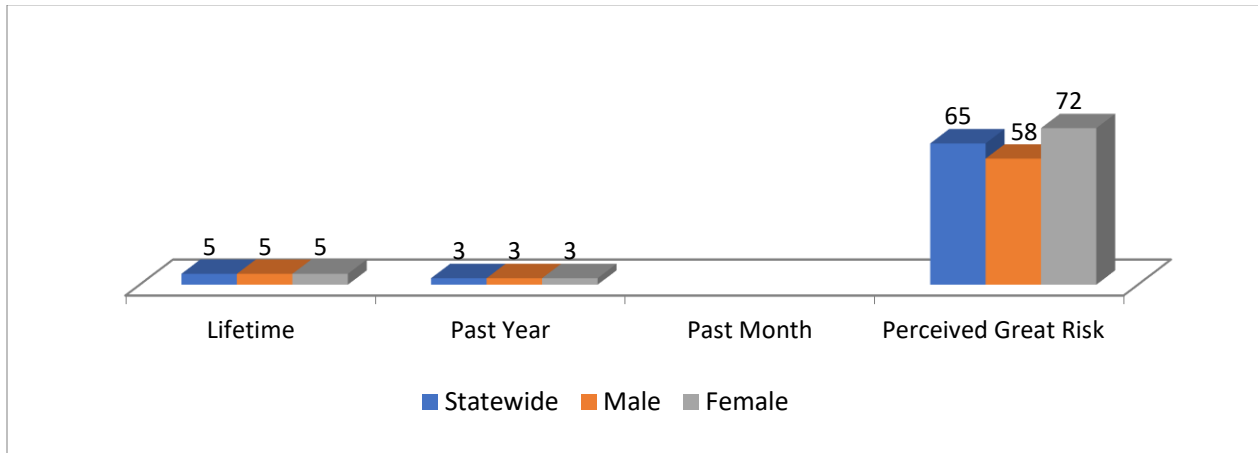
"-" indicates that the prevalence estimate was not reported because the unweighted sample size represented fewer than 30 students.

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware School Survey Reported Prescription Painkiller Misuse^a among Delaware 11th Graders (in percentages)



	Lifetime	Past Year	Past Month	Perceived Great Risk from Using Prescription Drugs without a Prescription
Statewide	5	3	-	65
Males	5*	3*	-	58
Females	5*	3*	-	72

Figure 110: Prescription painkiller use, 11th graders

Note:

^aMisuse is defined in the DSS as use of prescription painkillers without a doctor's prescription or in ways other than prescribed.

"-" 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. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Delaware School Survey

Trends in Past Year Misuse* of Prescription Painkillers among Delaware 8th and 11th Graders, 2002-2019 (in percentages)

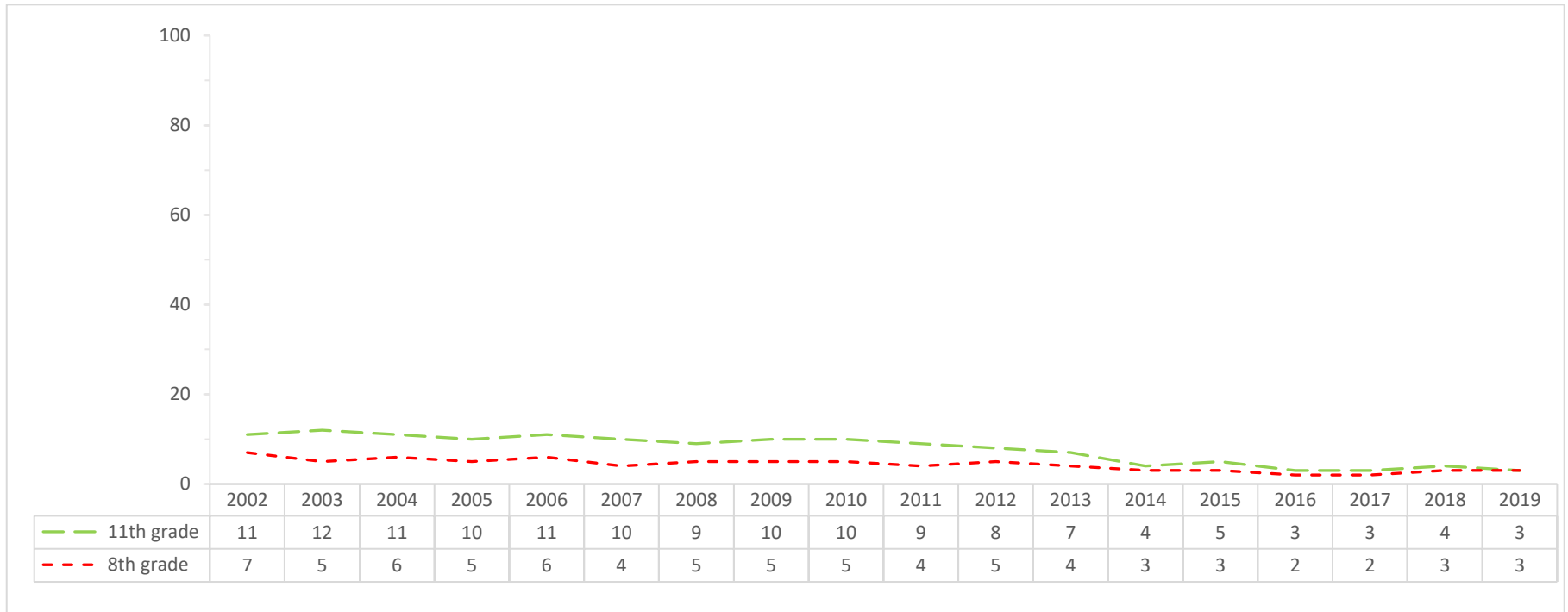


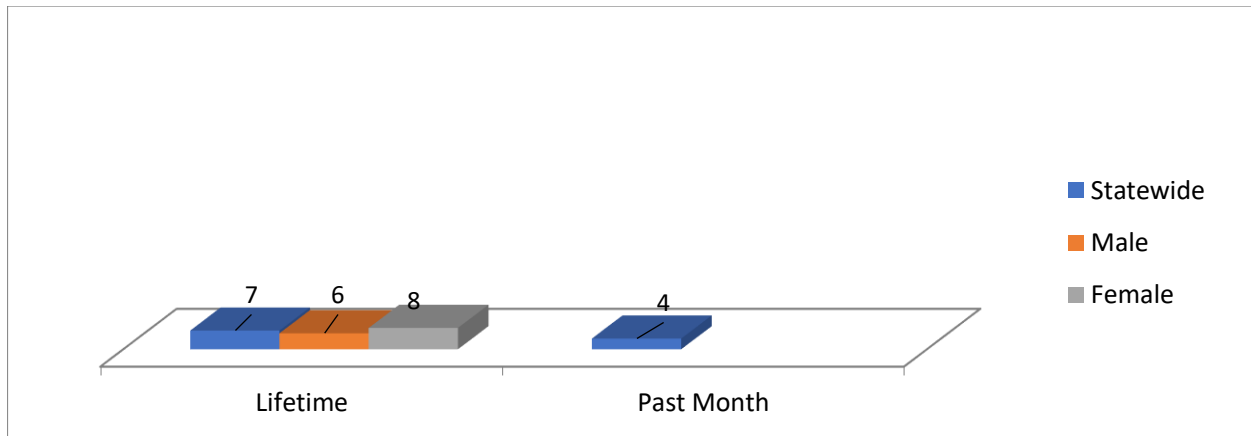
Figure 111: Trends in past year prescription painkiller misuse, 8th and 11th graders

Note: * Misuse is defined in the DSS as use of prescription painkillers without a doctor's prescription or in ways other than prescribed.

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Middle School Prescription Pain Medicine Misuse^a (in percentages)



	Lifetime	Past Month
Statewide	7	4
Male	6*	-
Female	8*	-

Figure 112: Prescription painkiller misuse, lifetime and past month, MS

Note:

^a Misuse is defined as the use of prescription painkillers without a doctor’s prescription or in ways other than prescribed
“-” 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. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey

Lifetime Prescription Pain Medicine Misuse^a among High School Students (in percentages)

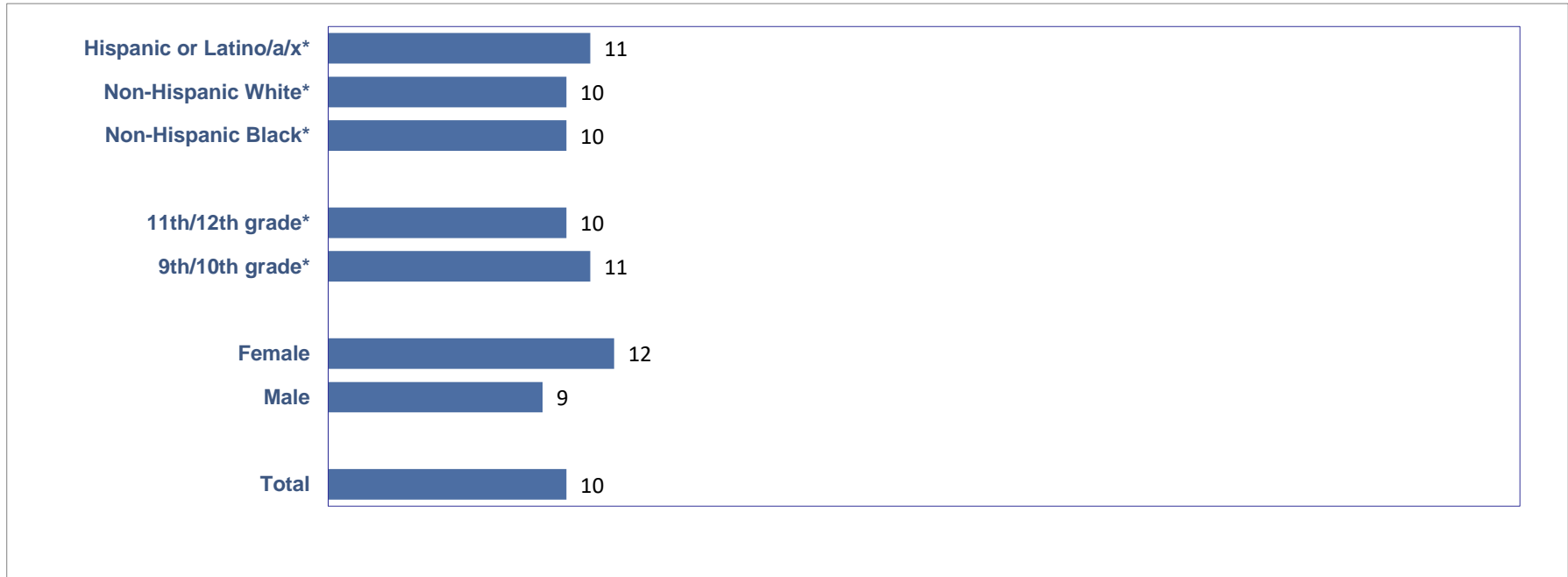


Figure 113: Prescription painkiller misuse, lifetime, HS

Note:

^aMisuse is defined in the YRBS as use of prescription painkillers without a doctor's prescription or in ways other than prescribed.

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey

Past Month Prescription Pain Medicine Misuse^a among High School Students (in percentages)

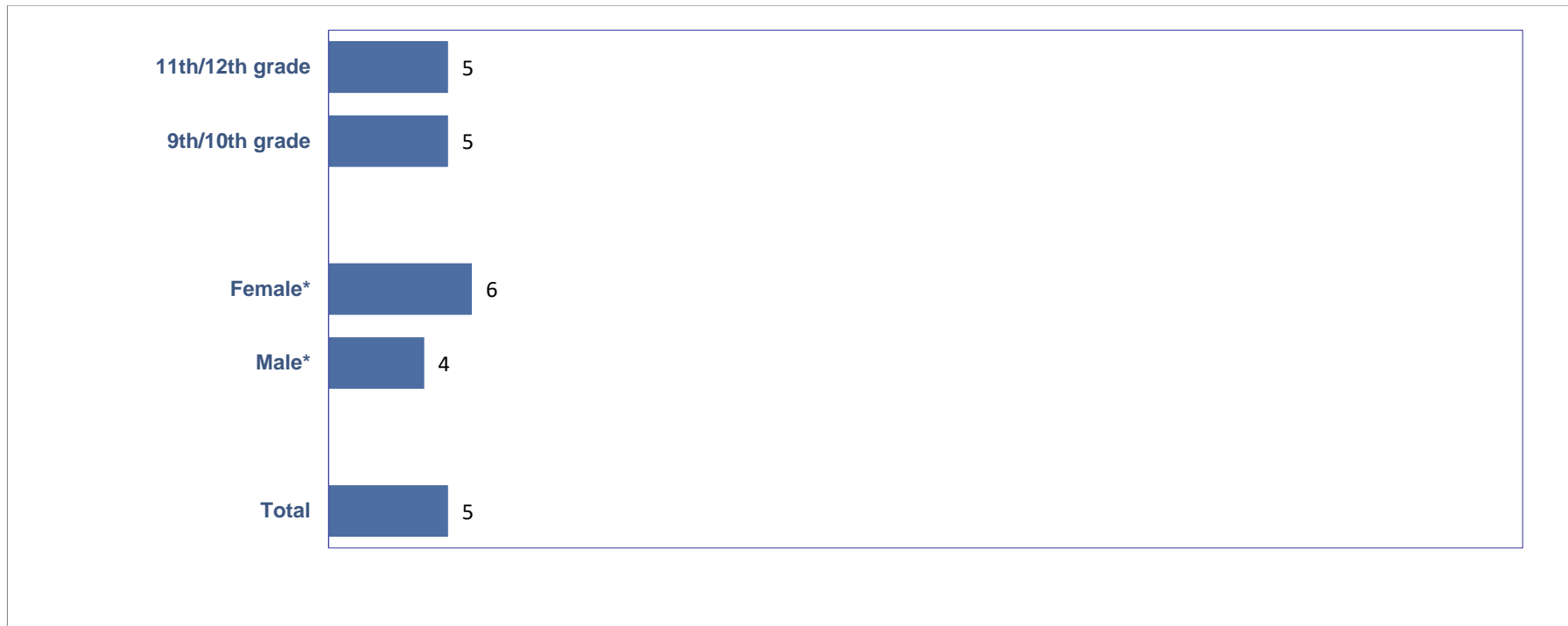


Figure 114: Prescription painkiller misuse, past month, HS

Note:

^aMisuse is defined in the YRBS as use of prescription painkillers without a doctor's prescription or in ways other than prescribed.

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

-Estimates of differences by race and ethnicity were too small ($n < 30$) to report.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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National Survey of Drug Use and Health
Pain Reliever Misuse* in Past Year, by Age Group and Region
2016-2017 and 2017-2018
(in percentages)^a

State	AGE GROUP (Years)											
	12 or Older			12-17			18-25			26 or Older		
	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b
Total U.S.	4.17	3.85	.000	3.31	2.93	.002	7.13	6.32	.000	3.79	3.56	.011
Northeast	3.77	3.42	.008	2.63	2.27	.048	6.62	5.88	.012	3.44	3.15	.077
Delaware	4.23	3.77	.141	2.89	2.79	.812	6.90	6.85	.941	3.98	3.43	.171

Figure 115: Pain reliever misuse, past year, by age group and region

Note:
 *Misuse is defined in the NSDUH as: “use in any way not directed by a doctor, including use without a prescription of one’s own; use in greater amounts, more often, or longer than told; or use in any other way not directed by a doctor”
^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](#)

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Monitoring the Future National Trends in Annual Use: Vicodin 8th, 10th, and 12th Grade (in percentages)

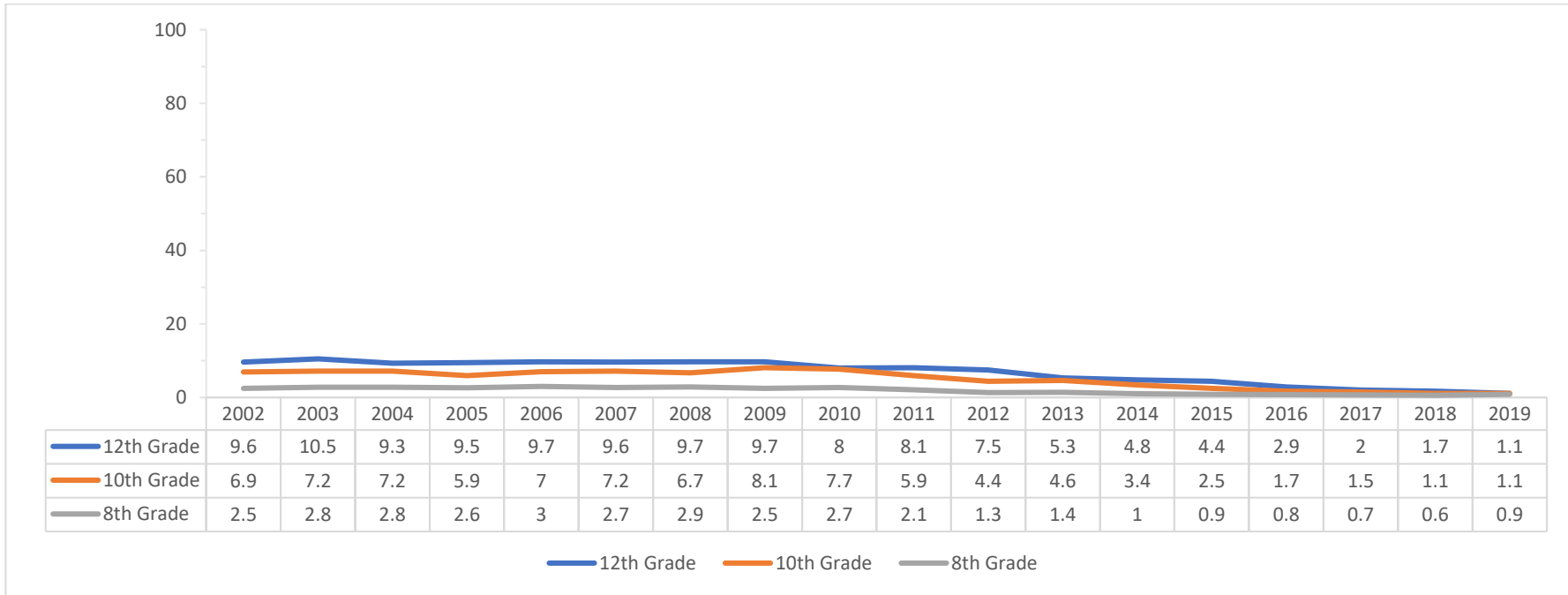


Figure 116: National trends in annual prevalence of Vicodin misuse, 8th, 10th, and 12th grade

Source: ["National Survey Results on Drug Use, 1975-2019." Monitoring the Future \(MTF\). University of Michigan.](#)

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Monitoring the Future

National Trends in Annual Prevalence: OxyContin 8th, 10th, and 12th Grade (in percentages)

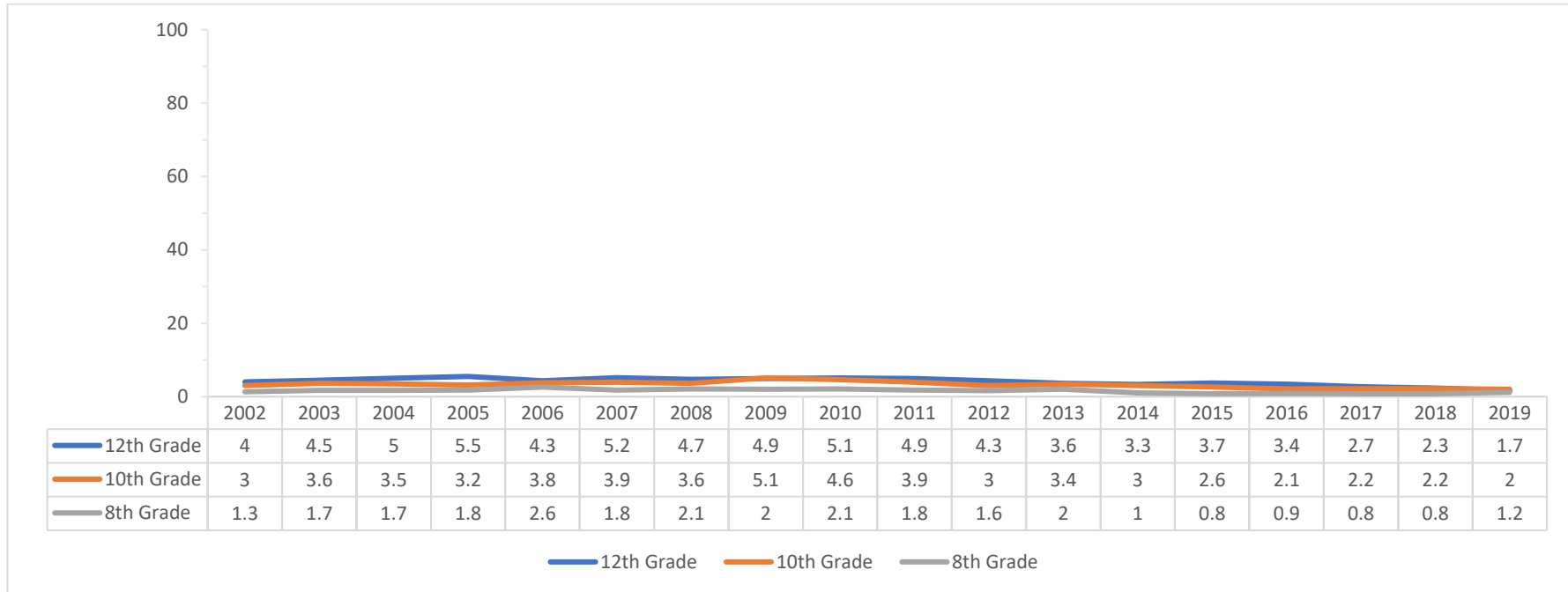


Figure 117: National trends in annual prevalence of OxyContin misuse, 8th, 10th, and 12th grade

Source: ["National Survey Results on Drug Use, 1975-2019." Monitoring the Future \(MTF\). University of Michigan.](#)

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Delaware Prescription Monitoring Program, 2012-2018

Trends in People Filling Opioid Prescriptions in Delaware (as a rate per 1000 people)

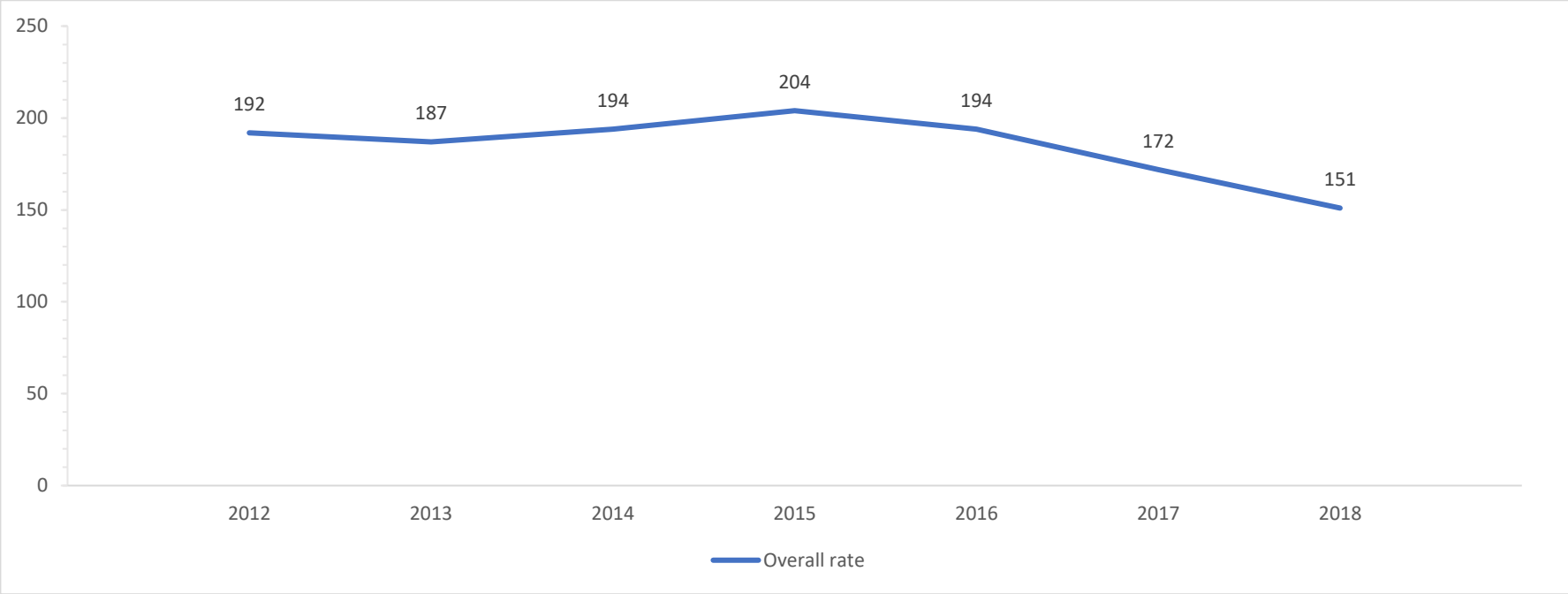


Figure 118: Trends in people filling opioid prescriptions in Delaware, any opioid prescription

Source: Data collected for the Delaware Prescription Monitoring Program (PMP) and reported on the Delaware Department of Health and Social Services [My Healthy Community](#) Data Dashboard.

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Delaware Prescription Monitoring Program, 2012-2018

Trends in People Filling Opioid Prescriptions in Delaware, by Prescription Category (as a rate per 1000 people)

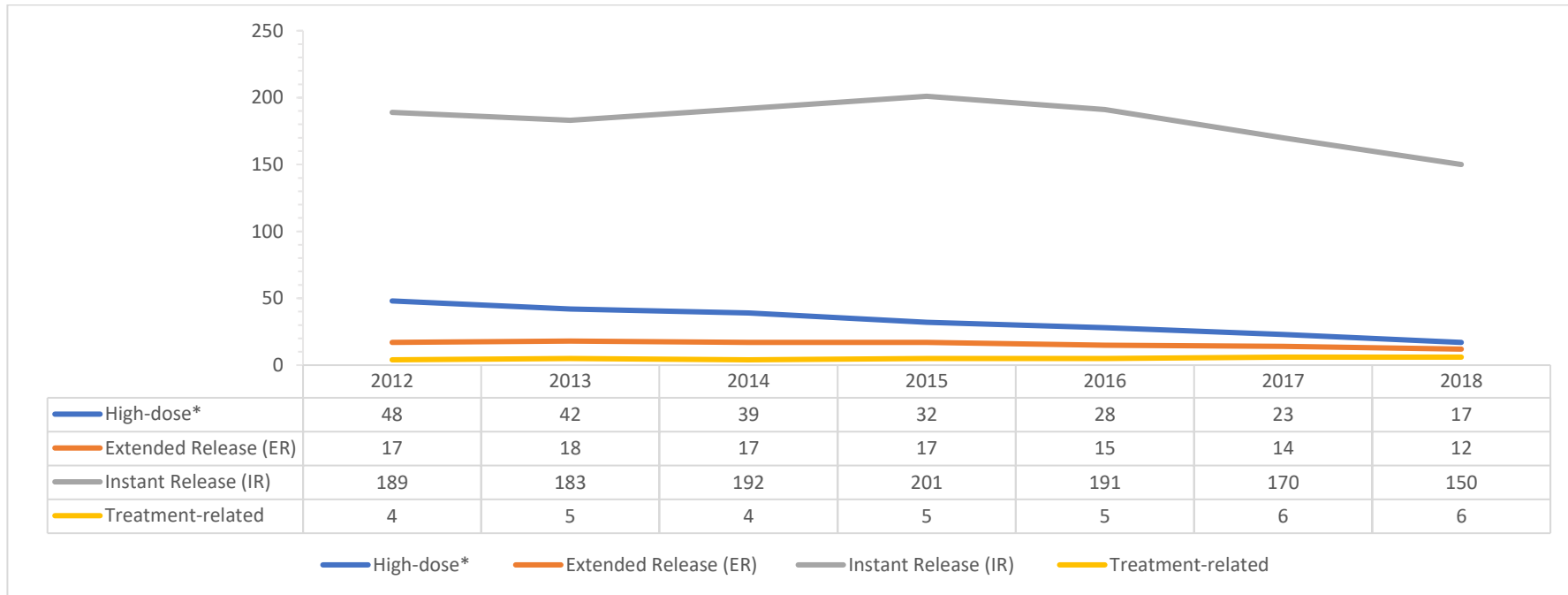


Figure 119: Trends in people filling opioid prescriptions in Delaware, by prescription category

Notes:

*High-dose refers to prescriptions of greater than or equal to 90 MMEs (Morphine Milligram Equivalents).

Source: Data collected by the Delaware Prescription Monitoring Program (PMP) and reported on the Delaware Department of Health and Social Services [My Healthy Community](#) Data Dashboard.

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6. Other Illegal Drugs

National Overview

This report primarily focuses on the four most pressing substance use issues facing Delaware (tobacco, alcohol, marijuana, and opioids) with attention to several groups of youth at disproportionate risk in subsequent chapters. However, many other illicit and prescription drugs are also misused. This list of examples is not exhaustive:

- Depressants: barbiturates, benzodiazepines, gamma hydroxybutyrate (GHB), Rohypnol
- Stimulants: cocaine, methamphetamine, Adderall, Ritalin
- Hallucinogens: lysergic acid diethylamide (LSD), mescaline, salvia, “mushrooms”
- New psychoactive substances (NPS): synthetic cannabinoids
- Other drugs: ecstasy, ketamine, bath salts, dextromethorphan (DXM), steroids, inhalants

These substances have less public health implications than tobacco, alcohol, marijuana, and opioids, not because they are less dangerous, but because they impact a smaller population of people. Misuse of these substances comes with steep risks, including the potential for: overdose; addiction; the drug to be mixed with other dangerous products (such as fentanyl in cocaine); drug interactions; and serious mental impairment that may lead to the increased likelihood of victimization, physical altercations, dangerous accidents, and/or criminal behavior.

Delaware Overview

According to the National Survey on Drug Use and Health (NSDUH, 2017-2018) estimates, in Delaware, approximately 3.5% of all people over the age of 12 used an illicit drug, not including marijuana, in the past month. Broken down by age, 2.15% of Delaware youth between ages 12 to 17, 6.19% of adults ages 18 to 25, and 3.2% of adults over the age of 26 report using an illicit drug (misuse of prescription psychotherapeutics, cocaine (including crack), heroin, hallucinogens, inhalants, or methamphetamine) in the past month. The 2019 Delaware School Survey (DSS) indicates that 3% of 8th grade students and 5% of 11th grade students report use of an illicit drug (other than marijuana) in the past month.

Crack/cocaine has particularly troubling health implications. Cocaine is very addictive and may lead to various long-term health concerns as well as possible overdose. According to the U.S. Centers for Disease Control and Prevention (CDC), the age-adjusted rate of overdose deaths involving cocaine are on the rise in the U.S., tripling from 1.4 per 100,000 people in 2012 to 4.5 per 100,000 in 2018 (Hedegaard, Minino & Warner, 2020). Fentanyl has also been found mixed with cocaine, which increases the risk of overdose and death. The 2017-2018 NSDUH estimates that approximately 2.2% of Delaware adults age 12 and older have used cocaine in the past year, with adults aged 18 to 25 reporting highest rates of use (6.88%). Approximately 5% of all drug treatment admissions to publicly funded treatment programs in the state were primarily due to cocaine use (Treatment Episode Data Set [TEDS], 2019).

Synthetic cannabinoids, referred to as synthetic marijuana or “fake weed,” are human-made chemicals that are similar to those found in the marijuana plant. Although they are sometimes mistakenly considered safe alternatives to marijuana, they are unsafe and may have more powerful, unpredictable, and possibly life-threatening effects. Synthetic cannabinoids are sometimes sprayed on plant material or sold as liquid that can be vaporized and used in electronic cigarettes or similar devices. Six percent of 8th and 12% of 11th grade students report using synthetic marijuana at least once in their lifetime, while 2% of 8th and 4% of 11th graders report past month use on the 2019 Delaware School Survey.

Among Delaware 5th graders responding to the 2019 Delaware School Survey, 8% of students report a lifetime use of inhalants, 3% report a past year use rate, and 1% report inhaling a substance such as glue, sprays, or gasoline in the past month.

**National Survey on Drug Use and Health
Selected Drug Use in Delaware, by Age Group
Annual Averages Based on 2017-2018
(in percentages) ^a**

Measure	Total 12 or Older	AGE GROUP		
		12-17	18-25	26 or Older
ILLICIT DRUGS				
Past Month Illicit Drug Use ^b	13.13	9.90	28.48	11.25
Past Month Use of Illicit Drugs Other Than Marijuana	3.46	2.15	6.19	3.20
Past Year Cocaine Use	2.20	0.37	6.88	1.72

Figure 120: Selected drug use, Delaware, by age group

Notes:

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

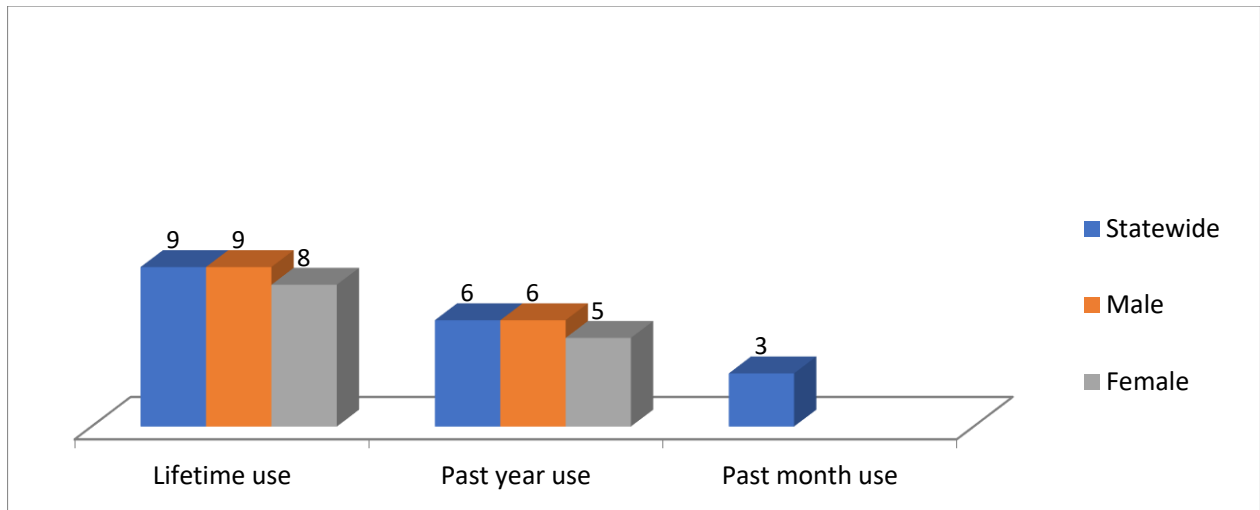
^b“Illicit Drug Use” includes the misuse of prescription psychotherapeutics or the use of marijuana, cocaine (including crack), heroin, hallucinogens, inhalants, or methamphetamine. Misuse of prescription psychotherapeutics is defined as use in any way not directed by a doctor, including use without a prescription of one's own; use in greater amounts, more often, or longer than told; or use in any other way not directed by a doctor. Prescription psychotherapeutics do not include over-the-counter drugs.

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](#)

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2019 Delaware School Survey

Other Illegal Drug ^a Use among Delaware 8th Graders (in percentages)



	Lifetime Use	Past-Year Use	Past-Month Use
Statewide	9	6	3
Male	9*	6*	-
Female	8*	5*	-

Figure 121: Other illegal drug use, 8th graders

Notes:

^a "Other illegal drugs" includes ecstasy, hallucinogens, street uppers, inhalants, cocaine, crack, heroin, and synthetic marijuana used to get high.

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

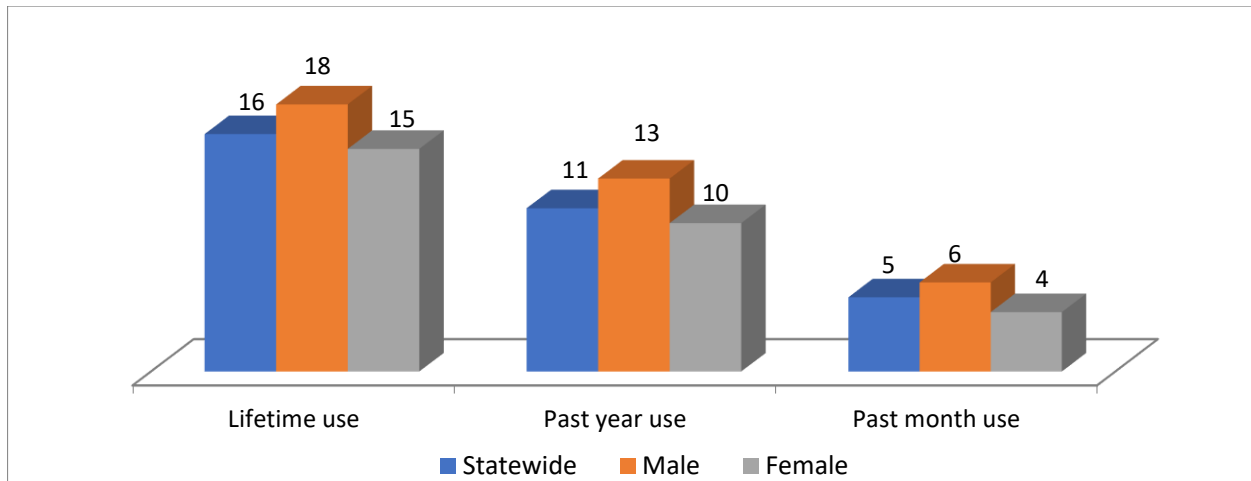
*Estimates were not statistically significant at the p<.05 level.

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware School Survey

Other Illegal Drug ^a Use among Delaware 11th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use
Statewide	16	11	5
Males	18*	13*	6*
Females	15*	10*	4*

Figure 122: Other illegal drug use, 11th graders

Notes:

^a "Other illegal drugs" includes ecstasy, hallucinogens, street uppers, inhalants, cocaine, crack, heroin, and synthetic marijuana used to get high.

"-" indicates that 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. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Monitoring the Future

National Trends in Annual Prevalence: Any Illicit Drug (other than marijuana) 8th, 10th, and 12th Grade (in percentages)

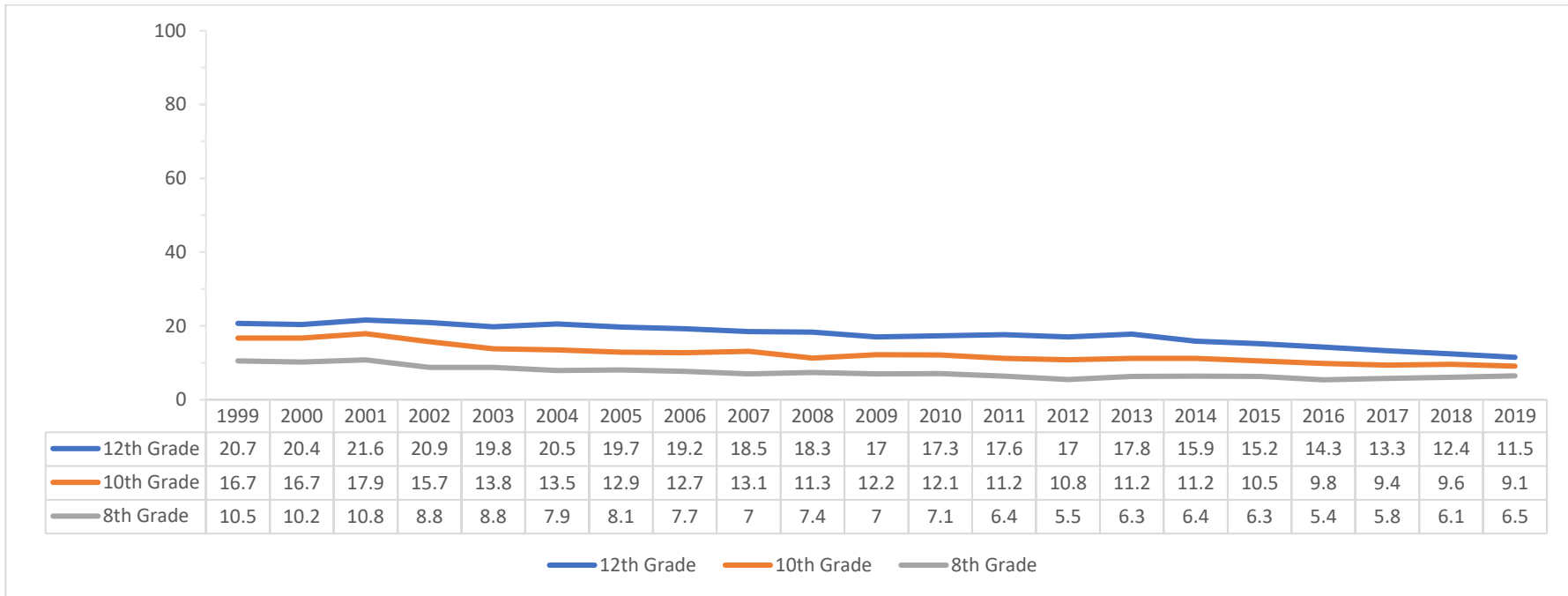


Figure 123: National trends in annual prevalence of any illicit drug use (other than marijuana), 8th, 10th, and 12th grade

Note: Any illicit drug is defined by the Monitoring the Future study as LSD, other hallucinogens, crack, cocaine, heroin, or any use of other narcotics, amphetamines, sedatives, or tranquilizers not under a doctor's orders.

Source: ["National Survey Results on Drug Use, 1975-2019." Monitoring the Future \(MTF\). University of Michigan.](#)

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National Survey of Drug Use and Health
Illicit Drug Use Other than Marijuana in Past Month, by Age Group and State
2016-2017 and 2017-2018
(in percentages)^a

State	12 or Older			AGE GROUP (Years)								
				12-17			18-25			26 or Older		
	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b	2016-2017	2017-2018	<i>p</i> value ^b
Total U.S.	3.38	3.30	.283	2.43	2.39	.738	7.07	6.56	.005	2.88	2.88	1.000
Northeast	3.41	3.26	.238	2.05	2.17	.402	7.74	7.08	.039	2.86	2.78	.585
Delaware	3.41	3.46	.892	2.31	2.15	.669	6.61	6.19	.487	3.05	3.20	.713

Figure 124: Illicit drug use other than marijuana, past month, by age group and state

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.

“Illicit Drug Use Other Than Marijuana” includes the misuse of prescription psychotherapeutics or the use of cocaine (including crack), heroin, hallucinogens, inhalants, or methamphetamine. Misuse of prescription psychotherapeutics is defined as use in any way not directed by a doctor, including use without a prescription of one's own; use in greater amounts, more often, or longer than told; or use in any other way not directed by a doctor. Prescription psychotherapeutics do not include over-the-counter drugs.

Source: [“National Survey on Drug Use and Health: Comparison of 2016-2017 and 2017-2018 Population Percentages \(50 States and District of Columbia\).” Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.](#)

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National Survey of Drug Use and Health
Illicit Drug Use in Past Month, by Age Group and State
2016-2017 and 2017-2018
(in percentages)^a

State	AGE GROUP (Years)											
	12 or Older			12-17			18-25			26 or Older		
	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b	2016-2017	2017-2018	p value ^b
Total U.S.	10.90	11.43	.000	7.88	7.96	.654	23.69	24.04	.280	9.18	9.82	.000
Northeast	11.55	11.88	.167	8.06	8.31	.459	27.12	26.53	.379	9.45	9.96	.068
Delaware	11.71	13.13	.022	9.71	9.90	.854	26.00	28.48	.111	9.80	11.21	.049

Figure 125: Illicit drug use, past month, by age and state

Notes:

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

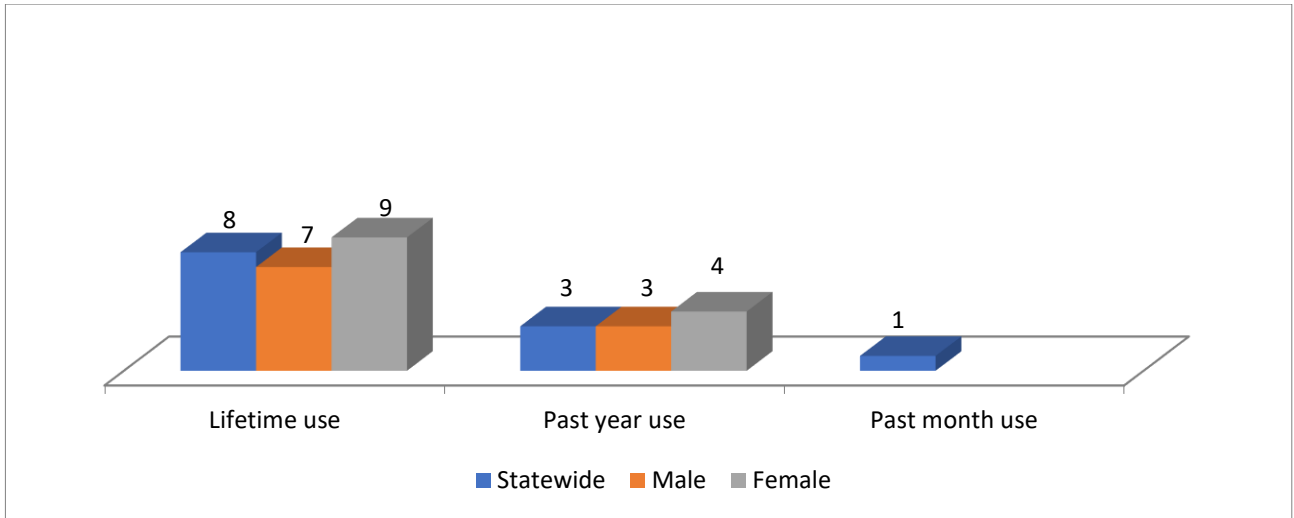
^b p value: Bayes significance levels for the null hypothesis of no change between the 2016-2017 and 2017-2018 population percentages.

“Illicit Drug Use” includes the misuse of prescription psychotherapeutics or the use of marijuana, cocaine (including crack), heroin, hallucinogens, inhalants, or methamphetamine. Misuse of prescription psychotherapeutics is defined as use in any way not directed by a doctor, including use without a prescription of one's own; use in greater amounts, more often, or longer than told; or use in any other way not directed by a doctor. Prescription psychotherapeutics do not include over-the-counter drugs.

Source: [“National Survey on Drug Use and Health: Comparison of 2016-2017 and 2017-2018 Population Percentages \(50 States and District of Columbia\).” Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.](#)

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2019 Delaware School Survey Inhalant Use among Delaware 5th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use
Statewide	8	3	1
Male	7	3*	-
Female	9	4*	-

Figure 126: Inhalant use, 5th graders

Notes:

"-" indicates that 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. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Monitoring the Future

National Trends in Annual Prevalence: Inhalants

8th, 10th, and 12th Grade

(in percentages)

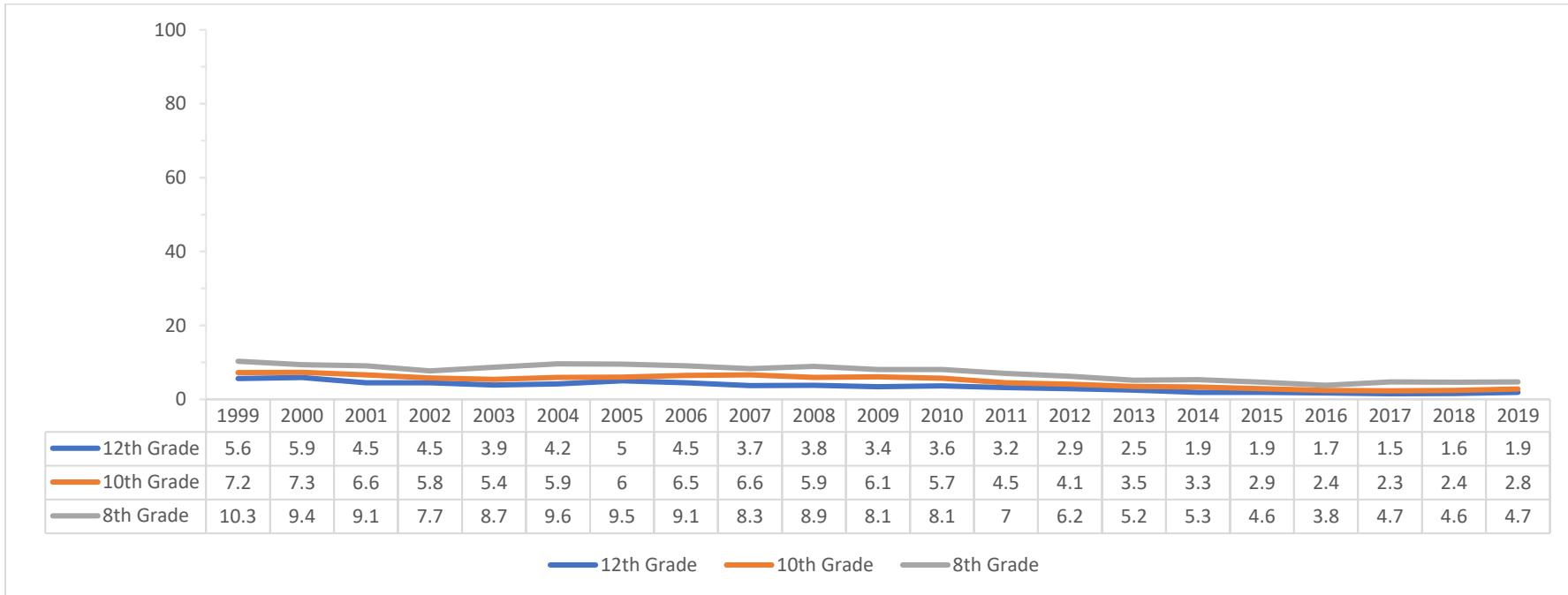


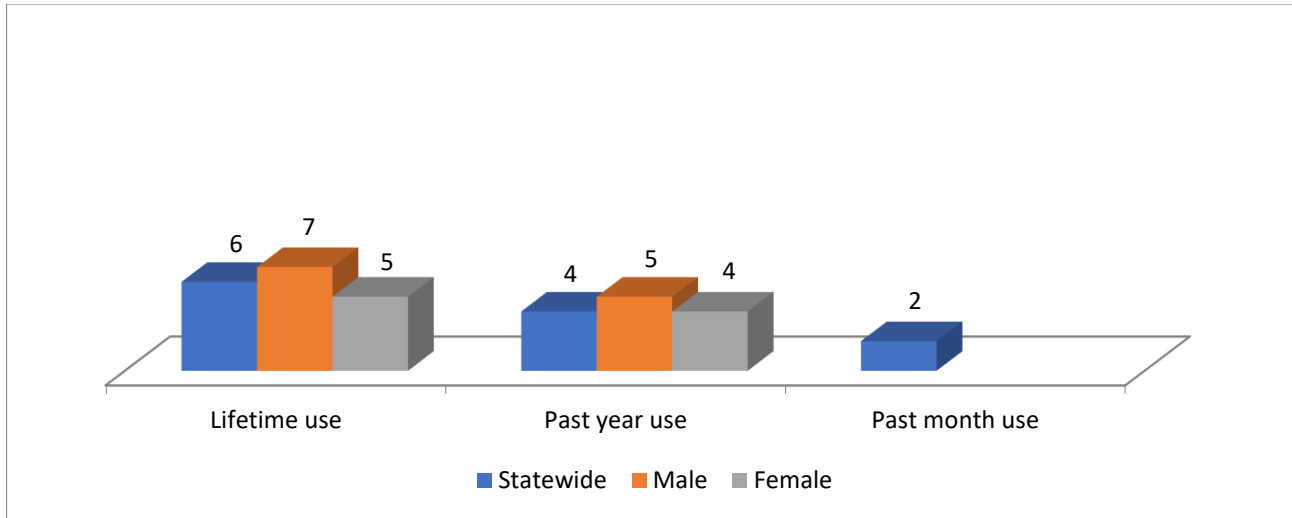
Figure 127: National trends in annual prevalence of inhalant use, 8th, 10th, and 12th grade

Source: ["National Survey Results on Drug Use, 1975-2019." Monitoring the Future \(MTF\). University of Michigan.](#)

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2019 Delaware School Survey

Synthetic Marijuana Use among Delaware 8th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use
Statewide	6	4	2
Male	7*	5*	-
Female	5*	4*	-

Figure 128: Synthetic marijuana use, 8th grade

Notes:

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

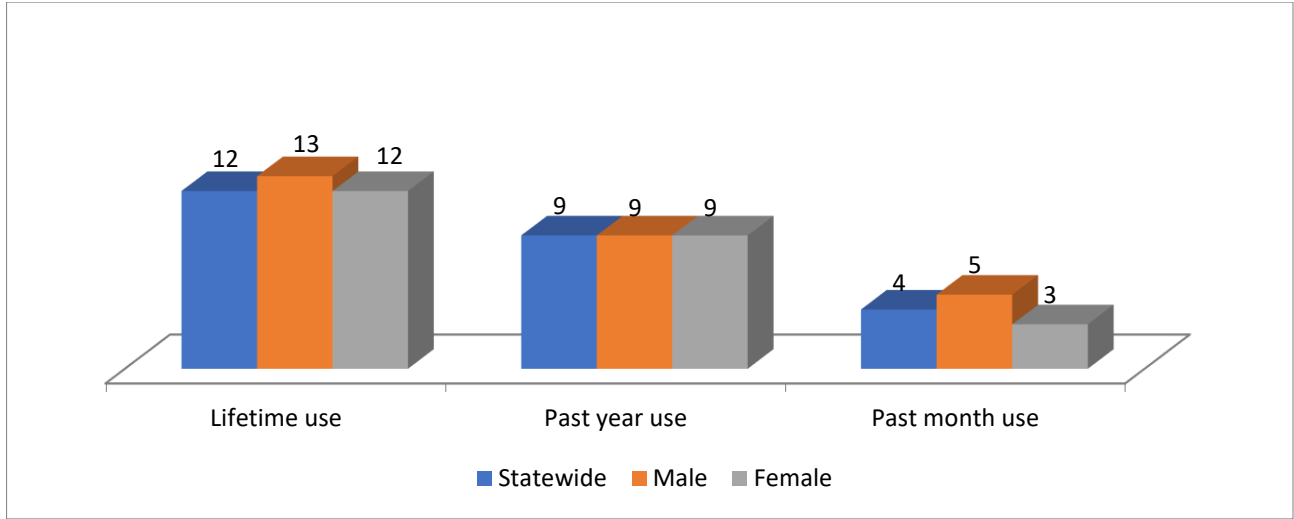
*Estimates were not statistically significant at the $p < .05$ level.

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware School Survey

Synthetic Marijuana Use among Delaware 11th Graders (in percentages)



	Lifetime Use	Past Year Use	Past Month Use
Statewide	12	9	4
Male	13*	9*	5
Female	12*	9*	3

Figure 129: Synthetic marijuana use, 11th graders

Notes:

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Monitoring the Future

National Trends in Annual Prevalence: Synthetic Marijuana 8th, 10th, and 12th Grade (in percentages)

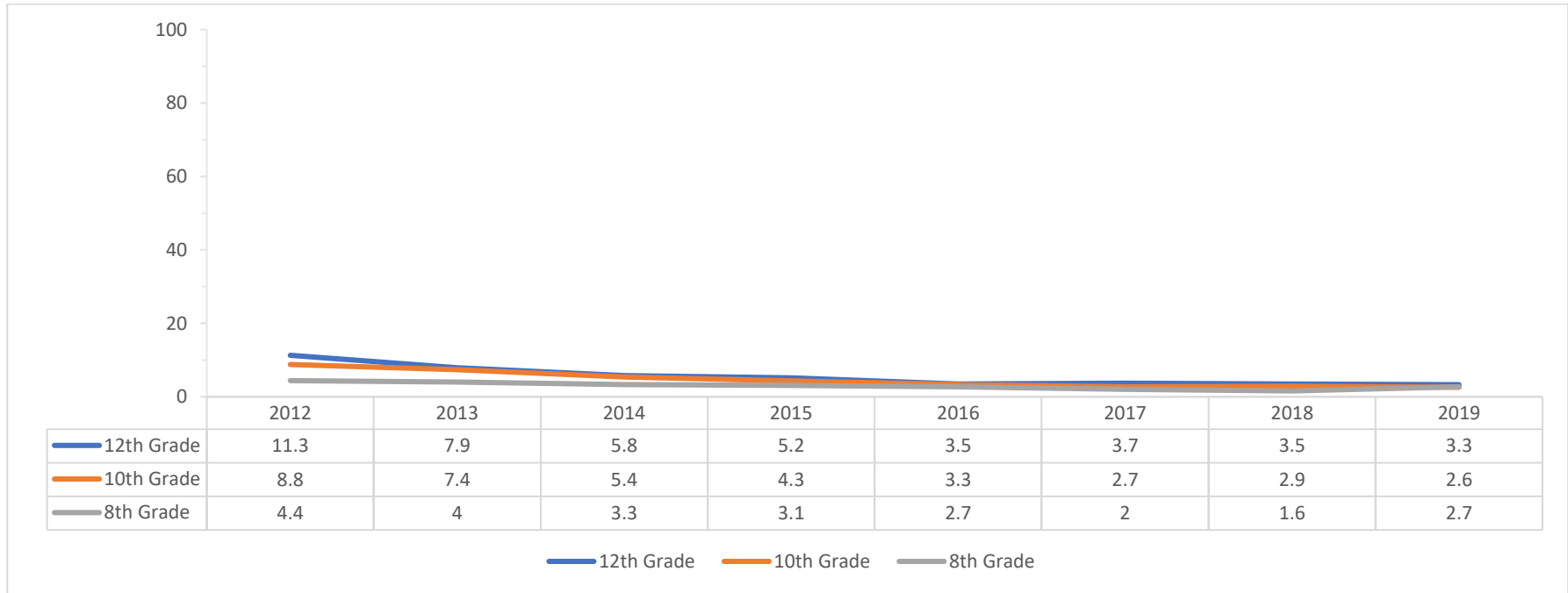
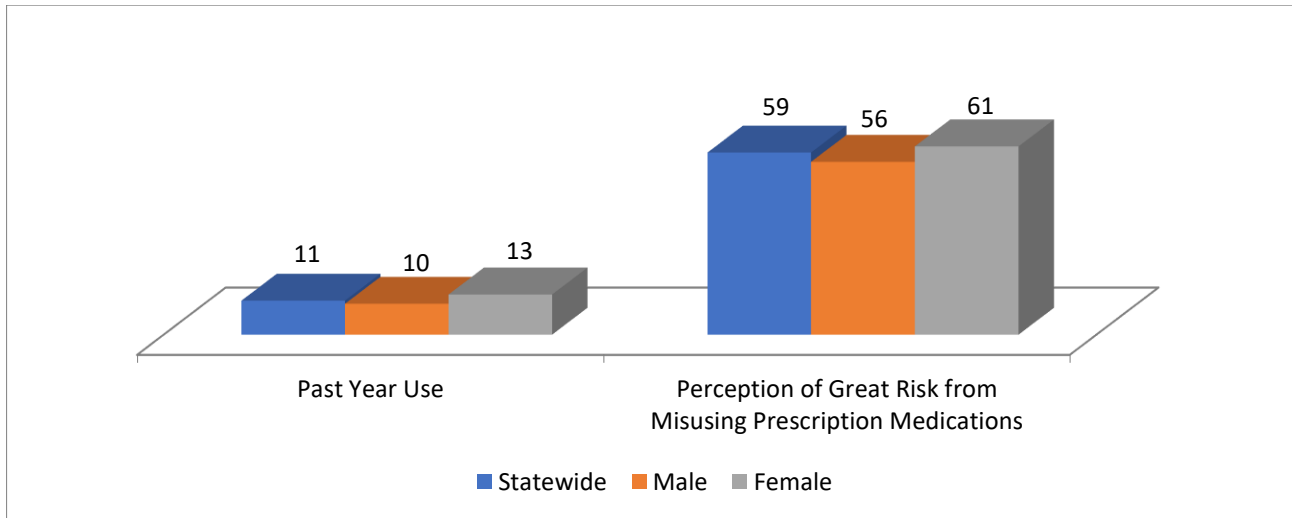


Figure 130: National trends in annual prevalence of synthetic marijuana use, 8th, 10th, and 12th grade

Source: ["National Survey Results on Drug Use, 1975-2019." Monitoring the Future \(MTF\). University of Michigan.](#)

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2019 Delaware School Survey Medication Misuse^a among 8th Grade Students (in percentages)



	Lifetime Use	Perception of Great Risk from Prescription Misuse
Statewide	11	59
Male	10*	56
Female	13*	61

Figure 131: Medication Misuse and Perceptions of Great Risk, 8th grade

Notes:

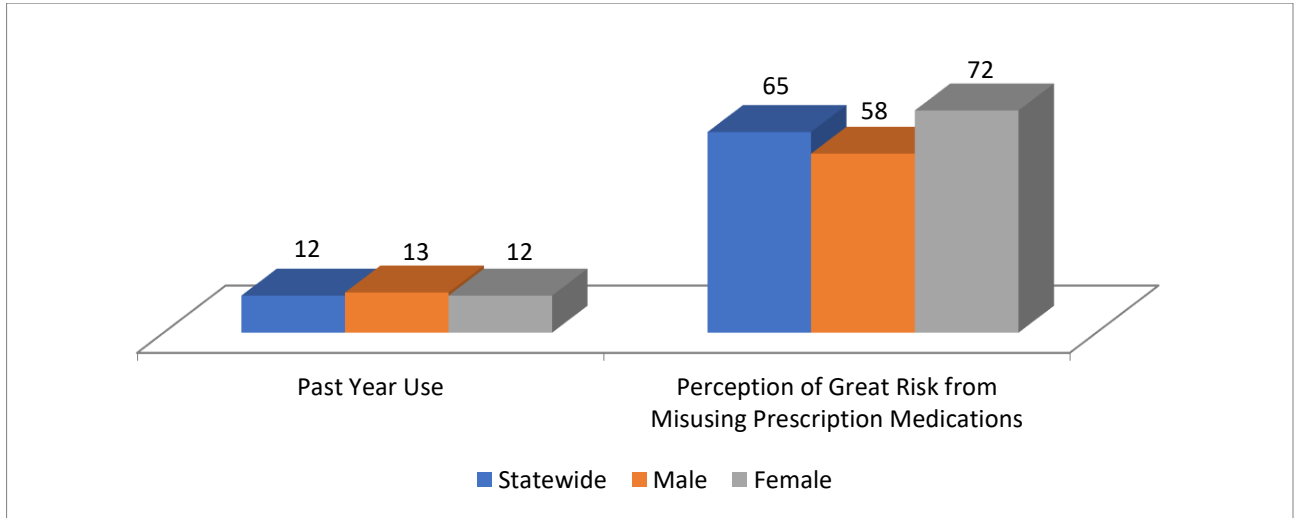
^aMedication misuse is defined as the use of any prescription medications such as painkillers, stimulants (ADHD medications and diet pills), steroids, tranquilizers, sleeping pills in a way other than prescribed, as well as the use of any over-the-counter medications, such as cough syrups, to get high.

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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2019 Delaware School Survey Medication Misuse^a among 11th Grade Students (in percentages)



	Lifetime Use	Perception of Great Risk from Prescription Misuse
Statewide	12	65
Male	13*	58
Female	12*	72

Figure 132: Medication Misuse and Perceptions of Great Risk, 11th grade

Notes:

^aMedication misuse is defined as the use of any prescription medications such as painkillers, stimulants (ADHD medications and diet pills), steroids, tranquilizers, sleeping pills in a way other than prescribed, as well as the use of any over-the-counter medications, such as cough syrups, to get high.

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

Source: [Center for Drug & Health Studies. \(2019\). Delaware School Survey: Secondary \[Annual Survey\]. University of Delaware.](#)

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Monitoring the Future

National Trends in Past Month Prevalence: Prescription Misuse Among 12th Grade Students (in percentages)

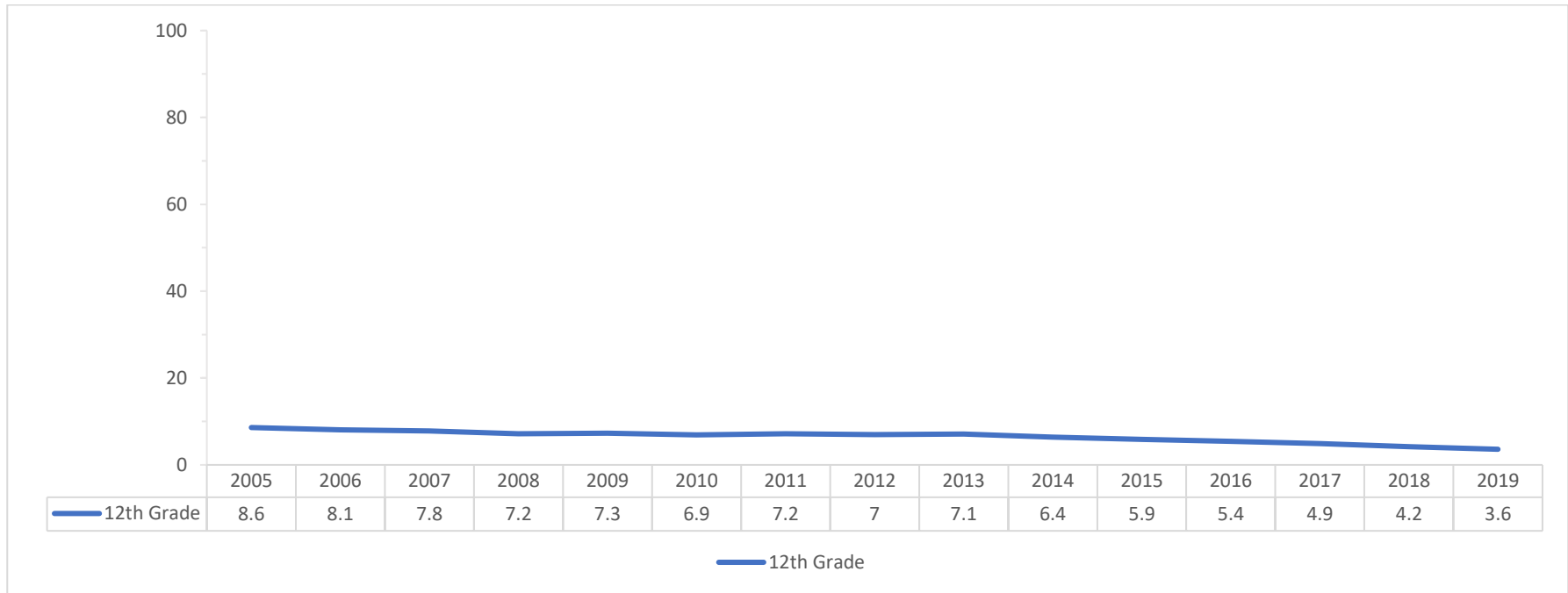


Figure 133: National trends in past month prevalence of prescription misuse, 12th grade

Source: ["National Survey Results on Drug Use, 1975-2019." Monitoring the Future \(MTF\). University of Michigan.](#)

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2019 Delaware Youth Risk Behavior Survey Perceptions of Moderate to Great Risk from Prescription Drug Misuse among High School Students (in percentages)



Figure 134: Perceptions of risk, prescription drug misuse, by sex, grade, and race/ethnicity, HS

Note:

Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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Delaware Treatment Episode Dataset (TEDS), Admissions, 2019

Treatment Admissions by Primary Substance at Admission

Primary Substance at Admission	% of Admissions
Alcohol Only	10.7
Alcohol with Secondary Drug	8.2
Heroin	48.8
Other Opiates	7.1
Cocaine (smoked)	3.2
Cocaine (other route)	1.9
Marijuana	8.1
Amphetamines	0.7
Other Stimulants	0.0
Tranquilizers	0.4
Sedatives	0.1
Hallucinogens	0.3
PCP	0.3
Inhalants	0.0
Other/Unknown	10.2

Figure 135: Delaware treatment admissions by primary substance

Source: [“Delaware TEDS admissions aged 12 years and older, by primary substance use and gender, age at admission, race, and ethnicity: Percent, 2019.” Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set \(TEDS\). Based on administrative data reported by states to TEDS through July 1, 2020.](#)

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Delaware Treatment Episode Dataset (TEDS), Admissions, 2019

Primary Substance at Admission by Sex

Primary Substance at Admission	% Male	% Female
All Admissions	64.1	35.9
Alcohol Only	73.4	26.6
Alcohol with Secondary Drug	73.2	26.8
Heroin	62.5	37.5
Other Opiates	54.7	45.3
Cocaine (smoked)	58.4	41.6
Cocaine (other route)	65.0	35.0
Marijuana	69.5	30.5
Amphetamines	63.6	36.4
Other Stimulants	100.0	0.0
Tranquilizers	46.6	53.4
Sedatives	33.3	66.7
Hallucinogens	77.1	22.9
PCP	70.4	29.6
Inhalants	80.0	20.0
Other/Unknown	59.1	40.6

Figure 136: Delaware treatment admissions by primary substance and sex

Source: [“Delaware TEDS admissions aged 12 years and older, by primary substance use and gender, age at admission, race, and ethnicity: Percent, 2019.”](#) Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Based on administrative data reported by states to TEDS through July 1, 2020.

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Delaware Treatment Episode Dataset (TEDS), Admissions, 2019
Primary Substance at Admission by Age Group
(in percentages)

Primary Substance at Admission	12-17	18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	65+
All Admissions	0.5	2.4	10.5	20.8	18.1	14.6	8.4	8.1	7.6	5.3	2.3	1.3
Alcohol Only	0.0	0.3	4.5	7.4	11.1	11.3	9.7	13.8	17.1	13.7	6.5	4.7
Alcohol with Secondary Drug	0.1	1.6	7.6	12.8	13.2	14.5	11.4	14.3	13.5	7.0	3.2	0.8
Heroin	0.0	1.1	9.9	25.8	21.9	15.9	8.4	6.8	5.1	3.3	1.2	0.5
Other Opiates	0.0	1.0	100.1	22.1	23.5	15.8	6.9	5.3	6.6	4.8	1.9	1.9
Cocaine (smoked)	0.0	0.4	5.6	14.1	14.7	12.7	8.4	12.7	14.5	11.4	5.0	0.4
Cocaine (other route)	0.0	0.7	8.6	15.8	12.2	21.8	11.2	9.6	10.9	5.3	3.3	0.7
Marijuana	4.3	12.2	22.9	22.0	12.4	11.3	4.3	3.4	3.2	2.2	1.2	0.4
Amphetamines	0.0	3.4	7.6	14.4	23.7	13.6	8.5	15.3	5.9	5.9	1.7	0.0
Other Stimulants	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0
Tranquilizers	0.0	5.2	12.1	31.0	12.1	13.8	6.9	8.6	3.4	5.2	1.7	0.0
Sedatives	0.0	0.0	22.2	33.3	0.0	22.2	22.2	0.0	0.0	0.0	0.0	0.0
Hallucinogens	0.0	0.0	12.5	31.3	16.7	20.8	6.3	8.3	2.1	2.1	0.0	0.0
PCP	0.0	0.0	1.9	18.5	37.0	27.8	5.6	5.6	1.9	0.0	1.9	0.0
Inhalants	0.0	0.0	0.0	0.0	20.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0
Other/Unknown	1.4	5.3	14.4	18.6	13.8	11.9	8.8	7.2	6.8	6.1	3.1	2.7

Figure 137: Delaware treatment admissions by primary substance and age group

Source: [Delaware TEDS admissions aged 12 years and older, by primary substance use and gender, age at admission, race, and ethnicity: Percent, 2019. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set \(TEDS\). Based on administrative data reported by states to TEDS through July 1, 2020.](#)

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Delaware Treatment Episode Dataset (TEDS), Admissions, 2019
Primary Substance at Admission by Race and Ethnicity
(in percentages)

Primary Substance at Admission	White	Black or African-American	American Indian or Alaskan Native	Asian or Native Hawaiian or Other Pacific Islander	Unknown		Hispanic or Latino	Not Hispanic or Latino
All Admissions	67.2	26.6	0.6	2.0	3.6		6.0	92.2
Alcohol Only	72.4	21.8	0.8	2.2	2.8		6.9	92.7
Alcohol with Secondary Drug	61.8	31.1	0.9	1.6	4.5		4.0	94.4
Heroin	78.0	17.7	0.3	1.7	2.3		5.9	93.6
Other Opiates	65.8	29.3	0.4	2.0	2.5		5.6	93.5
Cocaine (smoked)	45.8	50.6	0.4	0.6	2.6		4.6	93.0
Cocaine (other route)	53.8	38.9	0.3	2.0	5.0		5.6	90.1
Marijuana	36.8	52.1	1.5	3.7	5.9		8.2	89.4
Amphetamines	86.4	10.2	0.8	0.0	2.5		0.0	98.3
Other Stimulants	100.0	0.0	0.0	0.0	0.0		0.0	100.0
Tranquilizers	62.1	27.6	0.0	5.9	3.4		6.9	89.7
Sedatives	77.8	11.1	0.0	0.0	11.1		0.0	100.0
Hallucinogens	62.5	31.3	2.1	2.1	2.1		6.3	93.8
PCP	3.7	85.2	3.7	5.6	1.9		9.3	90.7
Inhalants	100.0	0.0	0.0	0.0	0.0		0.0	100.0
Other/Unknown	49.5	38.1	1.0	2.9	8.5		6.7	84.6

Figure 138: Delaware treatment admissions by primary substance and race and ethnicity

Source: [Delaware TEDS admissions aged 12 years and older, by primary substance use and gender, age at admission, race, and ethnicity: Percent, 2019. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set \(TEDS\). Based on administrative data reported by states to TEDS through July 1, 2020.](#)

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Drug Overdose Deaths in Delaware for 2014-2019 by Selected Demographic Characteristics

	2014 N=225	2015 N=234	2016 N=306	2017 N=345	2018 N=400	2019 N=431
LOCATION:						
NEW CASTLE	56%	59%	44%	59%	55%	57%
KENT	18%	16%	18%	11%	13%	12%
SUSSEX	18%	13%	19%	15%	17%	22%
OTHER^A	8%	7%	18%	15%	15%	7%
SEX:						
MALE	64%	61%	69%	69%	71%	72%
FEMALE	36%	39%	31%	31%	29%	28%
RACE:						
WHITE	85%	83%	84%	75%	81%	77%
BLACK	12%	13%	14%	19%	15%	17%
HISPANIC	3%	3%	2%	5%	4%	6%
OTHER	-	-	-	1%	-	-
AGE:						
39 OR YOUNGER	45%	48%	44%	50%	48%	51%
40-50	28%	21%	24%	23%	25%	25%
51 AND OLDER	27%	30%	32%	27%	27%	24%

Figure 139: Drug overdose deaths in Del. by demographic

Notes:

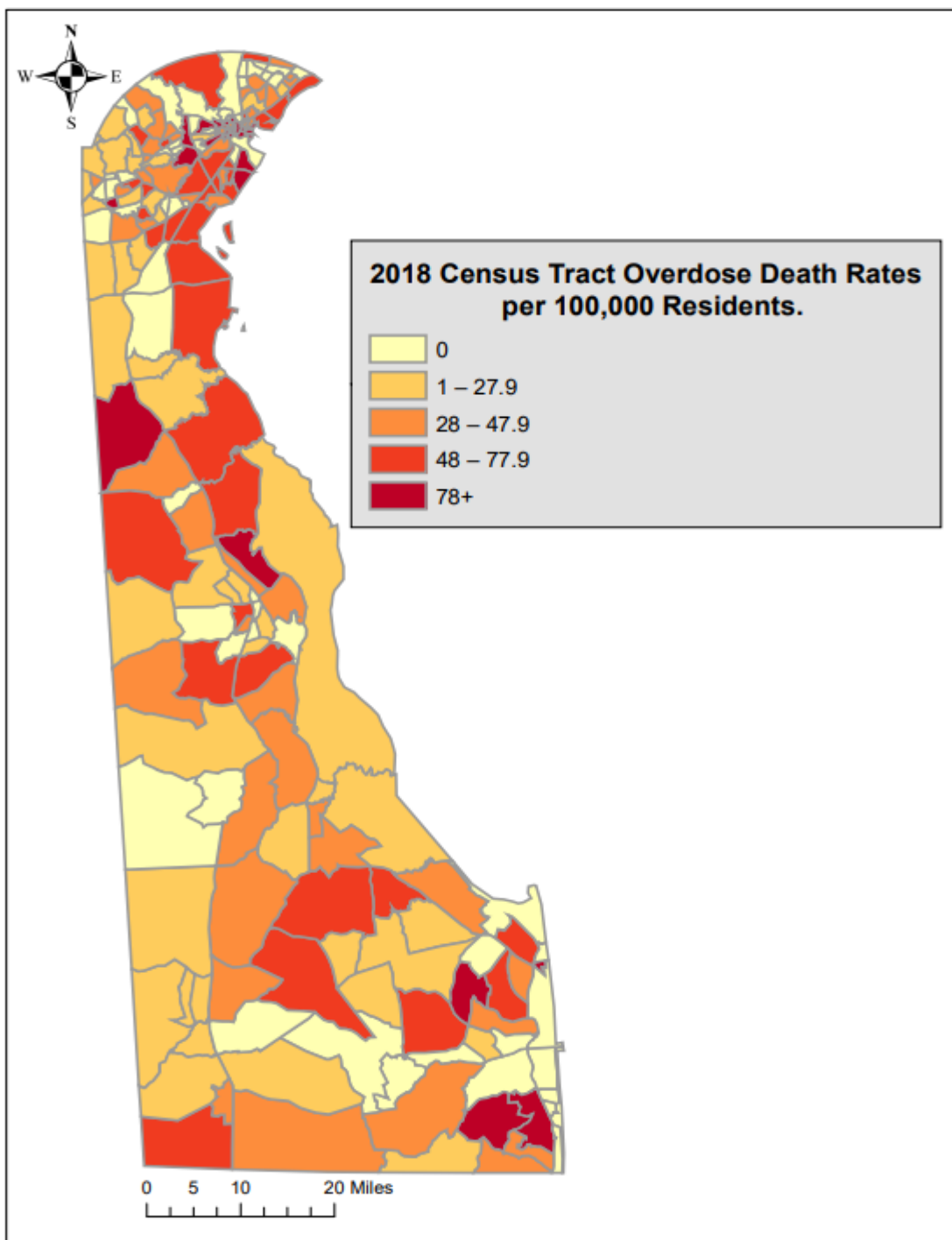
^A County determined by decedents' home address at time of death. "Other" are those with addresses outside of Delaware

"-" means less than 1%

Source: Office of the Chief Medical Examiner, Division of Forensic Medicine, Department of Safety and Homeland Security, State of Delaware

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2018 Delaware Census Tract Overdose Death Rates



Overdose death data was provided by the Delaware Department of Forensic Science.
2010 data from the US Census Bureau was used for age adjustments.
The Delaware Opioid Metric Intelligence Project (DOMIP) is funded by the NIJ.

Figure 140: Map of drug overdose deaths in Delaware by census tracts

Source: [Delaware Opioid Metric Intelligence Project \(DOMIP\)](#)

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7. Substance-Exposed Infants

National Overview

Infants who are born exposed to opioids and other illicit substances (substance-exposed infants, or SEI) are at increased risk for a host of challenges to healthy development. In addition to physical health risks related to direct substance exposure, continued substance use by the parent or caregiver may likely contribute to an unstable home life for the infant. Substance use is often identified among child abuse and neglect cases within child welfare systems (Child Welfare Information Gateway, 2014). Such traumas, in turn, are associated with increases in risk behaviors and negative health outcomes throughout the child's lifespan.

Delaware Overview

In Delaware, the Office of the Child Advocate tracks notifications of SEI and examines associated characteristics. In October 2016, Delaware received a Substance-Exposed Infants In-Depth Technical Assistance (SEI-IDTA) grant from the National Center on Substance Abuse and Child Welfare. Governor Carney's "Action Plan for Delaware," published in January 2017, included the reduction in number of children born exposed to substances as one of his administration's primary policy objectives (Transition Team Report, 2017). In Spring 2018, the Delaware General Assembly passed "Aiden's Law," which requires healthcare professionals to notify the Delaware Division of Family Services (DFS) of substance-exposed births and to provide for a collaborative, coordinated, and multidisciplinary plan of safe care (POSC) for the infant and their affected family or caregivers. As of August 2018, all six Delaware birthing hospitals had implemented POSCs (State of Delaware Child Death Review Commission, 2019).

Parallel to these developments, SEI notifications have increased since 2015. In 2019, 705 notifications of prenatally exposed infants were reported to DFS, up 13% from 2018 (Delaware Office of the Child Advocate, 2020). More than two-thirds involved a single substance exposure, with marijuana the most commonly identified substance. Among the 135 births involving exposure to two substances, marijuana was most prevalent followed by opioids. In cases of polysubstance exposure (three or more substances present at birth) opioids followed by cocaine were most commonly identified.

Among the more dramatic findings, 40% of the mothers who gave birth to prenatally exposed infants report that they themselves have a history of involvement with family services as youths or a history of childhood trauma. More than half also report a mental health condition. Early, coordinated intervention and family support are critical to ameliorating negative impacts. In 2019, POSCs were established for 661 cases with the father identified as a plan participant in 430 of them. Pediatric referrals were made in each of these cases. The following figures highlight key findings from the 2019 program review by the Office of the Child Advocate.

Five Year Comparison of SEI Notifications to DFS, 2015-2019

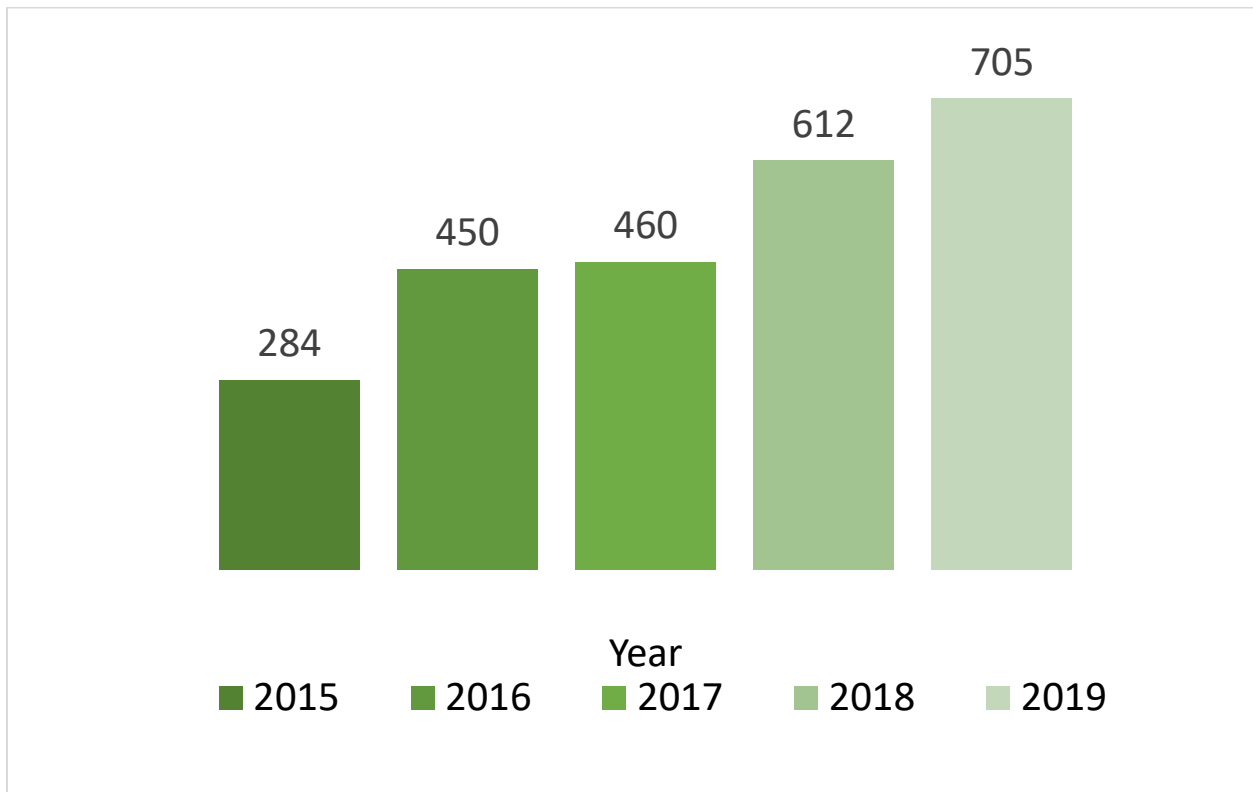


Figure 141: Comparison of SEI birth notifications to DFS

Note:

The figure depicts the annual count of substance exposed infant birth notifications (SEI) made to the Division of Family Services from 2015 to 2019.

Source: Delaware Infants with Prenatal Substance Exposure 2019 Year in Review, Division of Family Services, State of Delaware, Office of the Child Advocate.

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2019 SEI Notifications by County (count and percentage)

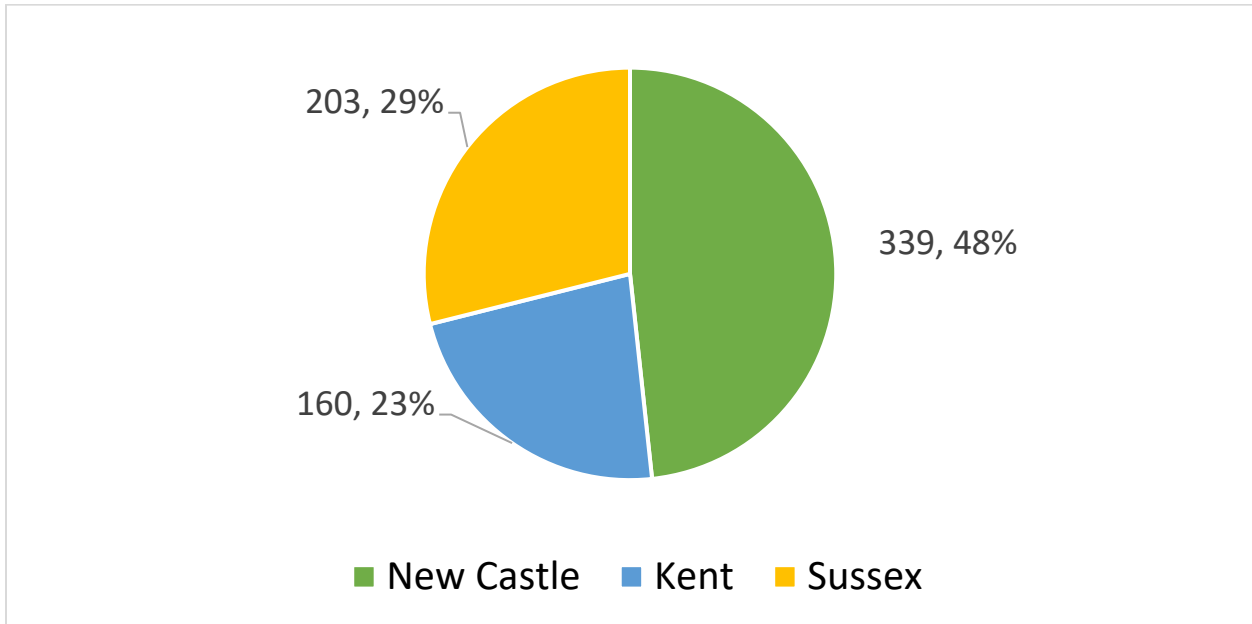


Figure 142: SEI birth notifications by county, 2019

2019 Reports by 1, 2, or 3 Substances (count and percentages)

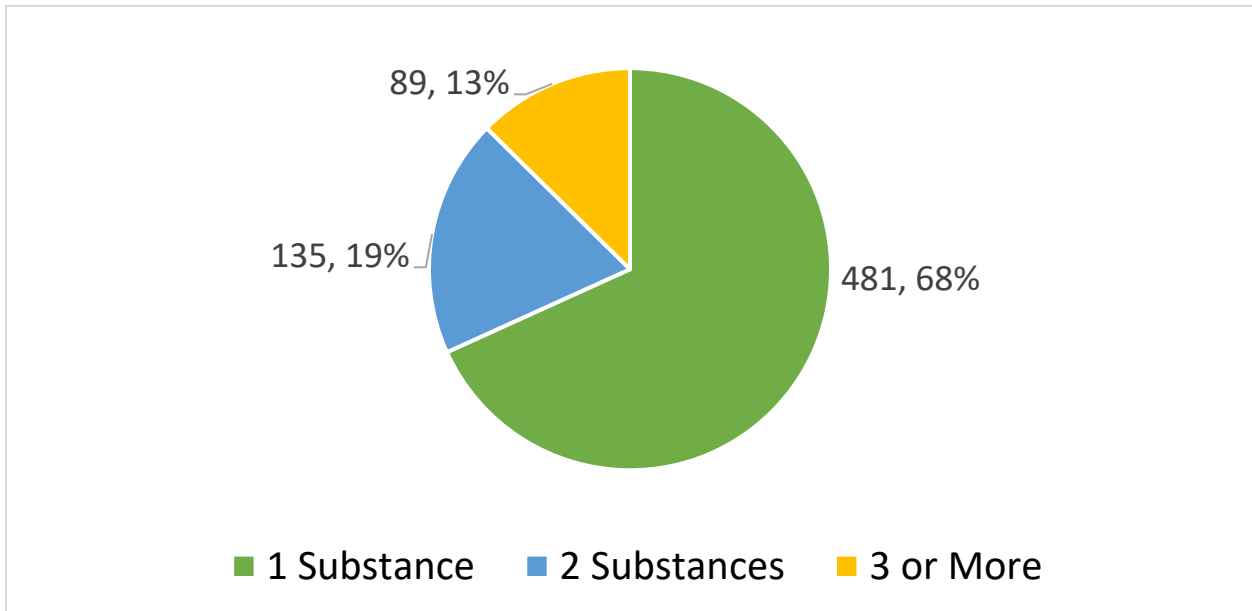


Figure 143: SEI birth notifications by 1, 2, or more substances

Note: The figures include both the count and percentage of a given category.

Source: Delaware Infants with Prenatal Substance Exposure 2019 Year in Review, Division of Family Services, State of Delaware, Office of the Child Advocate.

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2019 SEI Notifications Prevalence of Substances in Single Substance Exposure (n=481)

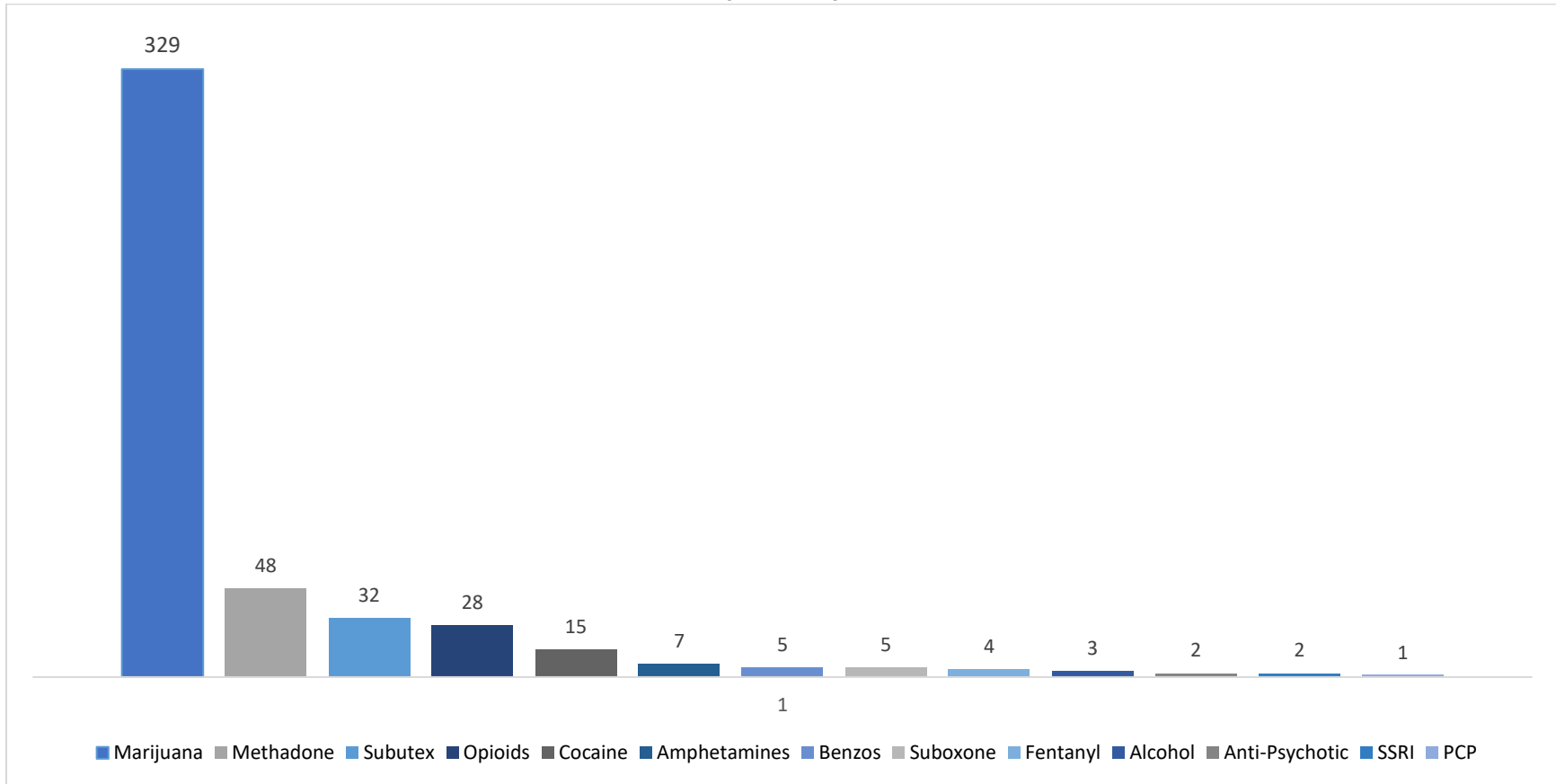


Figure 144: Prevalence of substances in single substance exposure among SEI notifications

Note: The figure includes the count of cases for each identified substance among single substance exposures.

Source: Delaware Infants with Prenatal Substance Exposure 2019 Year in Review, Division of Family Services, State of Delaware, Office of the Child Advocate.

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2019 SEI Notifications Prevalence of Substances in Two Substance Exposure (n=135)

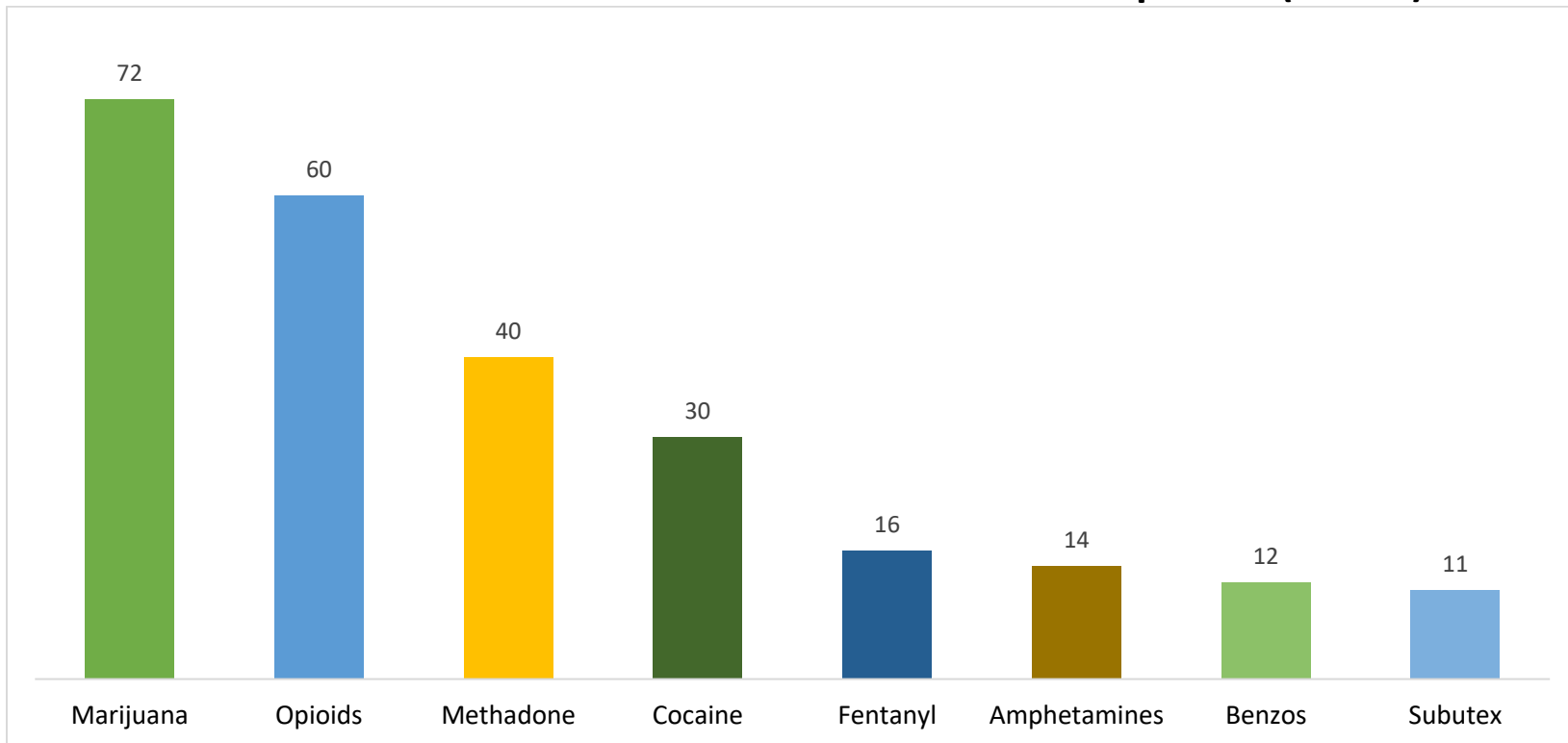


Figure 145: Prevalence of substances in two substance exposure among SEI notifications

Note: The figure includes the count of cases for each identified substance among two substance exposures.

Source: Delaware Infants with Prenatal Substance Exposure 2019 Year in Review, Division of Family Services, State of Delaware, Office of the Child Advocate.

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2019 SEI Notifications Prevalence of Substances in Poly (3 or More) Substance Exposure (n=89)

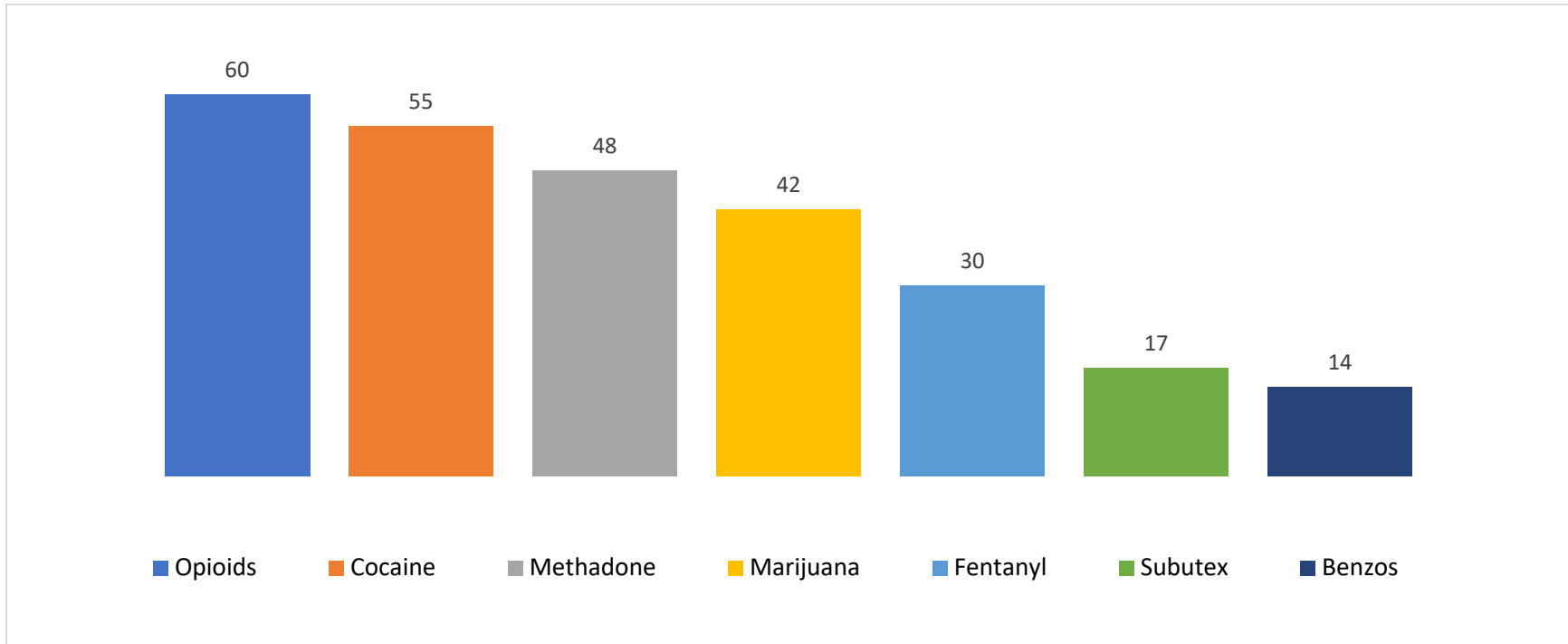


Figure 146: Prevalence of substances in two substance exposure among SEI notifications

Note:

The figure includes the count of cases for each identified substance among poly (3 or more) substance exposures.

Source: Delaware Infants with Prenatal Substance Exposure 2019 Year in Review, Division of Family Services, State of Delaware, Office of the Child Advocate.

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2019 SEI Notifications Maternal Risk Factors, 2017-2019

Risk Factor	2017	2018	2019
DFS History/Trauma as Child	40%	43%	40%
Mental Health Condition	34%	46%	56%
Prior SEI Birth	28%	25%	25%
Prior DFS Substantiation	-	9%	10%
Unknown/Unnamed Father/Partner	-	16%	11%

Figure 147: Table of maternal risk factors among cases involving SEI births

Note:

“-“ No data was gathered for prior Division of Family Services substantiation and unknown/unnamed father or partner in 2017.

Source: Delaware Infants with Prenatal Substance Exposure 2019 Year in Review, Division of Family Services, State of Delaware, Office of the Child Advocate.

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8. Gambling

National Overview

Gambling is defined as risking money, or something else of value, on the outcome of an event that is at least partially determined by chance (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014). While gambling can provide entertainment and function as a pleasurable pastime for many individuals, problem gambling and gambling disorders can present numerous challenges and negative consequences for others. A gambling disorder requires at least four of the following nine criteria: preoccupation with gambling; inability to cut back or control gambling; irritability or restlessness when attempting to cut back or control gambling; risking more money to achieve the desired level of excitement; gambling to cope with emotional problems; “chasing one’s losses” by gambling even more after losing; lying about gambling; jeopardizing relationships or employment due to gambling; and relying on others to solve financial issues caused by gambling (American Psychiatric Association, 2013).

Gambling disorders also correlate with other demographic and behavioral health factors, suggesting that certain populations are more at risk for developing gambling problems. According to a meta-analysis of gambling studies in the U.S. and Canada, researchers from Harvard reported that disordered gambling was most prevalent among young people rather than the general adult population, males rather than females, and among those with concurrent psychiatric disorders (Shaffer, Hall, & Built, 1997). An analysis of data from the National Epidemiologic Survey on Alcohol and Related Conditions found that among individuals who met the criteria for gambling disorder, roughly three-quarters had a co-occurring alcohol use disorder, nearly 40% had another substance use disorder, and the majority also had nicotine dependence. In this same sample, the majority of disordered gamblers also had a mood disorder, anxiety disorder, and/or a personality disorder (Petry, Stinson, & Grant, 2005).

Gambling and problem gambling have been associated with heightened substance use and mental health disorders among younger populations. Studies focusing on the co-occurrence of substance use disorders, mental health disorders, and disordered or problem gambling in college student populations found that among the roughly 5% of students who met the criteria for problem gambling, there were much higher rates of problem drinking, anxiety, and depression compared to the general population of college students (Martin, Usdan, Cremeens, & Vail-Smith, 2014; Martens, Rocha, Cimini, Diaz-Myers, Rivero, & Wulfert, 2009).

Delaware Overview

In the U.S., gambling regulations vary from state to state; in Delaware, most forms of gambling are allowed and there are multiple casinos. However, there are different age restrictions for certain gambling behaviors. Delaware residents must be 18 or older to play charity bingo, purchase lottery tickets or scratch-offs, or make a bet on horses. Individuals must be 21 or older to gamble in casinos or slot machines or on the internet (Delaware Council on Gambling

Problems, 2018). In June 2018, Delaware became the second state to legalize all other sports gambling, following the May Supreme Court decision, *Murphy v. National Collegiate Athletic Association* (Domonoske, 2018). Previously, the only other state to allow sports gambling was Nevada, which had legalized the practice in the early 1990s.

Among youth surveyed in Delaware, 51% of all middle school students and approximately 43% of high school students report that they gambled at least once in the past year. The Youth Risk Behavior Survey considers gambling to include: betting on a dice game; playing the lottery or scratch-off tickets; gambling on the internet; betting on sports or fantasy sports; or betting on a game of personal skill such as pool or a video game. Males report higher rates of gambling than females, particularly at the high school level (52% compared to 34%). Students who report gambling in the past year also tend to report higher rates of substance use than their non-gambling peers at both the middle and high school levels.

2019 Delaware Youth Risk Behavior Survey

Middle School Students Who Report Gambling in the Past Year (in percentages)

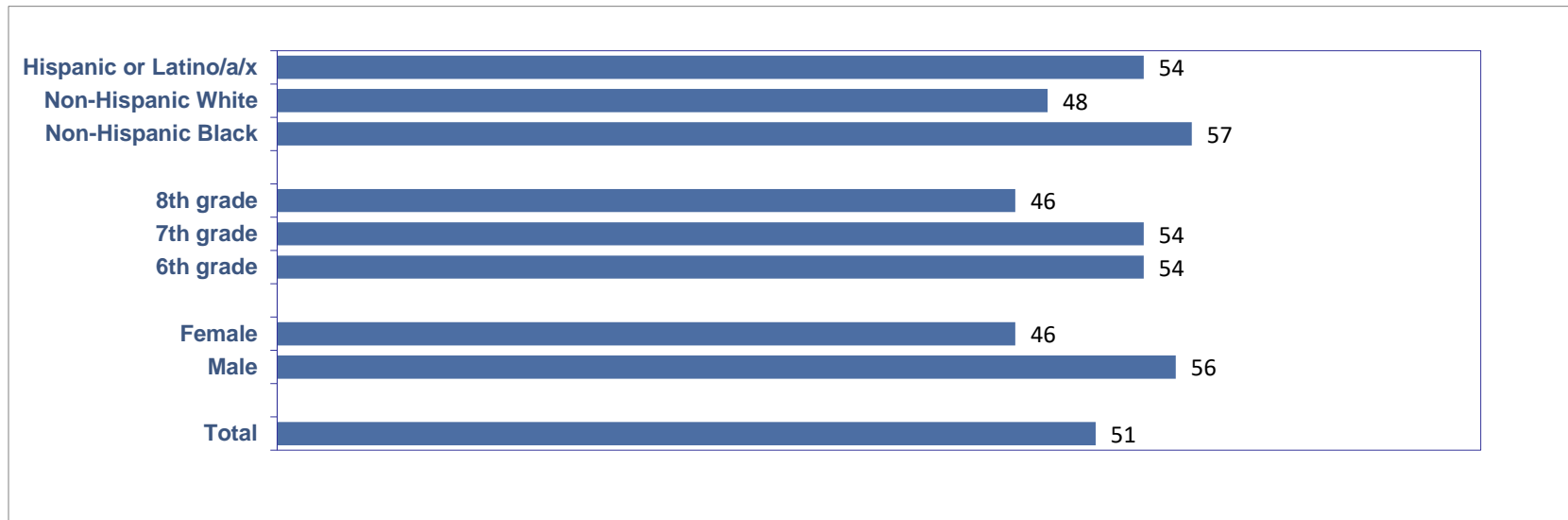


Figure 148: Past year gambling, by sex, grade, and race/ethnicity, MS

Notes:

Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

**Gambling refers to at least one of the following: played the lottery or scratch-off tickets; bet on fantasy sports; bet on individual sports teams; played Bingo for money; bet on dice games such as craps; bet money on a challenge (dare, fight, street race, etc.); played online gambling games for money; bet on video games; bet on games of personal skill such as pool, darts, or basketball.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Gambling and Select Substance Use Among Middle School Students (in percentages)

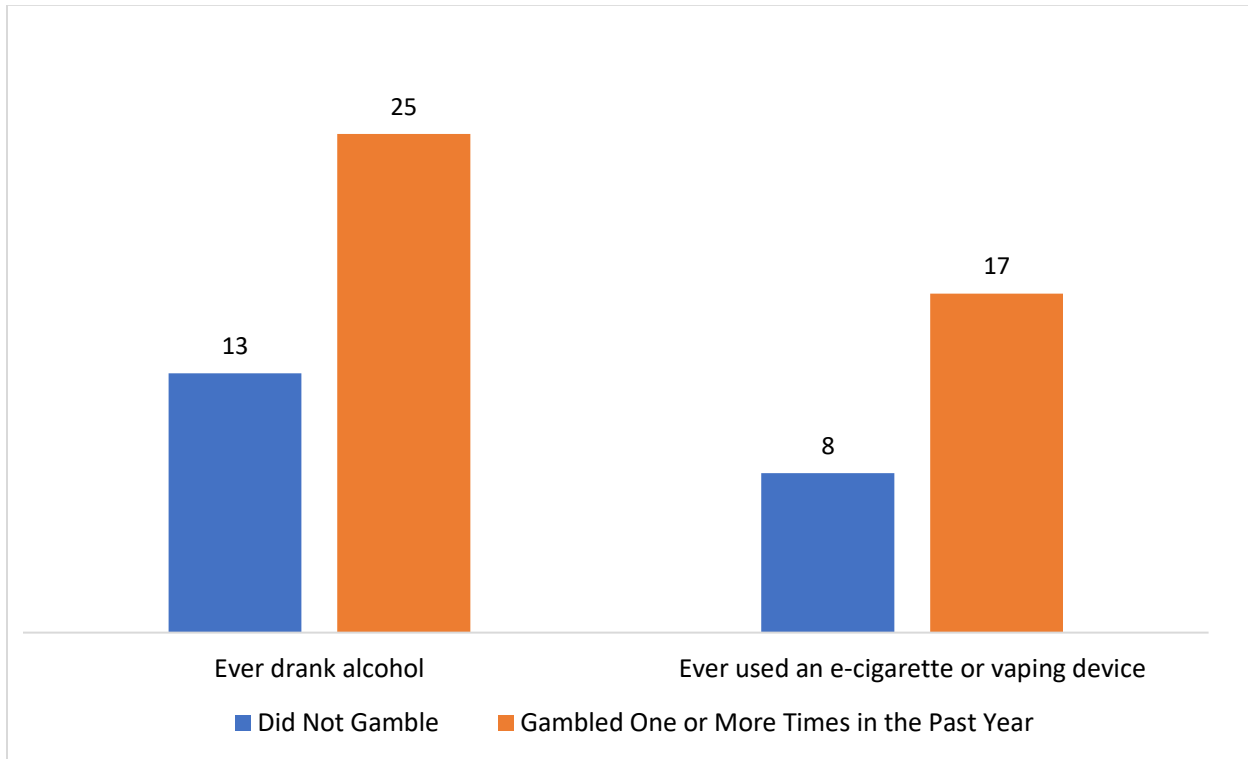


Figure 149: Past year gambling and select substance use, MS

Notes:

*Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

**Gambling refers to at least one of the following: played the lottery or scratch-off tickets; bet on fantasy sports; bet on individual sports teams; played Bingo for money; bet on dice games such as craps; bet money on a challenge (dare, fight, street race, etc.); played online gambling games for money; bet on video games; bet on games of personal skill such as pool, darts, or basketball.

***Estimates for gambling and other substance use (such as marijuana, painkillers, and cigarettes) were too small ($n < 30$) to report with 2019 data.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey

High School Students who report Gambling in the Past Year (in percentages)

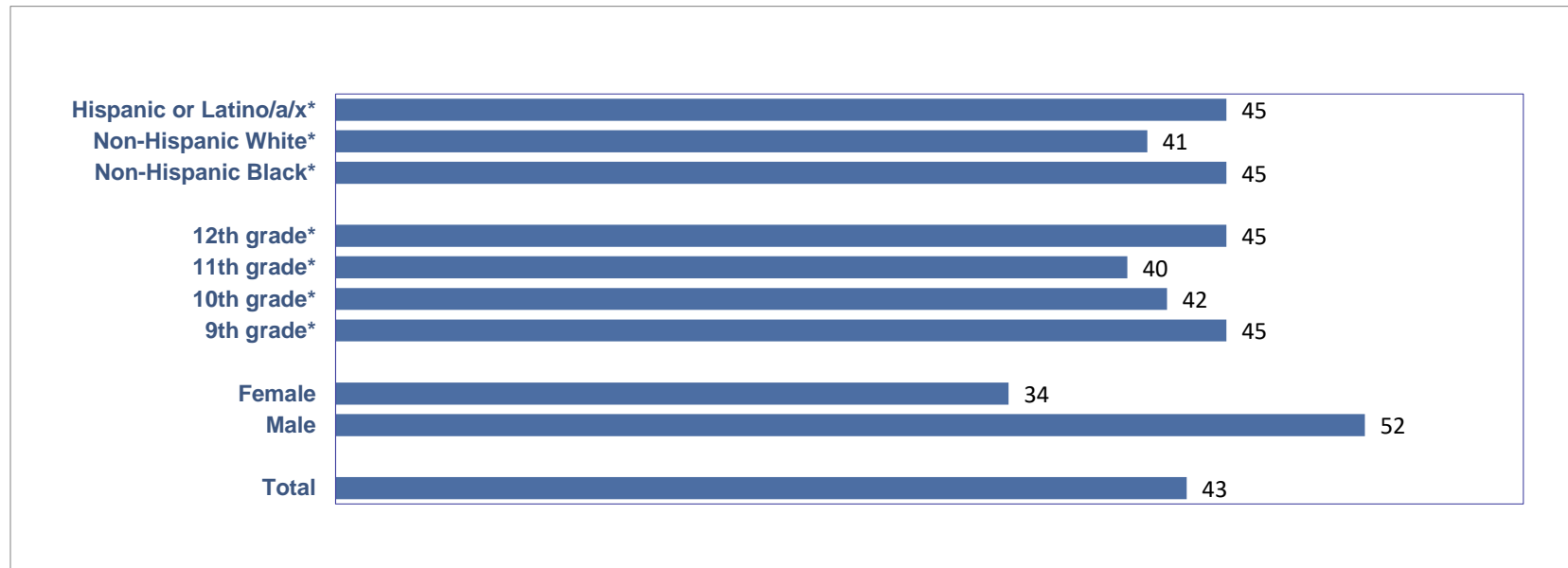


Figure 150: Past year gambling by sex, grade, and race/ethnicity, HS

Notes:

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

**Gambling refers to at least one of the following: played the lottery or scratch-off tickets; bet on fantasy sports; bet on individual sports teams; played Bingo for money; bet on dice games such as craps; bet money on a challenge (dare, fight, street race, etc); played online gambling games for money; bet on video games; bet on games of personal skill such as pool, darts, or basketball.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Gambling and Substance Use among High School Students (in percentages)

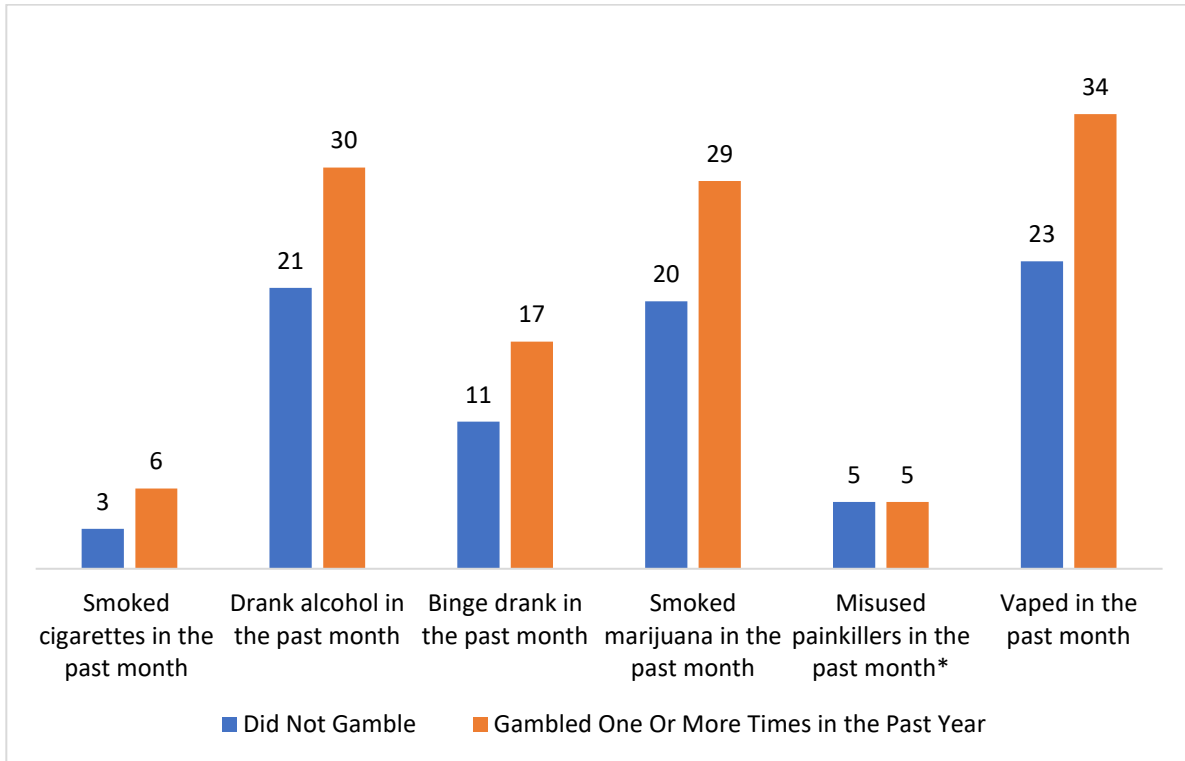


Figure 151: Past year gambling and substance use, HS

Notes:

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

**Gambling refers to at least one of the following: played the lottery or scratch-off tickets; bet on fantasy sports; bet on individual sports teams; played Bingo for money; bet on dice games such as craps; bet money on a challenge (dare, fight, street race, etc.); played online gambling games for money; bet on video games; bet on games of personal skill such as pool, darts, or basketball.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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9. Mental Health and Wellness

National Overview

Mental health includes our emotional, psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make choices. Mental health is important at every stage of life, from childhood to adolescence through adulthood. ([Centers for Disease Control and Prevention](#), n.d.)

According to the CDC, mental illnesses are among the most common health problems experienced throughout the country: more than half in the U.S. will be diagnosed with a mental illness or disorder during their lifetime; one in five Americans will experience a mental illness each year; one in five children will experience a “serious debilitating mental illness” at some point in their lifetime; and approximately 4% of adults live with a serious mental illness, such as schizophrenia or major depression (CDC, n.d.). Mental health problems may arise from multiple causes ranging from biological or genetic factors to life circumstances and stressors such as trauma, or they may result from a combination of these contributing dynamics. Though often challenging, mental illnesses are treatable, but recognition of the need for and access to treatment are variable.

Mental health is a major component of one’s overall health and well-being, and poor mental health is associated with higher risk for other medical conditions, such as cardiovascular disease, diabetes, and Alzheimer’s dementia (National Institute of Mental Health, n.d.). Mental health problems and substance use disorders often co-occur. Findings from a National Institute on Drug Abuse (NIDA, 2020) research report indicates approximately half of individuals who experience a mental disorder will also experience a substance use disorder at some point in their lifetime. Comorbidity may be due to common risk factors for both conditions, or one condition may lead to the other.

Just as a positive state of overall health is more than the absence of disease or illness, mental wellness is more than the absence of mental illness (World Health Organization, 2018). Chapter 13 of this report includes a discussion of protective factors that may contribute to mental wellness in addition to substance use prevention. An upcoming State Epidemiological Outcomes Work Group (SEOW) report will also highlight the role of positive childhood experiences (PCEs), protective factors, and resiliency. For a discussion of adverse childhood experiences (ACEs) which can lead to lifelong emotional and physical challenges, please see Chapter 11.

Delaware Overview

Findings from the 2017-2018 National Survey on Drug Use and Health (NSDUH) estimate that 42,000 (approximately 4.3%) adults aged 18 and over in Delaware experienced a serious mental illness and approximately 15% experienced any mental illness in the preceding year. The same

survey estimates that approximately 6.2% of Delaware adults experienced major depression in the previous year and 4% of adults had serious thoughts of suicide. NSDUH also estimates that nearly 15% of Delaware adults received mental health services in the preceding year. From 2014-2018, the suicide rate in Delaware was 12 deaths per 100,000 (Delaware Department of Health and Social Services, Division of Public Health, 2020). According to America's Health Rankings which draws upon multiple data sources to report on various aspect of community health, in 2019, 12.4% of all adults in Delaware experienced frequent mental distress, although older individuals report a lower rate of approximately 7% (United Health Foundation [UHF], n.d.).

Data from the 2019 High School Delaware Youth Risk Behavior Survey (YRBS) indicate that nearly one in three (approximately 31%) of Delaware 9th through 12th grade students report they had felt sad or hopeless almost every day for two weeks or more in a row in the past year. Seventeen percent report they had seriously considered attempting suicide during the past year, while 13% of students report that they had had a plan for suicide, and 8% report that they had actually attempted suicide in the past year. Additionally, nearly 16% of high school students report that they had purposely hurt or cut themselves during the past year. Results from the 2019 Middle School YRBS indicate that among middle school students, 19% had seriously considered suicide, 13% had made a plan, and 9% had attempted suicide at some point in their lifetime. While it is too early to know the impact of the COVID-19 pandemic and the subsequent stay-at home-order on the mental health of individuals and families in Delaware, it is logical to assume these conditions will create additional challenges for some.

These numbers illustrate that there is a profound need for mental health services for youth, as well as adults, in Delaware. In 2019, Delaware had 262.6 mental health providers per 100,000 people, a slight increase from previous years (UHF, n.d.). Since 2013, the Department of Services for Children, Youth and their Families has also deployed behavioral health consultants in most middle schools throughout the state to provide screening and other preventive services on-site. Nonetheless, the needs remain great, particularly for specialized services and for southern Delaware; according to the Health Resources and Services Administration (HRSA), Sussex County has a shortage of mental health facilities and received a Health Professional Shortage Area score of 18 or above, which qualifies as a high-priority area (Health Resources and Services Administration [HRSA], 2017).

On a positive note, in 2018, Delaware received several new federal grants to promote enhanced mental health among Delaware youth, including [Project DelAWARE](#) and the [Delaware Child Psychiatry Access Program](#). Other new resources have launched recently to provide support and enhance mental well-being in Delaware. [Mentalhealthde.com](#) provides information on mental wellness, suicide prevention, videos with practical tips for educators, parents and others, materials for downloading or electronic dissemination, and a special section dedicated to teens. The Delaware Hope Line is a 24/7 helpline designed to assist Delawareans cope with the stress and behavioral health needs that may have been exacerbated

by the COVID-19 pandemic, or who are experiencing challenges connecting to needed services. It provides a single point of contact for callers to connect with the full range of resources available through the Delaware Division of Substance Abuse and Mental Health (DSAMH). Callers can reach the Hope Line at: 1-833-9-HOPEDE (1-833-946-7333). Behavioral health tips and reminders are also available by texting DEHOPE to 55753. In addition, Delaware participates in the national Crisis Textline, a promising practice for youth mental well-being, which is highlighted at the end of the following series of graphs.

2019 Delaware Youth Risk Behavior Survey

High School Students Who Felt Sad or Hopeless Almost Every Day for Two Weeks or More in the Past Year

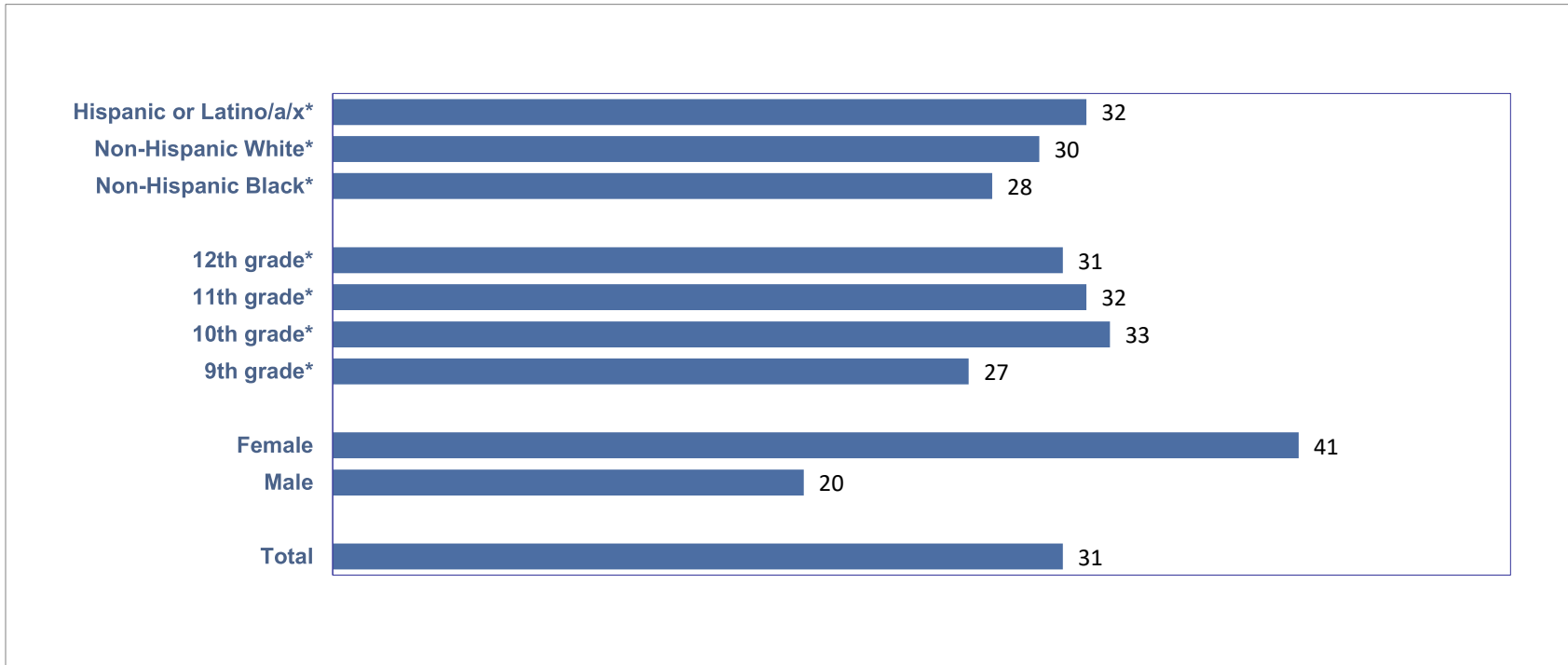


Figure 152: Feeling sad/hopeless almost every day for 2 weeks or more in a row, past year, HS

Note:

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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Delaware Youth Risk Behavior Survey, 1999-2019

Trends in Feelings of Sadness or Hopelessness among High School Students in Delaware (in percentages)

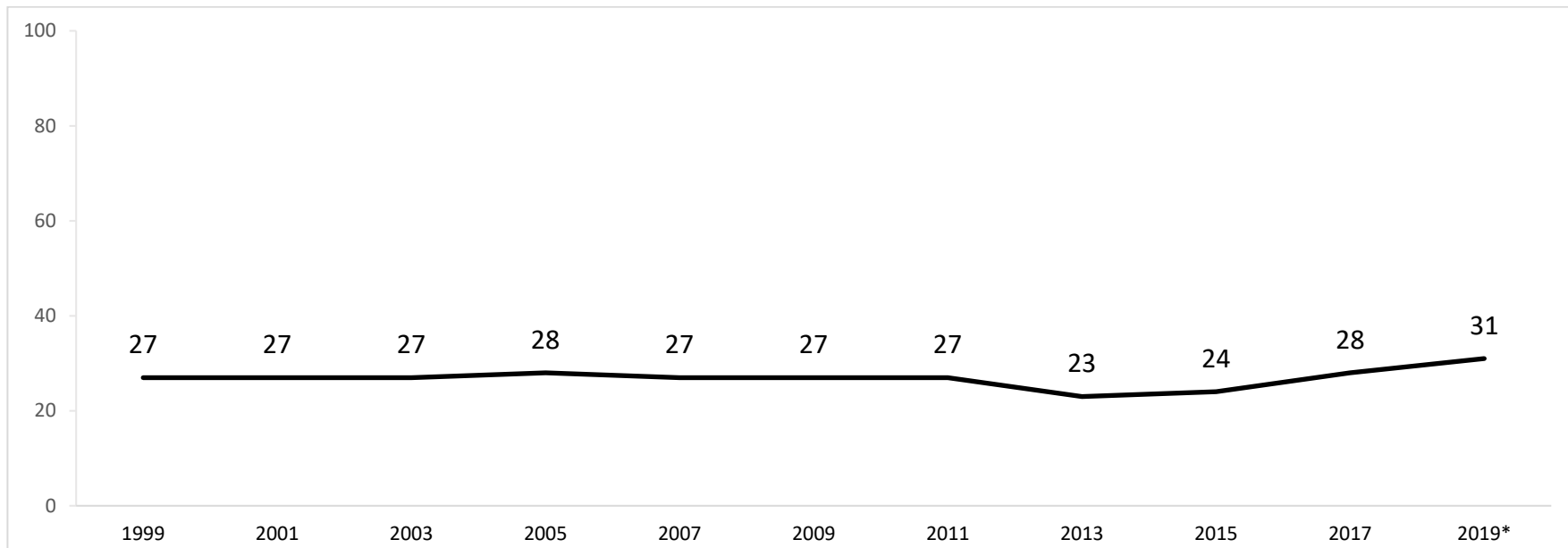


Figure 153: Trends in feeling sad/hopeless almost every day for 2 weeks or more in a row, HS

Note:

*In 2019, YRBS data was unweighted. Data from 2017 and earlier was weighted.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Self Harm in the Past Year among Middle School Students (in percentages)

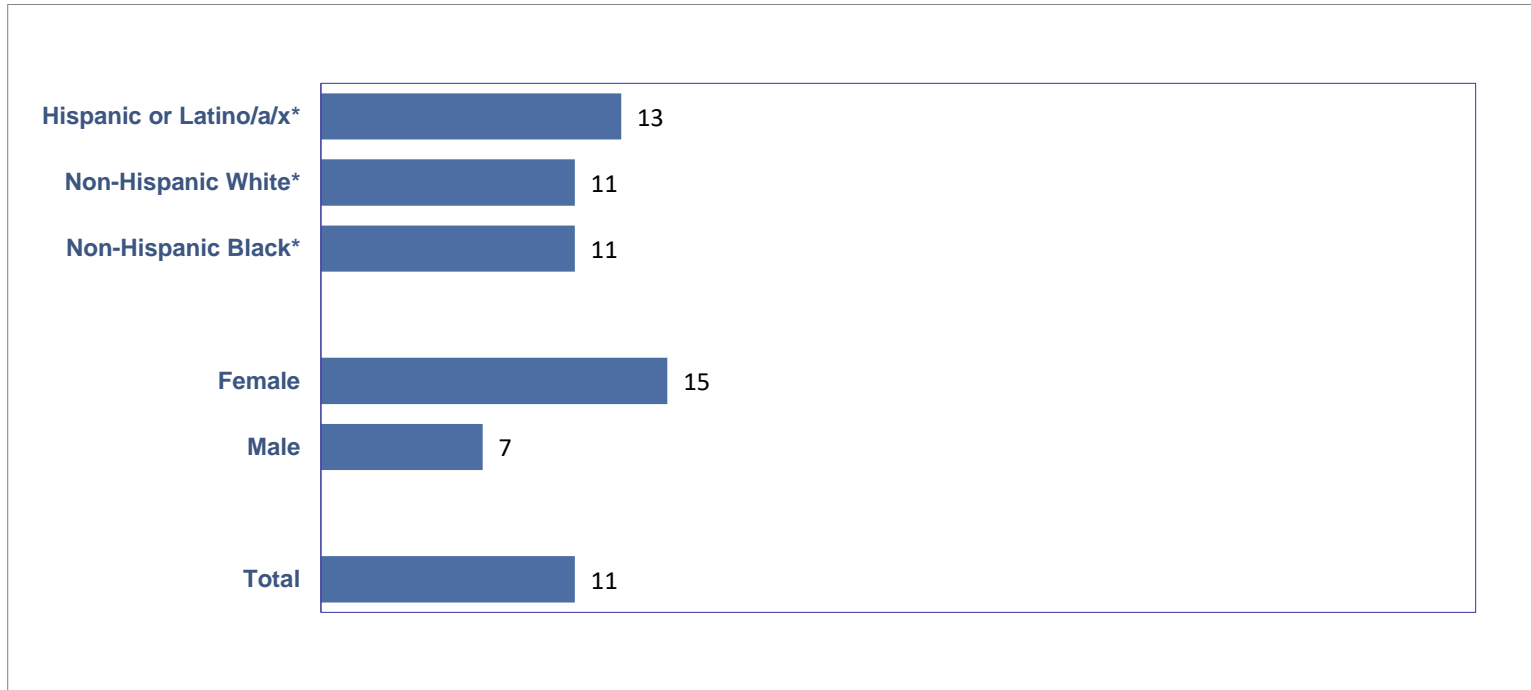


Figure 154: Self harm^a in the past year by sex, race/ethnicity, MS

Note:

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

^aSelf harm refers to non-suicidal self-injury, such as cutting or burning oneself on purpose without wanting to die.

Differences in self harm by individual grade level were too small ($n < 30$) to report.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Self Harm in the Past Year among High School Students (in percentages)

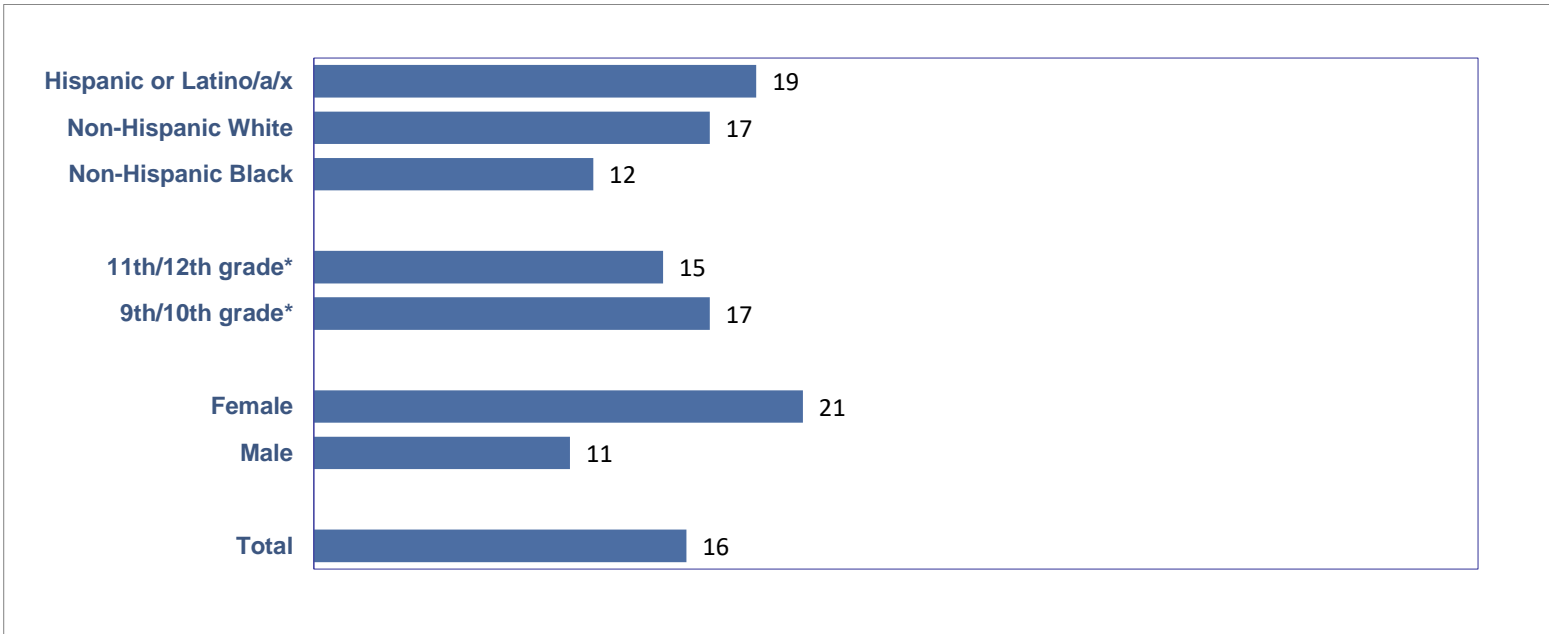


Figure 155: Self harm^a in the past year, by sex, grade, and race/ethnicity, HS

Note:

Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

^aSelf harm refers to non-suicidal self-injury, such as cutting or burning oneself on purpose without wanting to die.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Middle School Students Who Ever Seriously Considered Suicide (in percentages)

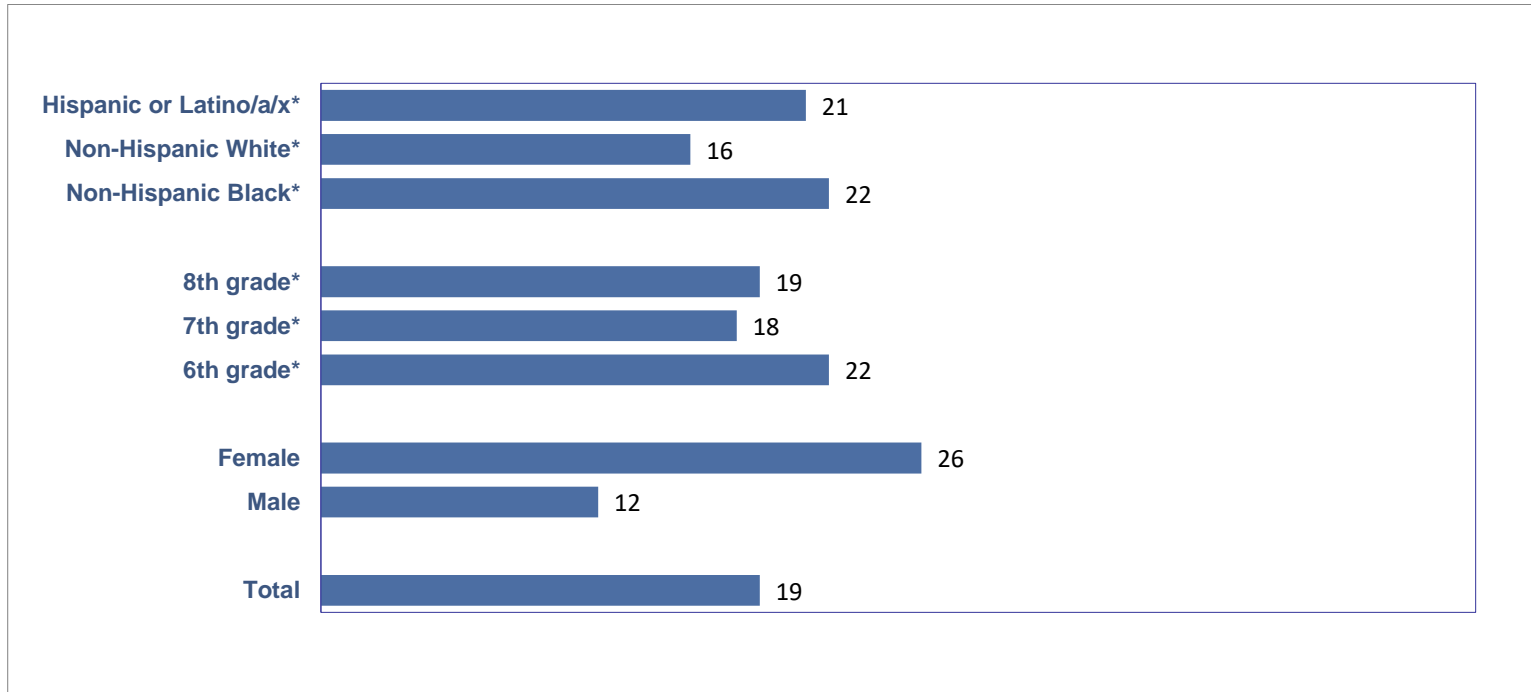


Figure 156: Ever seriously considered suicide, MS

Note:

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey

High School Students Who Seriously Considered Suicide in the Past Year (in percentages)

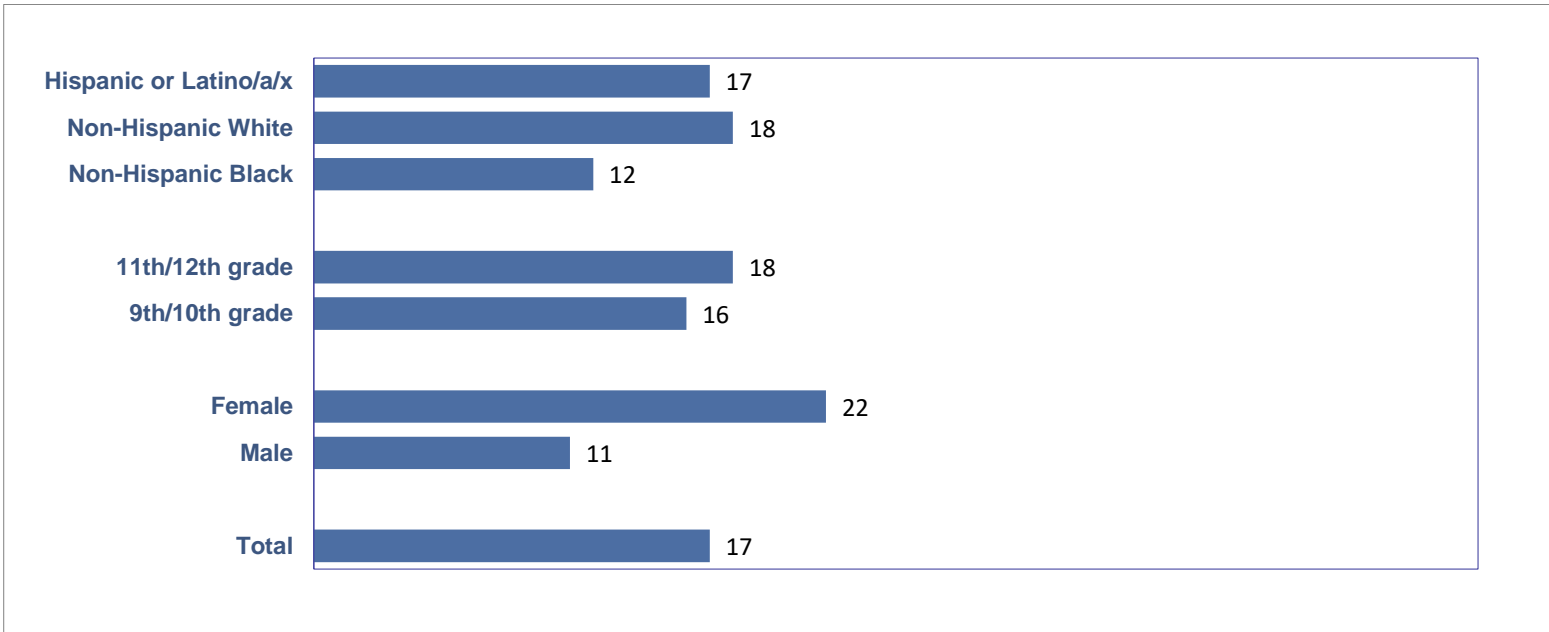


Figure 157: Seriously considered attempting suicide, past year, HS

Note:

Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Middle School Students Who Ever Made a Plan for Suicide (in percentages)

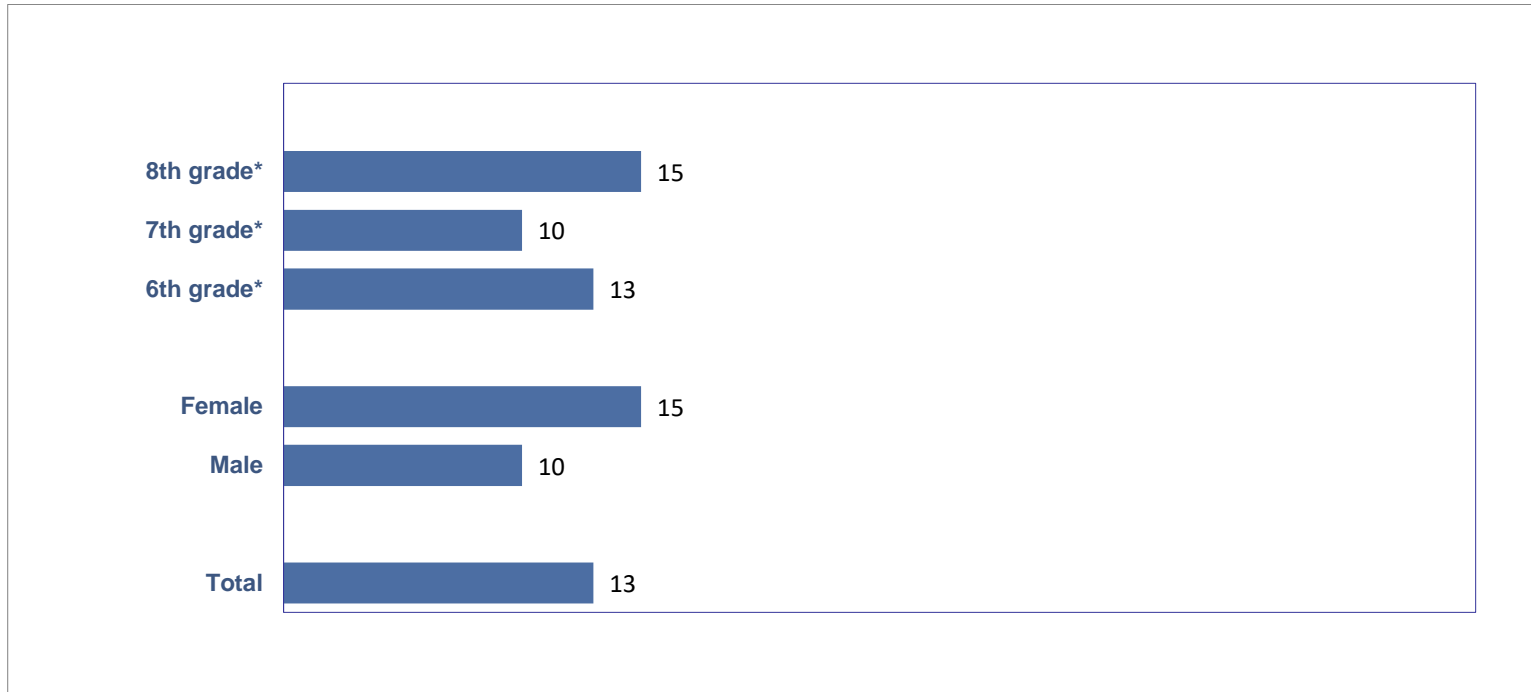


Figure 158: Ever made plan for suicide, MS

Note:

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

Differences by race/ethnicity were too small ($n < 30$) to report.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey High School Students Who Made a Plan to Attempt Suicide in the Past Year (in percentages)

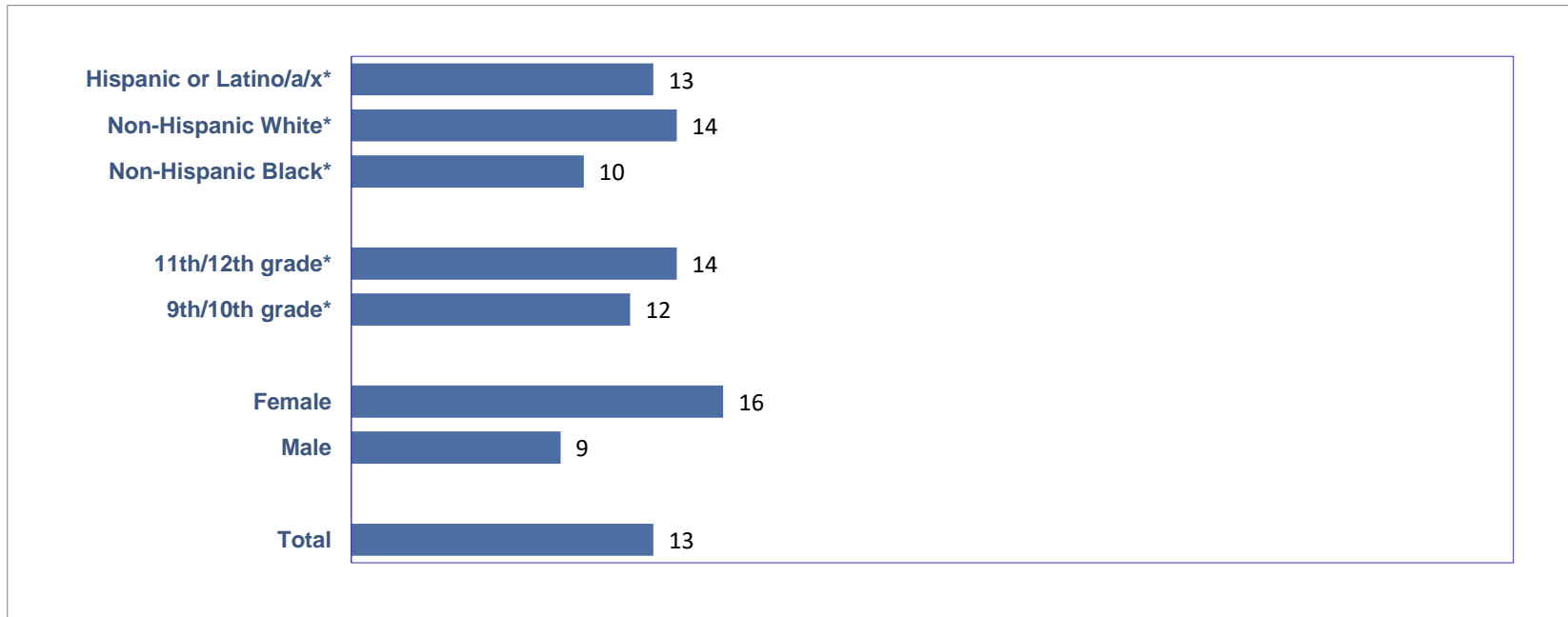


Figure 159: Made plan to attempt suicide, past year, HS

Note:

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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Delaware Youth Risk Behavior Survey, 1999-2019

Trends in High School Students Who Made a Plan to Attempt Suicide in the Past Year (in percentages)

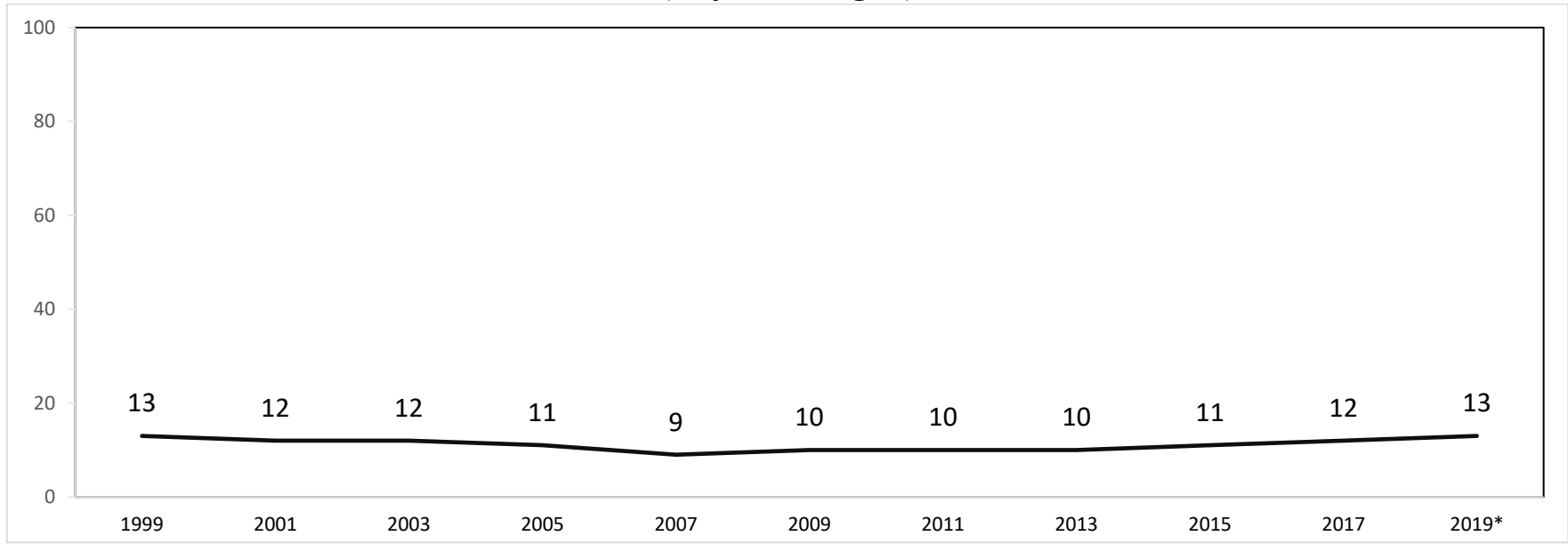


Figure 160: Trends in having made plan to attempt suicide in past year, HS

Note:

*In 2019, YRBS data was unweighted. Data from 2017 and earlier was weighted.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey
Middle School Students Who Report Attempting Suicide in their Lifetime
(in percentages)

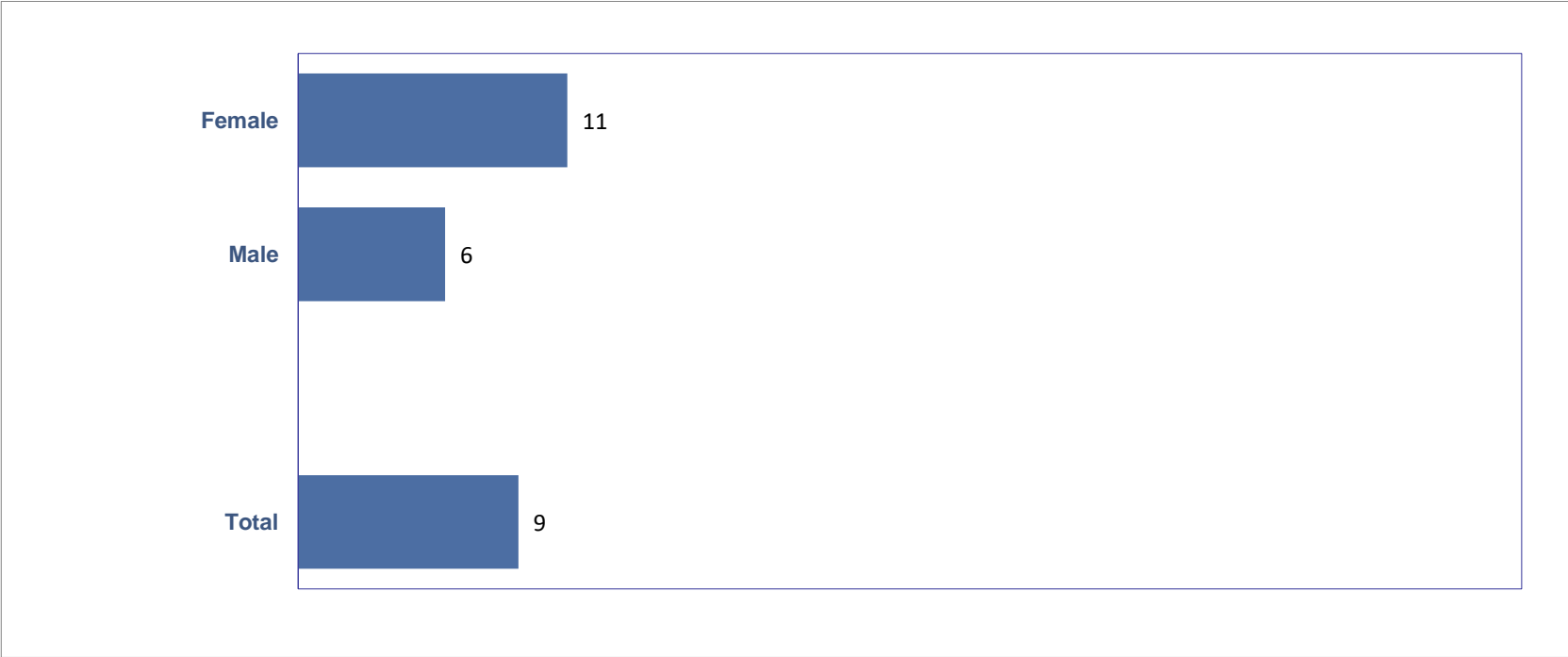


Figure 161: Attempted suicide in lifetime, MS

Note:
Unless otherwise noted, all estimates were statistically significant at the $p < .05$ level.
Individual estimates of attempted suicide by grade level and race/ethnicity were too small ($n < 30$) to report.
Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey High School Students Who Report Attempting Suicide in the Past Year (in percentages)

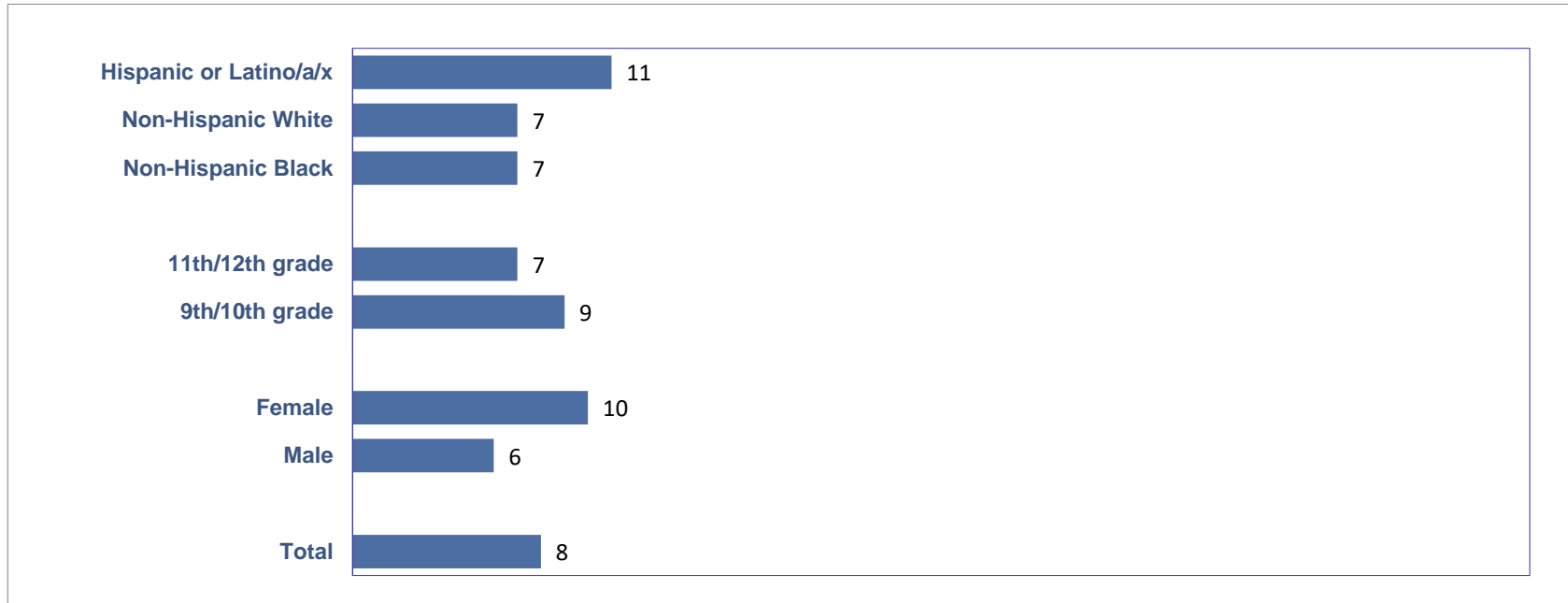


Figure 162: Attempted suicide in past year, HS

Note:

Unless otherwise noted, all estimates are significant at the $p < .05$ level.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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Delaware Youth Risk Behavior Survey, 1999-2019

Trends in High School Students Who Report Attempting Suicide in the Past Year (in percentages)

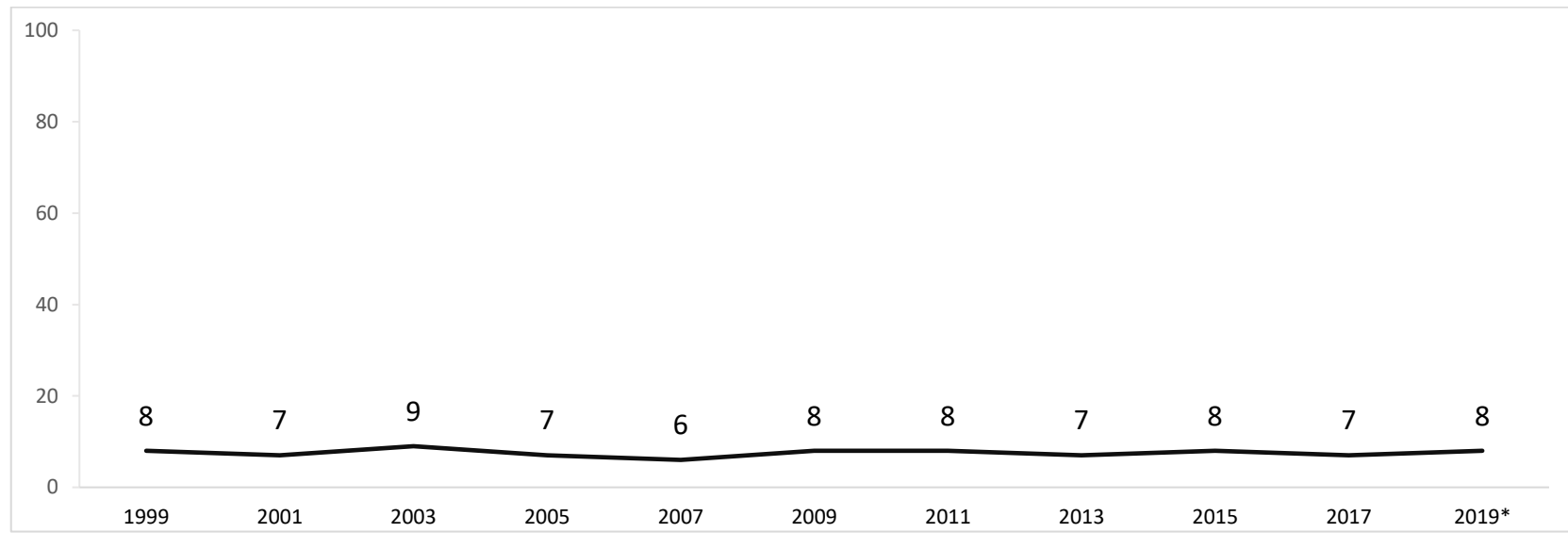


Figure 163: Trends in attempted suicide in past year, HS

Note:

*In 2019, YRBS data was unweighted. Data from 2017 and earlier was weighted.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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Promising Practices: The Crisis Text Line

Crisis texting services are considered promising practices in suicide prevention. The U.S. Substance Abuse and Mental Health Services Administration (SAMHSA) sponsors the Garrett Lee Smith Suicide Prevention initiative, which funded the Department of Services for Children, Youth and their Families (DSCYF) to conduct *Project SAFETY* in Delaware through June 2020. The agency partnered with Crisis Text Line (CTL), a nonprofit organization that provides crisis texting services staffed by trained volunteers who respond to the texters, providing support and information, and, whenever necessary, triggering an active rescue. Staffers code the conversations according to keywords. When a texter uses a specific designation, data is collected to highlight aggregate characteristics of those conversations.

The first chart below provides the frequency of CTL conversations that have been attributed to Delaware's *Project SAFETY* designation (text DE to 741741). As of June 2020, CTL had 1,744 registered conversations under this classification and there had been nine active rescues. The second chart illustrates the topics of conversations by those using CTL as coded by the trained volunteers. Relationships, anxiety and stress, and depression and sadness are the top-three topics coded, followed by suicide, which was identified in 19% of conversations.

Monthly Frequency of Crisis Text Line Conversations

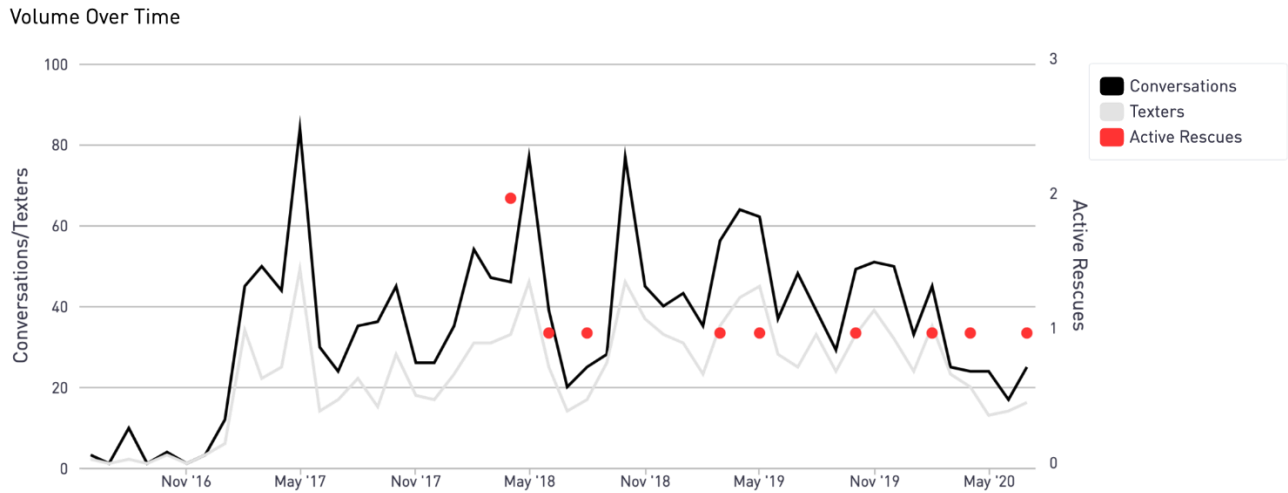


Figure 164: Frequency of conversations, texters, and active rescues, 2016-20

Topics of Crisis Text Line Conversations (in percentages)

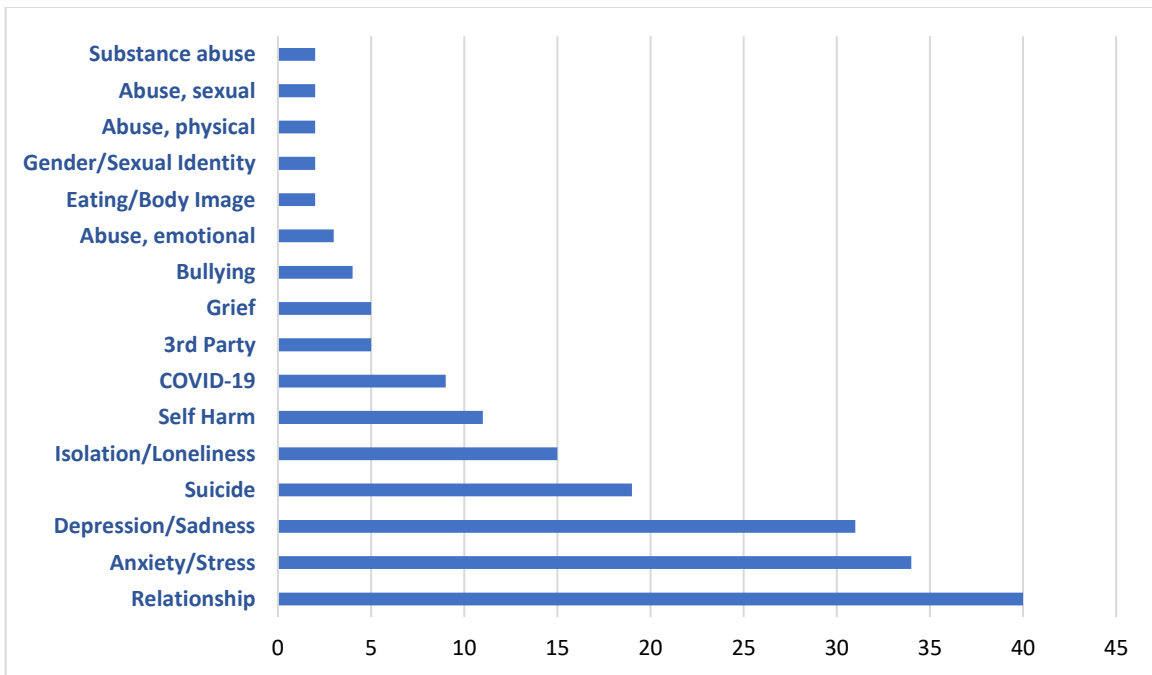


Figure 165: Crisis text line conversation topics

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10. Persons with Disabilities

National Overview

People with disabilities make up a substantial portion of the general population. Due to variations in defining disability and in measuring prevalence, epidemiological studies of behavioral health outcomes are limited and lead to differences in population estimates. There are three standard approaches to measuring disability: a medical approach that measures prevalence by diagnostic codes; a functional approach that measures disability by difficulties in tasks of daily living; and sociological approaches, which consider the accommodations needed for inclusion, accessibility, and daily functioning (McDermott and Turk, 2011). The U.S. Department of Health and Human Services established [data collection standards](#) for the identification of disability status, which includes the use of a series of six questions on population-based surveys relevant to categories of functional challenges. These six categories include hearing, visual, cognitive, ambulatory, self-care, and independent living disabilities.

An analysis of data from the Behavioral Risk Factor Surveillance System (BRFSS) by researchers from the Centers for Disease Control and Prevention (CDC) found that in 2016, approximately one in four noninstitutionalized adults in the U.S. reported that they have a disability. This study found that people with disabilities often face significant health disparities in comparison to the general population, including disparate health outcomes and reduced healthcare access (Okoro, Hollis, Cyrus, & Griffin-Blake, 2018). Researchers have also found disparate health outcomes for people with disabilities related to substance use, particularly increased use of tobacco and opioids. An analysis of data from the National Survey on Drug Use and Health (NSDUH) found that people who report having a work-related disability or receiving Medicare under the age of 65 (which, in most cases, indicates that the person has a disability) report higher rates of substance use, particularly heroin or oxycodone, than other populations (Glazier & Kling, 2013). Additional studies have also found higher rates of opioid prescribing for people with disabilities (Hong, Geraci, Turk, Love, McDermott, 2019), as well as adverse outcomes from use, such as opioid and other prescription drug misuse (Ford, Hinojosa, Nicholson, 2018), opioid use disorders (Lauer, Henly, & Brucker, 2019), and fatal overdoses (Song, 2017).

In addition to the six types of disability captured by national surveys (functional difficulties related to vision, hearing, cognition, mobility, self-care, and independent living), people with behavioral health challenges such as attention deficit/hyperactivity disorder (ADHD), anxiety, depression, or other mental health disorder may experience similar difficulty in daily functioning and adverse health outcomes.

Delaware Overview

Prevalence estimates suggest a that between 12% (American Community Survey, 2014-2018) and 27% (Behavioral Risk Factor Surveillance System [BRFSS], 2018) of Delaware residents have a disability. This wide variance in estimates is likely due to different surveying methods, survey

instruments, and the ages of those surveyed. Disability prevalence increases as people age; according to the BRFSS, more than two out of five Delaware residents aged 65 and over report having a disability, twice the rate of adults aged 18-44 (CDC, [Disability and Health Data System](#), n.d.).

The [National Survey of Children's Health](#) provides additional context for children in Delaware. Most recent data (2017-2018) indicates that 29% of children in Delaware have one or more functional difficulty⁹ and 14% have two or more. According to parent respondents, 10% of children currently experience ADHD and an additional one percent have been diagnosed with the condition in the past. Nearly one in ten children (ages 3-17) received mental health treatment in the past year, with an additional two percent of children identified by their parents as needing to but did not see a mental health professional within the past year. Respondents also report that 22% of youth have a mental, emotional, behavioral, or developmental problem. Approximately 4% are identified as having autism spectrum disorder.

The Delaware Department of Education (DOE) reports that 16.7% of students currently enrolled in public schools have a disability. As required by the Individuals with Disabilities Education Act (IDEA), the DOE provides additional data related to this population. During the 2017-2018 school year, 20,580 children and youth with disabilities ages 6-21 were enrolled in Delaware schools; nearly 66% of these students spent 80% or more of their school day in a regular classroom setting. Nearly half of the students ages 6-21 enrolled with a disability have a specific learning disability that entails having difficulties with listening, speaking, reading, writing, and understanding math (*e.g.*, dyslexia, dysgraphia) that are not a result of some other disability. An additional 2,616 students with disabilities, ages 3-5, were enrolled in public schools during this time period (Delaware Department of Education, IDEA Child Count and Educational Environment, Ages [6-21](#) and [3-5](#)).

In line with national research, one public health assessment of the Delaware population with disabilities found that people with disabilities face significant health disparities in comparison to the general population, including increased incidence of some cancers, heart disease, dental problems, diabetes, current smoking, and depression. People with disabilities also report reduced healthcare access and decreased preventive cancer screening (Sparling et al., 2015). Data from the 2017 and 2018 BRFSS indicates considerably higher prevalence for smoking status, e-cigarette use, and depression for Delaware adults with disabilities (CDC, [Disability and Health Data System](#), n.d.).

⁹ Functional difficulty, as defined by the National Survey of Children's Health, requires one of 12 of the following conditions: frequent or chronic respiratory problems (past year); difficulty eating or swallowing (past year); stomach/intestinal problems (past year); repeated or chronic pain, including headaches (past year); difficulty using hands (0-5 years); difficulty with coordination and movement (0-5 years); serious difficulty concentrating, remembering, or making decisions (6-17 years); serious difficulty walking or climbing stairs (6-17 years); difficulty dressing or bathing (6-17 years); difficulty doing errands alone (12-17 years); deafness/hearing problems; and blindness or vision difficulties even when wearing glasses.

Youth survey data also indicate elevated risk for students who have a disability compared to students who do not. One in three middle school and nearly four in ten high school students report having a disability (Youth Risk Behavior Survey [YRBS], 2019). YRBS indicators include difficulty seeing, hearing, walking, or climbing stairs, or having serious difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional disability. The analysis highlighted in this report incorporates responses from students who self-identify as having a disability as well as those who report that they have been diagnosed with a physical, mental, or emotional disability by a medical professional. By middle school, students responding to the YRBS who report having a disability also report higher rates of substance use and poorer mental health outcomes than their peers. The association between disability status and risk behaviors is also documented among high school students. Those who report having a disability also report higher rates of substance use, sexual activity, and poorer mental health outcomes. Among both age groups, students with disabilities were also less likely to report that their parents show they are proud of them, that their parents take an interest in them, or that their parents listen when they talk. This is concerning given that family connectedness is deemed a protective factor against negative health outcomes for youth (Steiner, Sheremenko, Lessesne, Dittus, Sieving, and Ethier, 2019; CDC, Division of Adolescent and School Health, n.d.). For a more detailed discussion of protective factors, please see Chapter 13 of this report.

American Community Survey^a 5-Year Estimates, 2014-2018

Disability Prevalence in Delaware, by Age (in percentages)

Disability by Age	%
Under 5 years	0.9
5 to 17 years	5.5
18 to 34 years	6.6
35 to 64 years	11.9
65 to 74 years	22.3
75 years and over	43.2

Figure 166: Disability prevalence by age group

Source: [U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.](#)

Disability Prevalence in Delaware, by Type (in percentages)

Disability by Type	%
Total Disabilities^b	12.3
Hearing Difficulty	3.0
Vision Difficulty	2.0
Cognitive Difficulty	5.1
Ambulatory Difficulty	6.9
Self-Care Difficulty	2.6
Independent Living	5.5

Figure 167: Disability prevalence by type

Note:

^aAmerican Community Survey estimates include both adult and children populations.

^bSome individuals may report multiple types of disabilities, so the total disability prevalence will not equal the sum of the prevalence of individual disability types.

Source: [U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.](#)

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American Community Survey^a 5-Year Estimates, 2014-2018

Disability Prevalence in Delaware

Disability by Race and Hispanic or Latino Origin	%
White	13.0
Black or African American	11.6
American Indian and Alaskan Native	30.9
Asian	5.1
Native Hawaiian or Other Pacific Islander	8.0
Other Race	9.4
Two or More Races	10.8
Hispanic or Latino (of any race)	8.2

Figure 168: Disability prevalence by race and Hispanic or Latino origin

Note:

^aAmerican Community Survey estimates include both adult and children populations.

Source: [U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.](https://www.census.gov/data/tables/2014/acs/5-year/tables.html)

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2018 Behavioral Risk Factor Surveillance System^a
Disability^b Prevalence by Type,
Delaware and National Estimates
(in percentages)

	Delaware	USA
Any disability^c	26.8	26
Cognitive disability	12.1	11.5
Hearing disability	6.3	5.9
Mobility disability	11.7	12.4
Vision disability	5.2	5.0
Self-care disability	3.4	3.5
Independent living disability	6.7	6.8

Figure 169: Disability status by type, Delaware and national estimates, adults 18+

Note:

^aThe Behavioral Risk Factor Surveillance System (BRFSS) surveys only the adult population.

^bDisability is defined in the BRFSS as at least one of the following: serious difficulty hearing; serious difficulty seeing; serious difficulty concentrating, remembering or making decisions due to a physical, mental or emotional condition; serious difficulty walking or climbing stairs; difficulty dressing or bathing; or having difficulty doing errands alone because of a physical, mental, or emotional condition.

^cSome individuals may report multiple types of disabilities, so the total disability prevalence will not equal the sum of the prevalence of individual disability types.

Source: [2018 Delaware Behavior Risk Factor Surveillance System. Disability and Health Data System \(DHDS\), Centers for Disease Control and Prevention.](#)

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2019 Delaware Youth Risk Behavior Survey Disability^a among Middle School Students

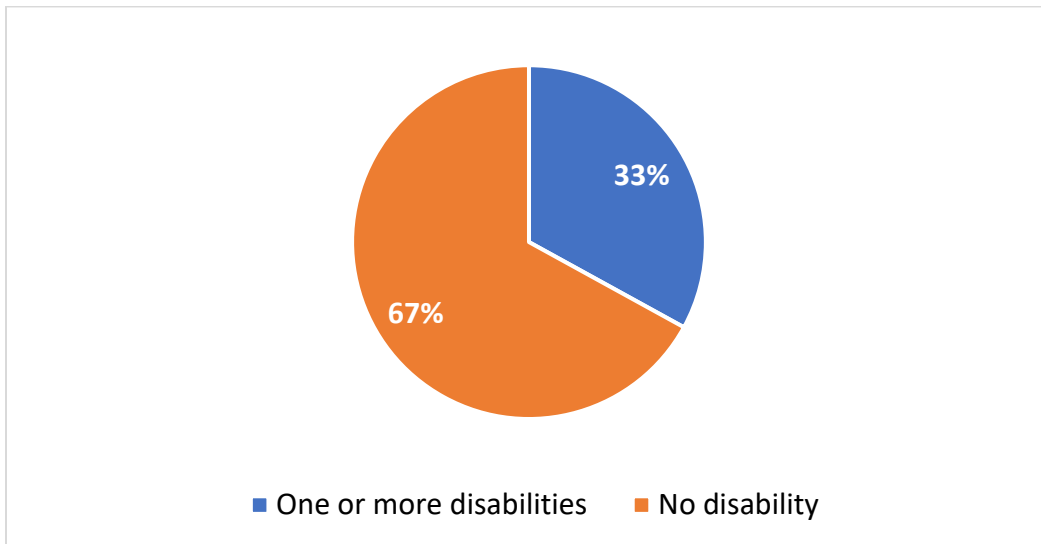


Figure 170: Disability prevalence among MS students

Disability^a among High School Students

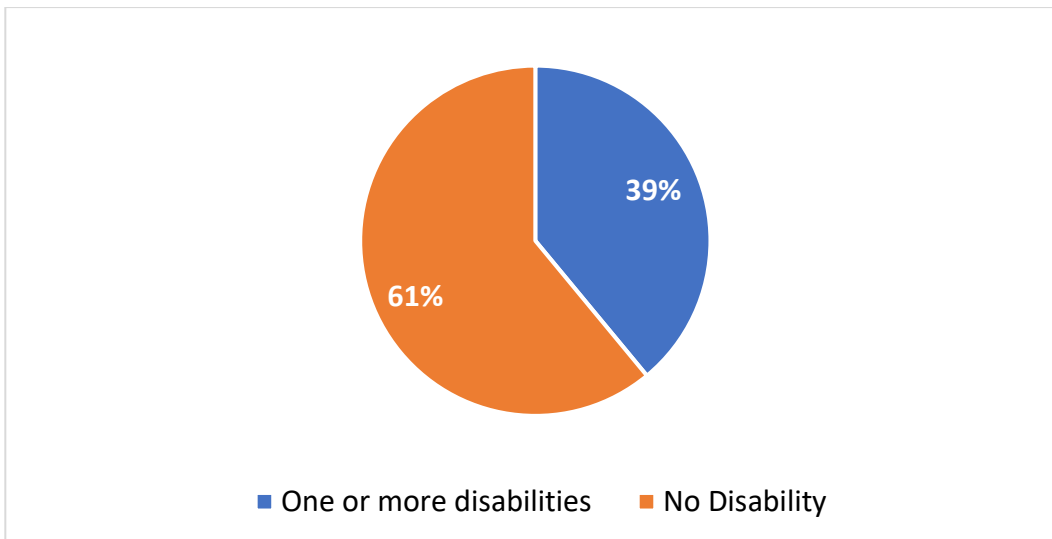


Figure 171: Disability prevalence among HS students

Note: ^aDisability is defined in the YRBS as serious difficulty hearing or seeing, difficulty walking or climbing stairs, or difficulty concentrating, remembering, making decisions, or doing things due to a physical, emotional, or learning disability identified by the student or a doctor/healthcare professional.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

[Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Disability^a Prevalence by Sex, Grade, and Race/Ethnicity Among Middle School Students (in percentages)

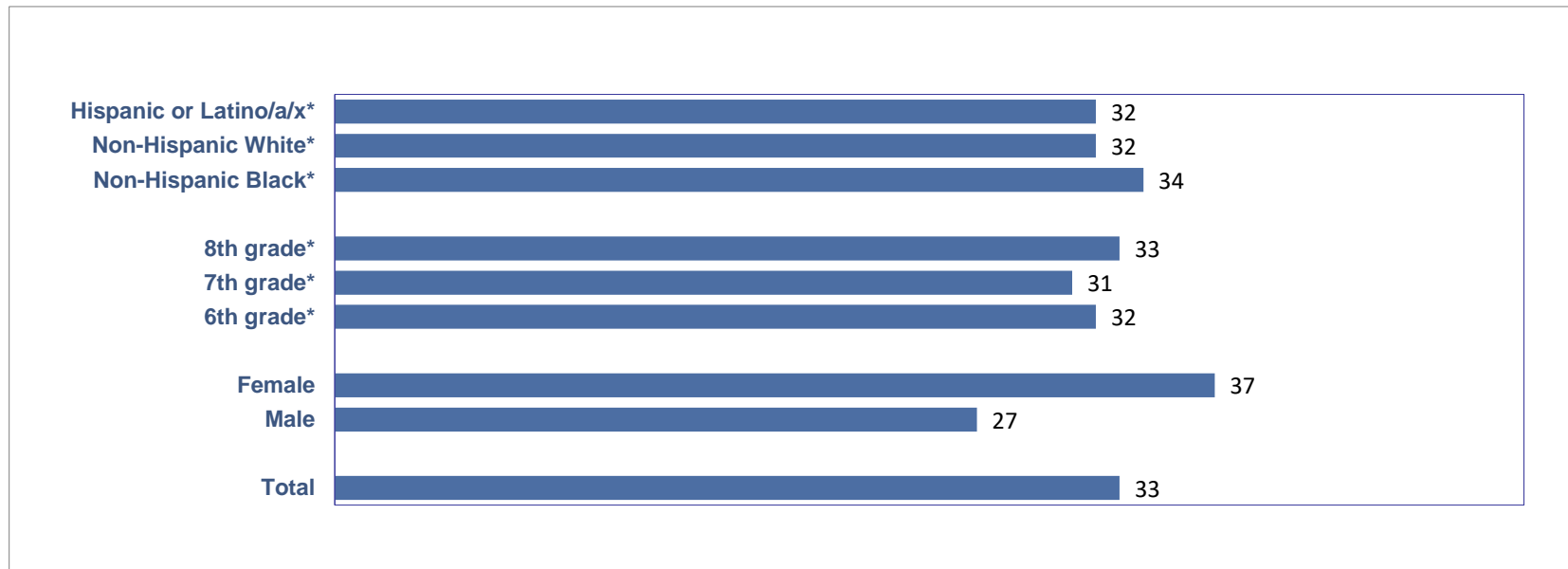


Figure 172: Disability prevalence by sex, grade, and race/ethnicity, MS

Note:

^aDisability is defined in the YRBS as serious difficulty hearing or seeing, difficulty walking or climbing stairs, or difficulty concentrating, remembering, making decisions, or doing things due to a physical, emotional, or learning disability identified by the student or a doctor/healthcare professional.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Disability^a Prevalence by Sex, Grade, and Race/Ethnicity Among High School Students (in percentages)

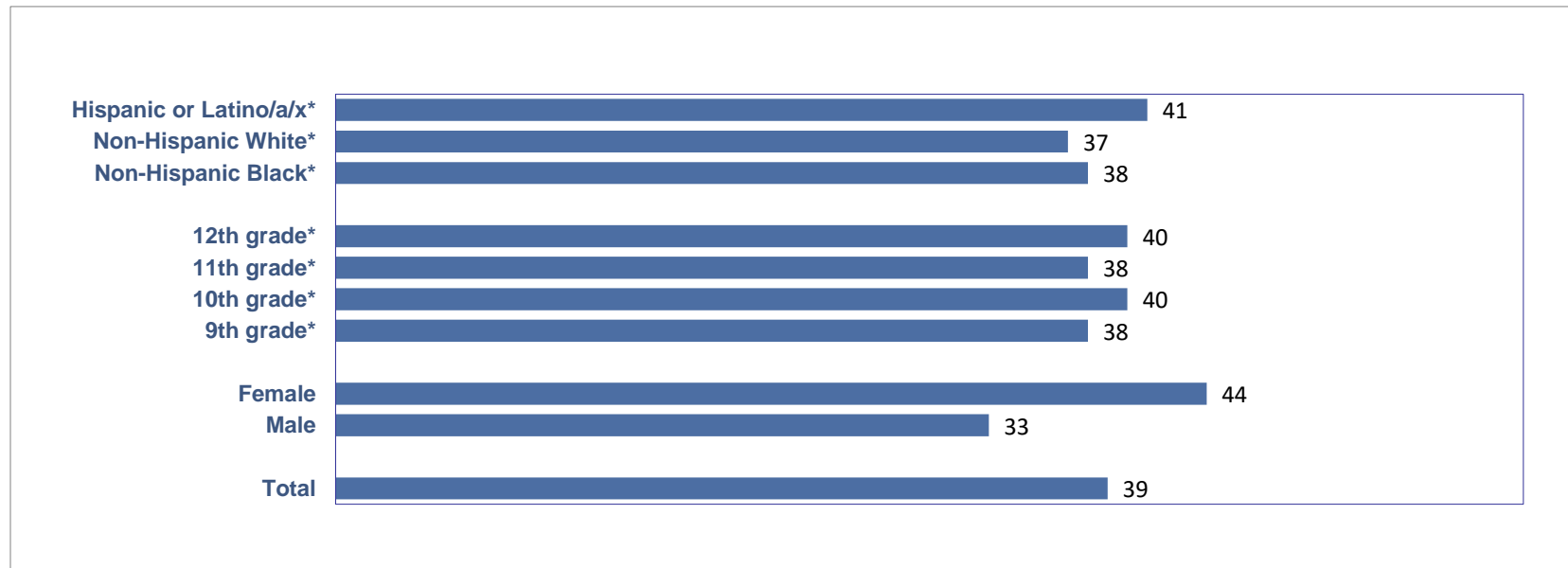


Figure 173: Disability prevalence by sex, grade, and race/ethnicity, HS

Note:

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

^aDisability is defined in the YRBS as serious difficulty hearing or seeing, difficulty walking or climbing stairs, or difficulty concentrating, remembering, making decisions, or doing things due to a physical, emotional, or learning disability identified by the student or a doctor/healthcare professional.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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**2018 Delaware Behavioral Risk Factor Surveillance System
Smoking, Alcohol Use, and Mental Health
by Disability^a Status among Delaware Adults
(in percentages)**

	Adults with Disability	Adults without Disability
Current Smoker	28.1	13.7
Former Smoker	26.6	22.2
Never Smoker	45.2	64.1
Binge drinking in past 30 days	18.5	18.2
Mentally Unhealthy for 14+ days in the past 30	34.9	6.6
Ever had depression	19.3	8.8

Figure 174: Disability, smoking status, E-cigarette use, and depression, adults

Note:

^aDisability is defined in the BRFSS as at least one of the following: serious difficulty hearing; serious difficulty seeing; serious difficulty concentrating, remembering or making decisions due to a physical, mental or emotional condition; serious difficulty walking or climbing stairs; difficulty dressing or bathing; or having difficulty doing errands alone because of a physical, mental, or emotional condition.

Source: [2018 Delaware Behavior Risk Factor Surveillance System. Disability and Health Data System \(DHDS\). Centers for Disease Control and Prevention.](#)

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2019 Delaware Youth Risk Behavior Survey Lifetime Substance Use among Middle School Students with Disabilities^a (in percentages)

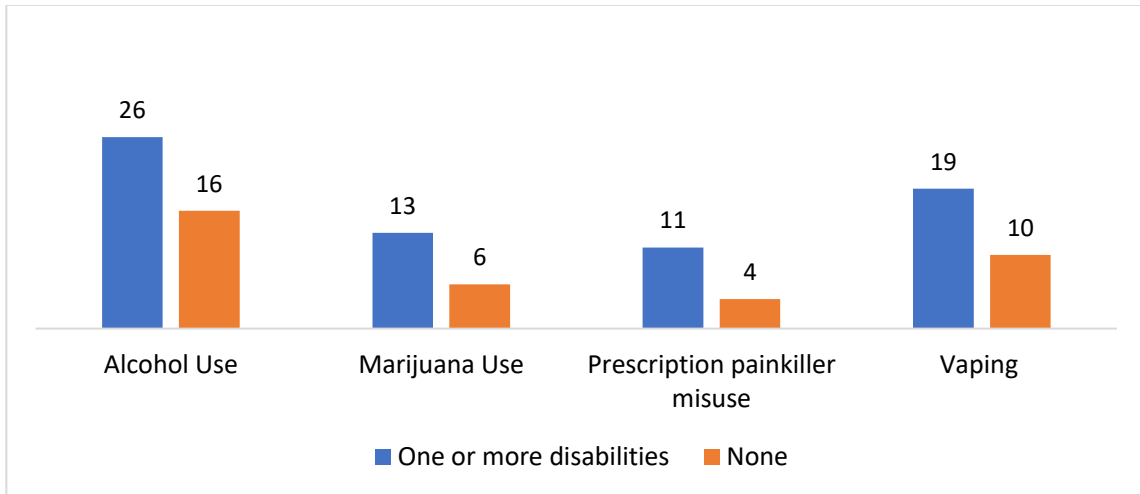


Figure 175: Disability, lifetime substance use, MS

Mental Health among Middle School Students with Disabilities^a (in percentages)

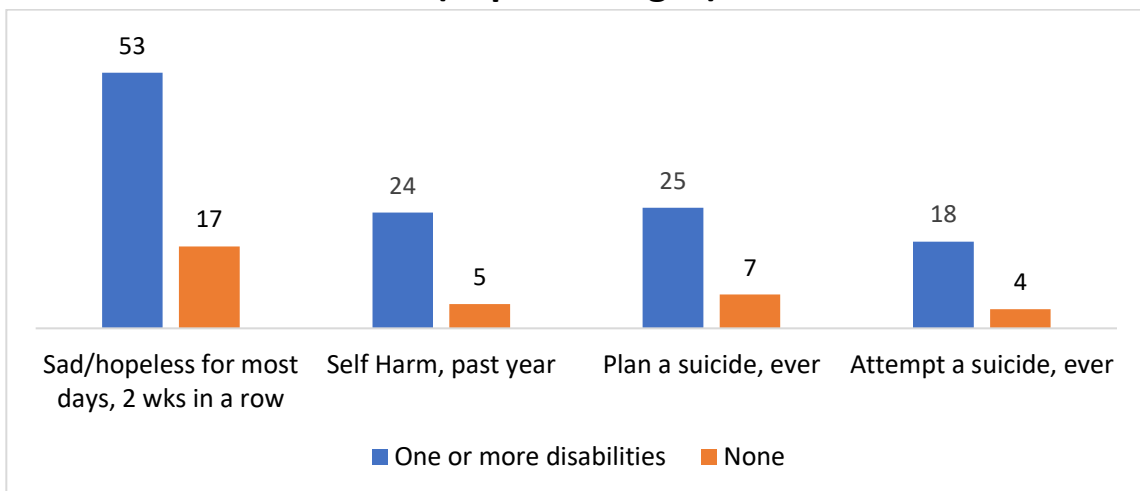


Figure 176: Disability, past year mental health, MS

Notes: Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

^a Disabilities are defined in the YRBS as serious difficulty hearing or seeing, difficulty walking or climbing stairs, or difficulty concentrating, remembering, making decisions, or doing things due to a physical, emotional, or learning disability identified by the student or a doctor/healthcare professional.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Disabilities^a and Protective Factors^b Among Middle School Students (in percentages)

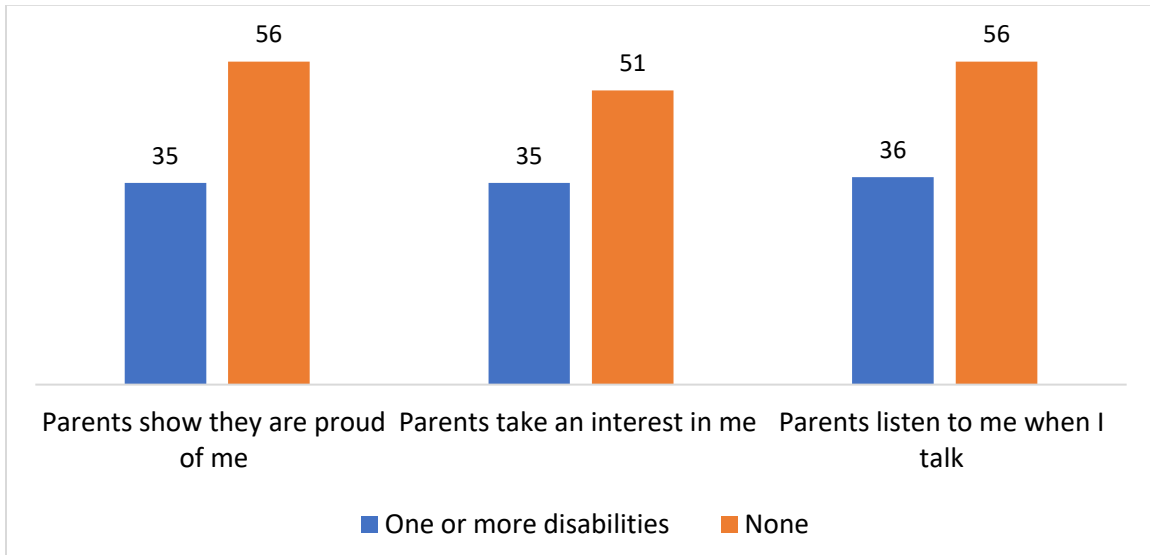


Figure 177: Disability, protective factors, HS

Notes:

Unless otherwise noted, all estimates are statistically significant at the p<.05 level.

^a Disabilities are defined in the YRBS as serious difficulty hearing or seeing, difficulty walking or climbing stairs, or difficulty concentrating, remembering, making decisions, or doing things due to a physical, emotional, or learning disability identified by the student or a doctor/healthcare professional.

^b Students who responded “always” when asked how often their parents show they are proud, take an interest, or listen when they talk.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: Middle School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Substance Use among High School Students with Disabilities^a (in percentages)

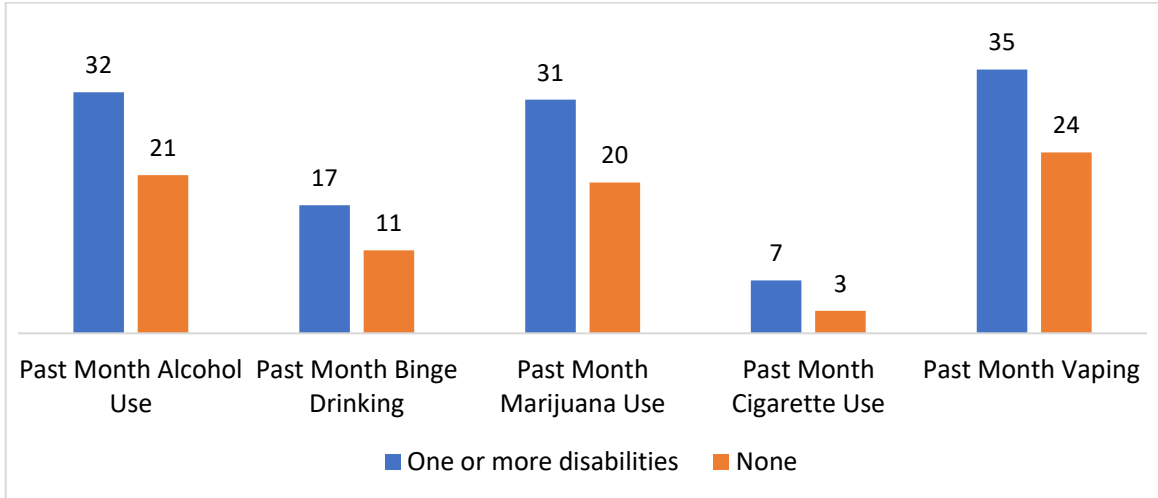


Figure 178: Disability, past month substance use, HS

Mental Health among High School Students with Disabilities^a (in percentages)

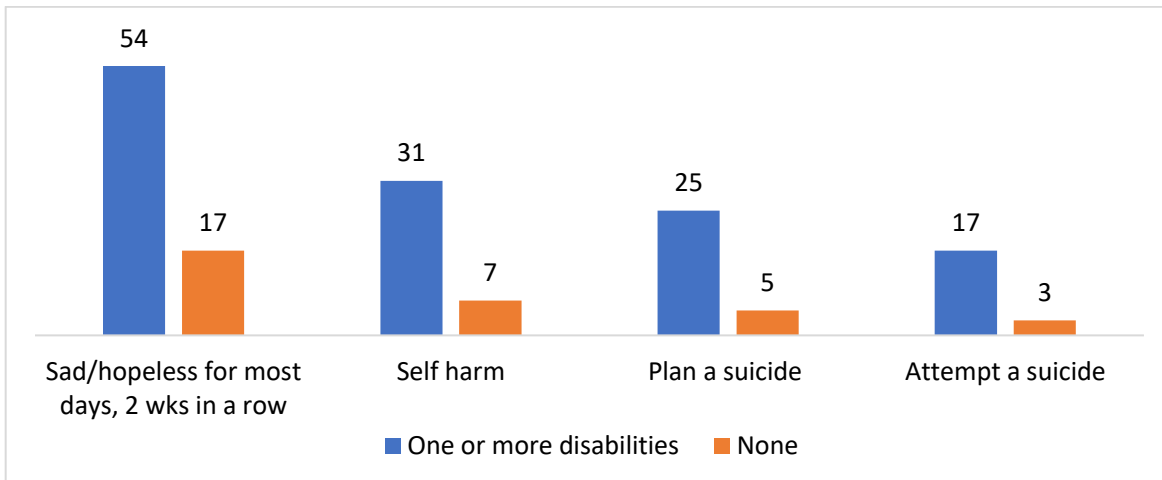


Figure 179: Disability, past year mental health, HS

Notes:

Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

^aDisabilities are defined in the YRBS as serious difficulty hearing or seeing, difficulty walking or climbing stairs, or difficulty concentrating, remembering, making decisions, or doing things due to a physical, emotional, or learning disability identified by the student or a doctor/healthcare professional.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Sexual Activity among High School Students with Disabilities^a (in percentages)

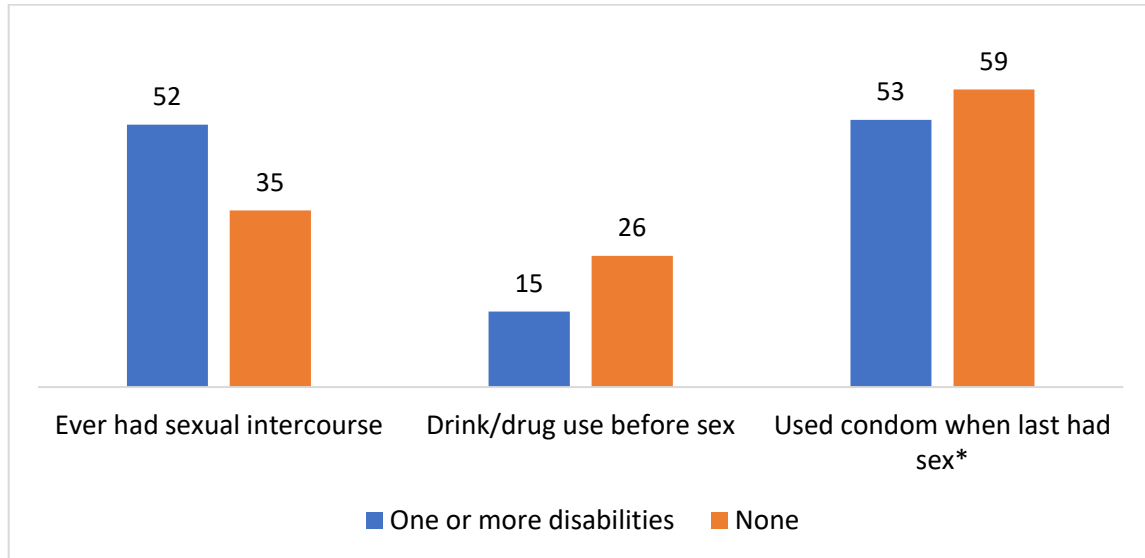


Figure 180: Disability, sexual activity, substance use, condom use^b, HS

Notes:

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

^a Disabilities are defined in the YRBS as serious difficulty hearing or seeing, difficulty walking or climbing stairs, or difficulty concentrating, remembering, making decisions, or doing things due to a physical, emotional, or learning disability identified by the student or a doctor/healthcare professional.

^b Drinking and drug use before sex and using a condom are calculated among students who have ever had sexual intercourse.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey
Disabilities^a and Protective Factors^b
Among High School Students
(in percentages)

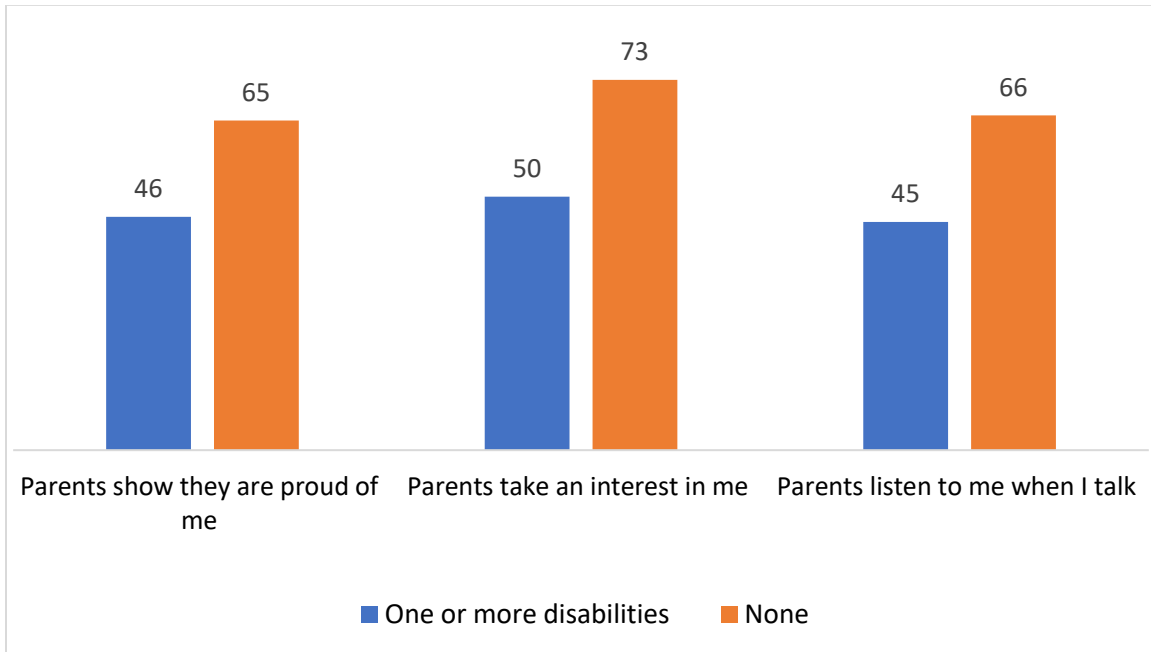


Figure 181: Disability, protective factors, HS

Notes:

Unless otherwise noted, all estimates are statistically significant at the p<.05 level.

^a Disabilities are defined in the YRBS as serious difficulty hearing or seeing, difficulty walking or climbing stairs, or difficulty concentrating, remembering, making decisions, or doing things due to a physical, emotional, or learning disability identified by the student or a doctor/healthcare professional.

^b Students who responded “always or almost always” when asked how often their parents show they are proud, take an interest, or listen when they talk.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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11. Adverse Childhood Experiences

National Overview

Adverse childhood experiences (ACEs) are traumatic events or conditions, such as abuse, neglect, homelessness, etc., that have been associated with toxic stress, health risk behaviors, and lifelong impacts. The research indicates that youth who experience significant traumas are likely to experience poorer health outcomes throughout their lifespan and even premature death. The number of ACEs that an individual experiences has an accumulated impact; a recent analysis indicates that individuals who experience six or more ACEs have a shorter life expectancy by up to 20 years (Storrs, 2009). However, the presence of a supportive and caring adult has been associated with higher rates of resiliency among those who have experienced childhood trauma. In short, without intervention and support, children who experience traumatic events are likely to have increased health problems throughout their lives—lives that are likely to be shorter than the lives of others (Centers for Disease Control and Prevention [CDC], n.d.).

In the original ACEs study, conducted in the mid-90s (Felitti et al., 1998), more than 17,000 adults in an outpatient healthcare setting were asked to report on their childhood experiences regarding the following 10 indicators:

- emotional, physical, sexual abuse
- emotional and physical neglect
- parental divorce/separation
- living in a household with a person who has a mental illness
- living in a household with a person who abuses substances
- parental incarceration
- exposure to domestic violence

Nearly two out of three respondents reported experiencing one or more ACE, with one in eight participants experiencing four or more (CDC, n.d.). Since then, various researchers have examined additional indicators, such as bullying, discrimination, economic hardship, and violence within the community (as distinct from domestic violence). More recently, the Behavioral Risk Factor Surveillance System (BRFSS) data collected across 25 states from 2015 to 2017 indicates that nearly six in ten individuals in the U.S. experienced at least one ACE, and that one in six (15.6%) experienced four or more (Merrick et al., 2019). The more ACEs an individual experiences, the greater the likelihood he or she will experience poorer health status (Hussaini et al., 2016).

Delaware Overview

To address this public health challenge, in 2018 Governor John Carney issued Executive Order 24 to establish Delaware as a “trauma-informed state” to mitigate the impact of childhood adversities and foster resilience at the individual, family, and community levels. First Lady Tracey Quillen Carney initiated the [Trauma-Informed Delaware](#) coalition bringing together public, private, and non-profit organizations. Subsequently, the Family Services Cabinet Council’s Trauma-Informed Care Progress Report and Action Plan was released, and Delaware’s inaugural Trauma Awareness Month was observed in May 2019 with a statewide symposium, multiple advocacy events, and the Compassionate Champion Awards. A series of working groups have been established to advance the work of the initiative.

Available data suggest that Delaware residents experience rates of childhood adversity that are similar to national rates. In 2015, the Delaware Public Health Institute conducted the Delaware Household Health Survey, which asked adult respondents about their experiences with childhood trauma. When considering the original 10 ACE indicators, half of adults in Delaware reported experiencing one or more ACE, with 13.8% reporting four or more. The most commonly identified ACEs were parental divorce or separation (31.7%), followed by living in a household with someone who had abused substances (20.6%). When factoring in being bullied and/or experiencing discrimination (two indicators added to the Delaware survey), 59% of adults reported having at least one ACE, with 16% reporting four or more (Public Health Management Corporation, 2016; Fink, 2016).¹⁰

In terms of youth data, since 2011 the National Survey of Children’s Health (NSCH) has included a number of indicators relating to trauma and resiliency within the household. However, the survey, administered to parents who report on the health of their children, does not include questions on abuse or neglect. NSCH 2016-2018 data includes an aggregate sample of 1,916 parent respondents. Preliminary analysis (Figures 182-189, Hussaini, 2020) indicate that approximately 43% of children in Delaware experience at least one ACE, most commonly having divorced/separated parents or economic hardship. The third most common ACE, which impacts 9% of children in Delaware, is parental incarceration. Eight percent of Delaware youth live with someone in the household who has a drug or alcohol problem, and the roughly the same number live with a household member who suffers from a mental illness. Parents report that more than 5% have been treated unfairly because of race. Approximately one in four children in Delaware experience one ACE, and almost one in five have two or more. As the NSCH graphs illustrate, there are certain groups who experience higher rates of ACEs, including youth who are African American, whose parents were born outside of the US, who are poor, or who have special healthcare needs.

¹⁰ In an effort to capture more recent data on the prevalence of ACEs among Delaware adults, the Division of Public Health incorporated the ACEs module into the CDC’s 2019 Behavioral Risk Factor Surveillance System (BRFSS) questionnaire. Data was not available at the time of this publication, however, the SEOW will highlight the findings in future products.

The Delaware Youth Risk Behavior Survey (YRBS) includes a number of questions that address trauma, such as parental incarceration, being bullied, and exposure to various types of violence. Because the survey also includes questions regarding substance use and mental health, the data provides us with an opportunity to explore the association between trauma and a spectrum of risk behaviors and other experiences. The results of the 2019 Delaware YRBS again illustrate that youth who report experiencing trauma have higher rates of all substance use, as well as symptoms of depression, including self-harm and suicide attempts. Students who experience multiple ACEs have even greater rates of substance use or mental health concerns.¹¹

By examining these associations, policy analysts and practitioners can begin to consider how early interventions and universally employed, trauma-informed approaches may improve lifelong health consequences and the associated costs for individuals, families, and society.

¹¹ It is important to note that while there is a statistical association between these factors, this does not necessarily mean that there is a causal relationship between these variables in every instance, and there may be additional unobserved indicators that also influence the outcome. This holds true for all of the associations discussed in this chapter.

2016-2018 National Survey of Children's Health Adverse Childhood Experiences (ACE) Among Children 0 to 17 by Specific ACE Indicator, Delaware and the US (in percentages)

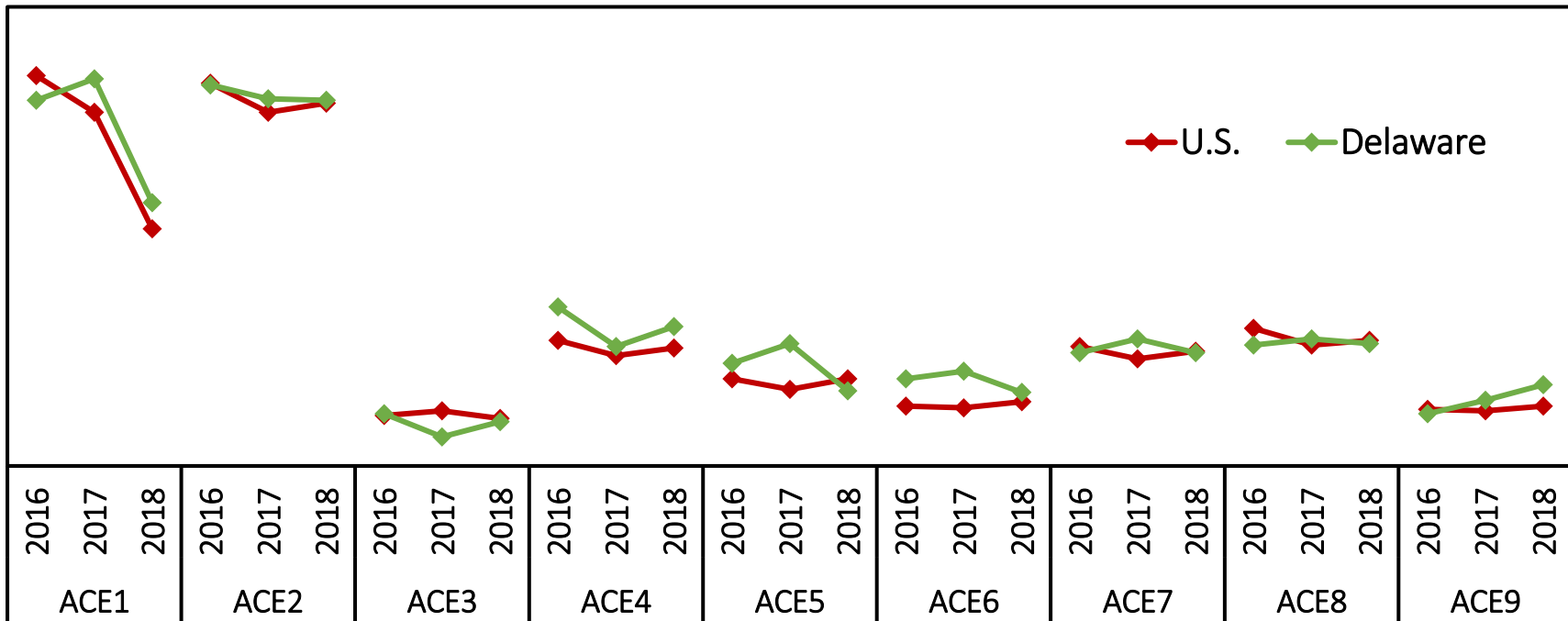


Figure 182: Adverse childhood experiences, by specific indicator, Delaware and National comparisons, ages 0-17

Note: Adverse Childhood Experiences – ACE 1: Hard to Cover Basics Like Food or Housing; ACE 2: Child Experienced - Parent or Guardian Divorced; ACE 3: Child Experienced - Parent or Guardian Died; ACE 4: Child Experienced - Parent or Guardian Time in Jail; ACE 5: Child Experienced - Adults Slap, Hit, Kick, Punch Others; ACE 6: Child Experienced - Victim of Violence; ACE 7: Child Experienced - Lived with Mentally Ill; ACE 8: Child Experienced - Lived with Person with Alcohol/Drug Problem; ACE 9: Child Experienced - Treated Unfairly Because of Race.

Source: Hussaini, K. DE Dept. of Health and Social Services, Div. of Public Health, Preliminary Analysis, National Survey of Children's Health, 2016-2018.

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**2016-2018 National Survey of Children’s Health
Adverse Childhood Experiences (ACE) Among Children 0 to 17, Aggregated,
Delaware and the U.S. (in percentages)**

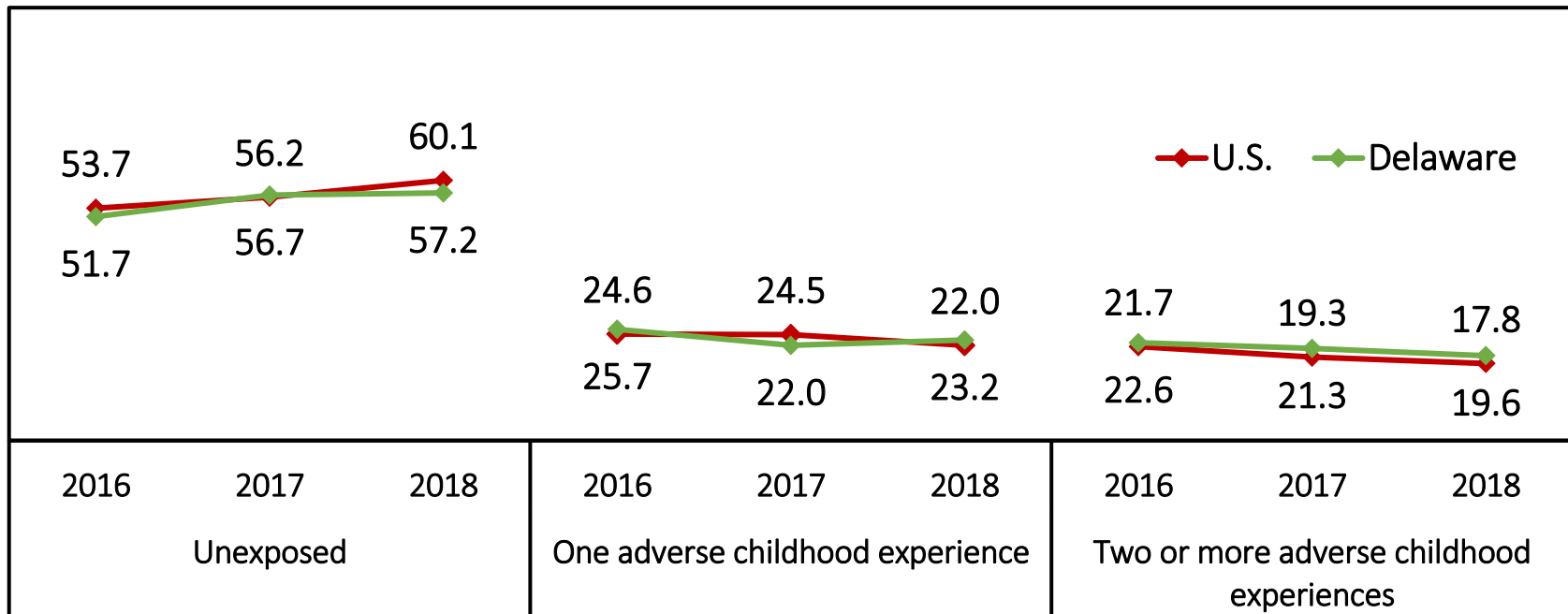


Figure 183: Adverse childhood experiences, aggregated, Delaware and National Comparison, ages 0-17

Note: Adverse Childhood Experiences – ACE 1: Hard to Cover Basics Like Food or Housing; ACE 2: Child Experienced - Parent or Guardian Divorced; ACE 3: Child Experienced - Parent or Guardian Died; ACE 4: Child Experienced - Parent or Guardian Time in Jail; ACE 5: Child Experienced - Adults Slap, Hit, Kick, Punch Others; ACE 6: Child Experienced - Victim of Violence; ACE 7: Child Experienced - Lived with Mentally Ill; ACE 8: Child Experienced - Lived with Person with Alcohol/Drug Problem; ACE 9: Child Experienced - Treated Unfairly Because of Race.

Source: Hussaini, K. DE Dept. of Health and Social Services, Div. of Public Health, Preliminary Analysis, National Survey of Children’s Health, 2016-2018.

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**2016-2018 National Survey of Children’s Health
Adverse Childhood Experiences (ACE) Among Children 0 to 17 in Delaware, by Sex
(in percentages)**

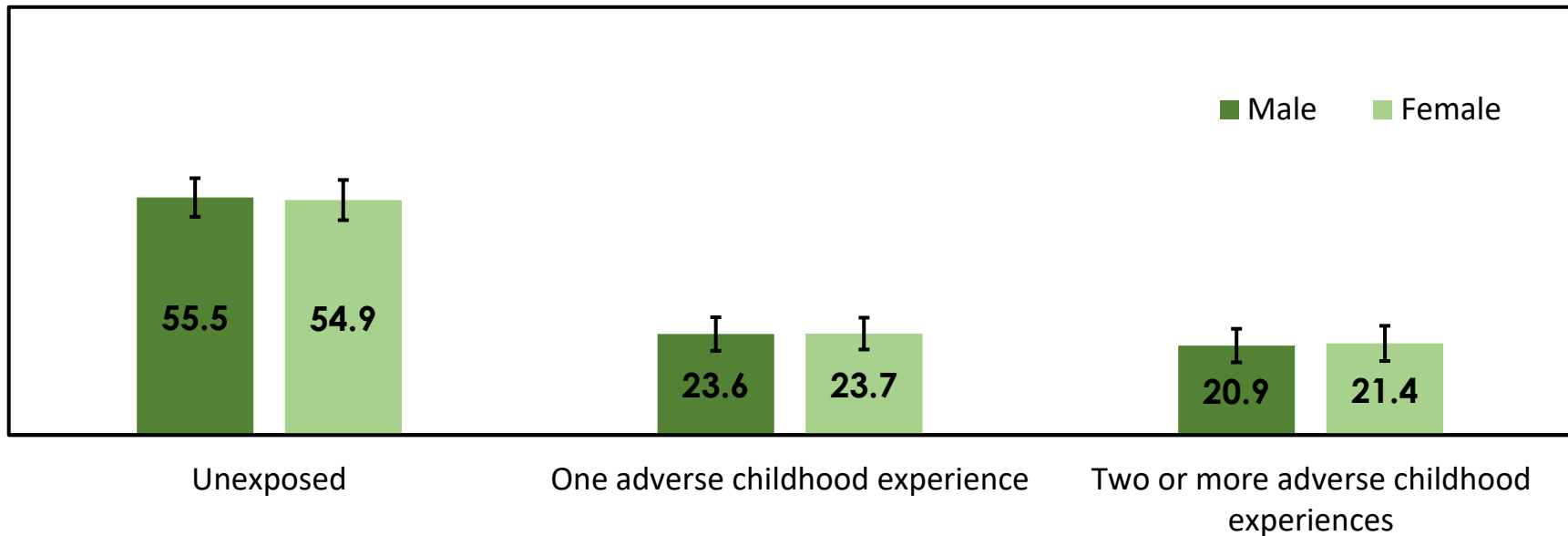


Figure 184: Adverse childhood experiences, aggregated, by sex, ages 0-17

Note: Adverse Childhood Experiences – ACE 1: Hard to Cover Basics Like Food or Housing; ACE 2: Child Experienced - Parent or Guardian Divorced; ACE 3: Child Experienced - Parent or Guardian Died; ACE 4: Child Experienced - Parent or Guardian Time in Jail; ACE 5: Child Experienced - Adults Slap, Hit, Kick, Punch Others; ACE 6: Child Experienced - Victim of Violence; ACE 7: Child Experienced - Lived with Mentally Ill; ACE 8: Child Experienced - Lived with Person with Alcohol/Drug Problem; ACE 9: Child Experienced - Treated Unfairly Because of Race.

Source: Hussaini, K. DE Dept. of Health and Social Services, Div. of Public Health, Preliminary Analysis, National Survey of Children’s Health, 2016-2018.

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**2016-2018 National Survey of Children’s Health
Adverse Childhood Experiences (ACE) Among Children 0 to 17 in Delaware, by Age
(in percentages)**

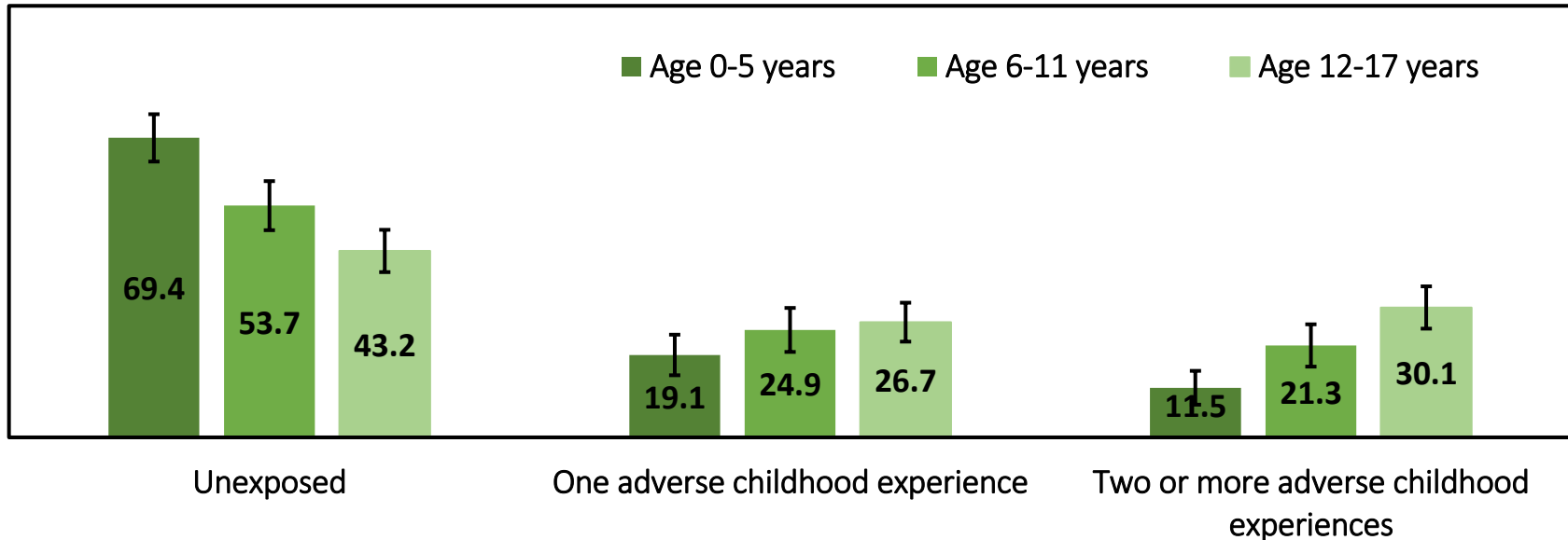


Figure 185: Adverse childhood experiences, aggregated, by age, ages 0-17

Note: Adverse Childhood Experiences – ACE 1: Hard to Cover Basics Like Food or Housing; ACE 2: Child Experienced - Parent or Guardian Divorced; ACE 3: Child Experienced - Parent or Guardian Died; ACE 4: Child Experienced - Parent or Guardian Time in Jail; ACE 5: Child Experienced - Adults Slap, Hit, Kick, Punch Others; ACE 6: Child Experienced - Victim of Violence; ACE 7: Child Experienced - Lived with Mentally Ill; ACE 8: Child Experienced - Lived with Person with Alcohol/Drug Problem; ACE 9: Child Experienced - Treated Unfairly Because of Race.

Source: Hussaini, K. DE Dept. of Health and Social Services, Div. of Public Health, Preliminary Analysis, National Survey of Children’s Health, 2016-2018.

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2016-2018 National Survey of Children's Health
Adverse Childhood Experiences (ACE) Among Children 0 to 17 in Delaware, by Poverty
(in percentages)

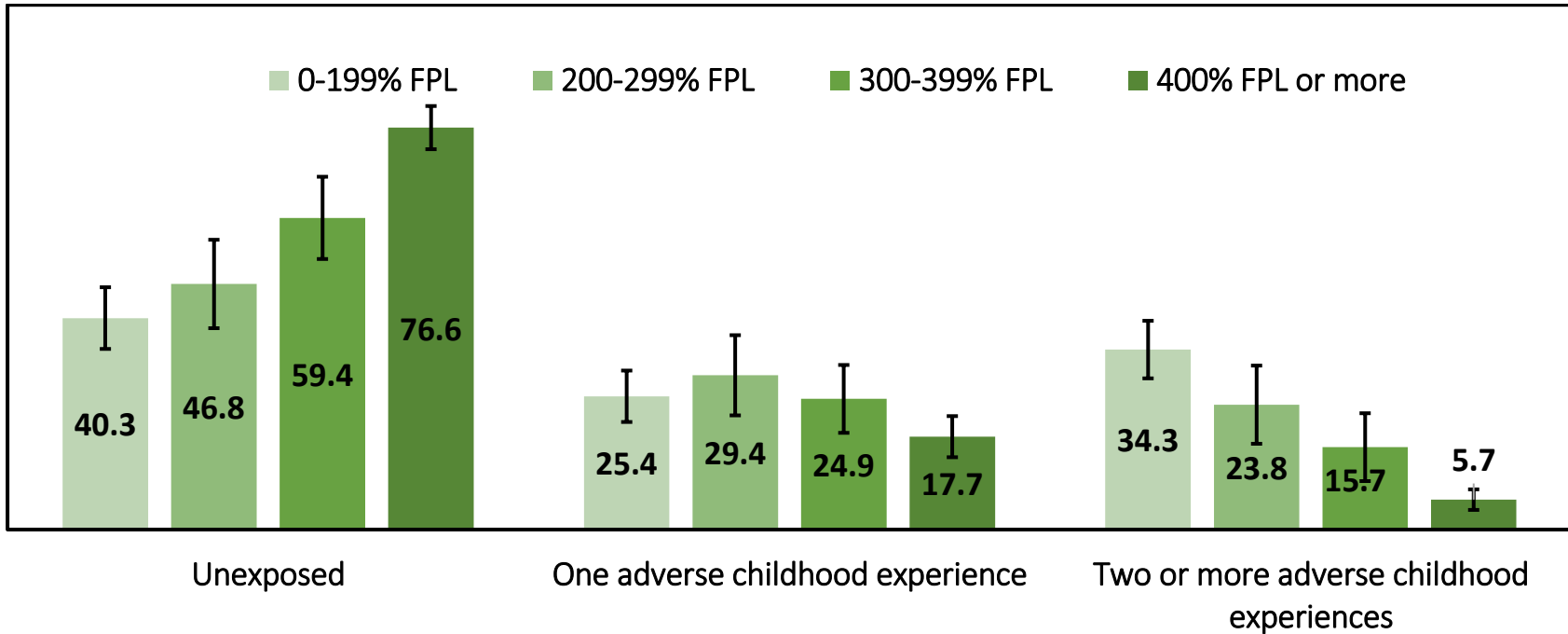


Figure 186: Adverse childhood experiences, aggregated, by poverty level, ages 0-17

Note: Adverse Childhood Experiences – ACE 1: Hard to Cover Basics Like Food or Housing; ACE 2: Child Experienced - Parent or Guardian Divorced; ACE 3: Child Experienced - Parent or Guardian Died; ACE 4: Child Experienced - Parent or Guardian Time in Jail; ACE 5: Child Experienced - Adults Slap, Hit, Kick, Punch Others; ACE 6: Child Experienced - Victim of Violence; ACE 7: Child Experienced - Lived with Mentally Ill; ACE 8: Child Experienced - Lived with Person with Alcohol/Drug Problem; ACE 9: Child Experienced - Treated Unfairly Because of Race.

Source: Hussaini, K. DE Dept. of Health and Social Services, Div. of Public Health, Preliminary Analysis, National Survey of Children's Health, 2016-2018.

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**2016-2018 National Survey of Children’s Health
Adverse Childhood Experiences (ACE) Among Children 0 to 17 in Delaware, by Race
(in percentages)**

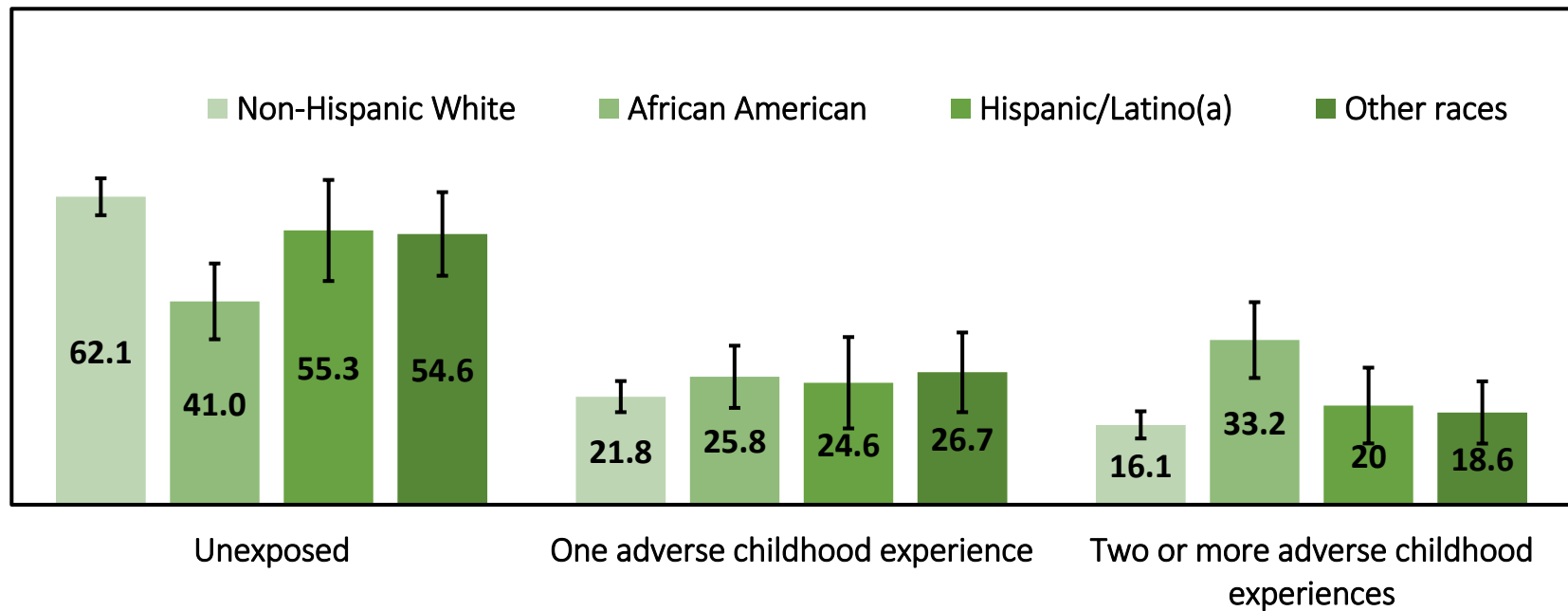


Figure 187: Adverse childhood experiences, aggregated, by race, ages 0-17

Note: Adverse Childhood Experiences – ACE 1: Hard to Cover Basics Like Food or Housing; ACE 2: Child Experienced - Parent or Guardian Divorced; ACE 3: Child Experienced - Parent or Guardian Died; ACE 4: Child Experienced - Parent or Guardian Time in Jail; ACE 5: Child Experienced - Adults Slap, Hit, Kick, Punch Others; ACE 6: Child Experienced - Victim of Violence; ACE 7: Child Experienced - Lived with Mentally Ill; ACE 8: Child Experienced - Lived with Person with Alcohol/Drug Problem; ACE 9: Child Experienced - Treated Unfairly Because of Race.

Source: Hussaini, K. DE Dept. of Health and Social Services, Div. of Public Health, Preliminary Analysis, National Survey of Children’s Health, 2016-2018.

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**2016-2018 National Survey of Children’s Health
Adverse Childhood Experiences (ACE) Among Children 0 to 17 in Delaware,
by Parent Place of Birth
(in percentages)**

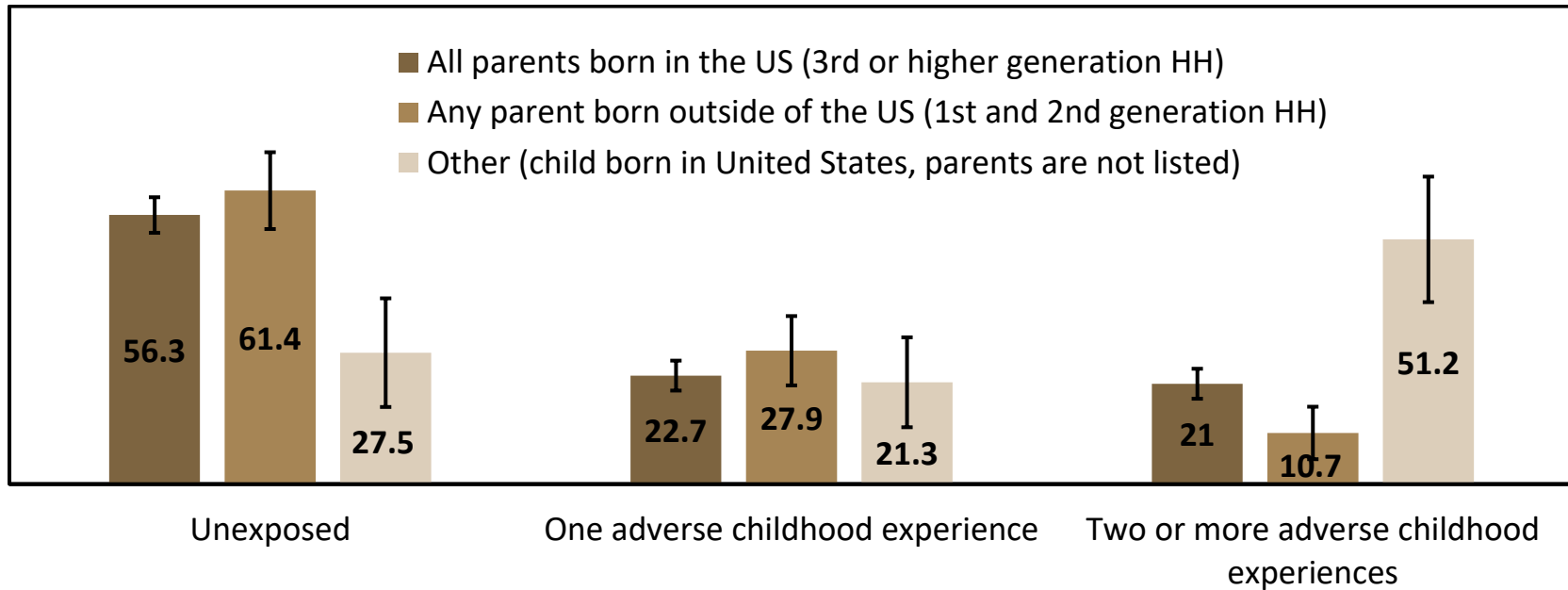


Figure 188: Adverse childhood experiences, aggregated, by parent place of birth, ages 0-17

Note: Adverse Childhood Experiences – ACE 1: Hard to Cover Basics Like Food or Housing; ACE 2: Child Experienced - Parent or Guardian Divorced; ACE 3: Child Experienced - Parent or Guardian Died; ACE 4: Child Experienced - Parent or Guardian Time in Jail; ACE 5: Child Experienced - Adults Slap, Hit, Kick, Punch Others; ACE 6: Child Experienced - Victim of Violence; ACE 7: Child Experienced - Lived with Mentally Ill; ACE 8: Child Experienced - Lived with Person with Alcohol/Drug Problem; ACE 9: Child Experienced - Treated Unfairly Because of Race.

Source: Hussaini, K. DE Dept. of Health and Social Services, Div. of Public Health, Preliminary Analysis, National Survey of Children’s Health, 2016-2018.

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**2016-2018 National Survey of Children’s Health
Adverse Childhood Experiences (ACE) Among Children 0 to 17 in Delaware,
by Special Healthcare Needs (SHCN) (in percentages)**

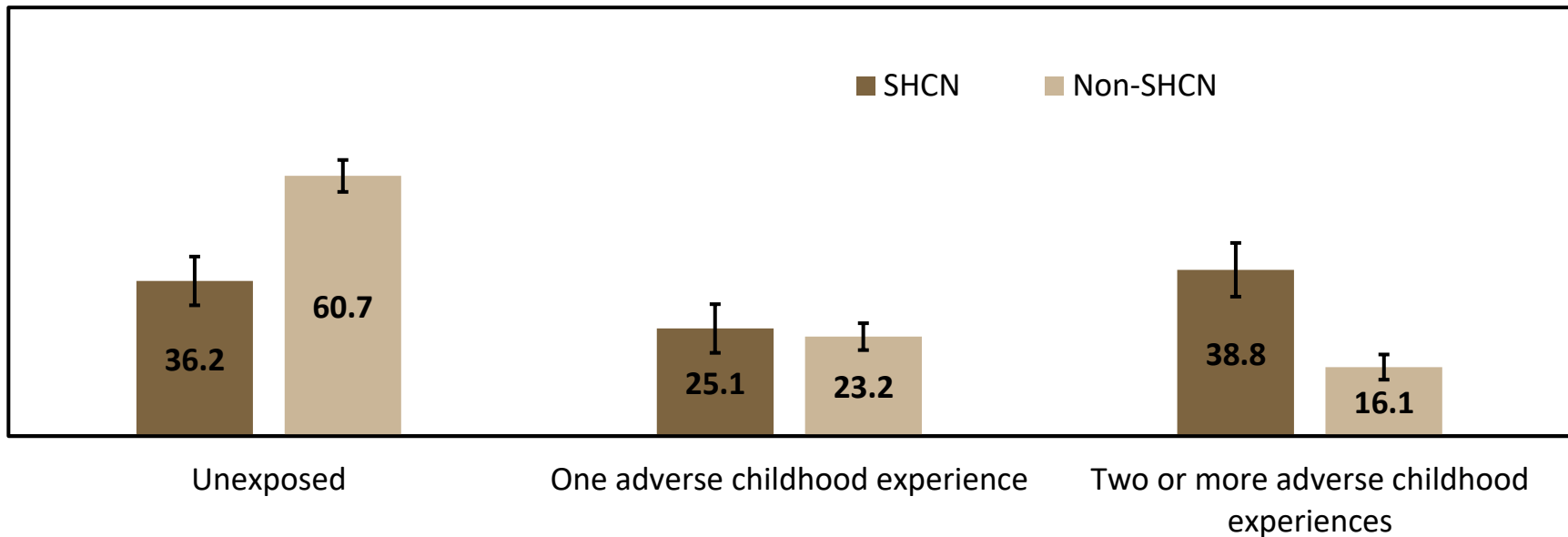


Figure 189: Adverse childhood experiences, aggregated, by special healthcare needs, ages 0-17

Note: Adverse Childhood Experiences – ACE 1: Hard to Cover Basics Like Food or Housing; ACE 2: Child Experienced - Parent or Guardian Divorced; ACE 3: Child Experienced - Parent or Guardian Died; ACE 4: Child Experienced - Parent or Guardian Time in Jail; ACE 5: Child Experienced - Adults Slap, Hit, Kick, Punch Others; ACE 6: Child Experienced - Victim of Violence; ACE 7: Child Experienced - Lived with Mentally Ill; ACE 8: Child Experienced - Lived with Person with Alcohol/Drug Problem; ACE 9: Child Experienced - Treated Unfairly Because of Race.

Source: Hussaini, K. DE Dept. of Health and Social Services, Div. of Public Health, Preliminary Analysis, National Survey of Children’s Health, 2016-2018.

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**2019 Delaware Youth Risk Behavior Survey
Adverse Childhood Experiences (ACEs)^a
Among High School Students
(in percentages)**

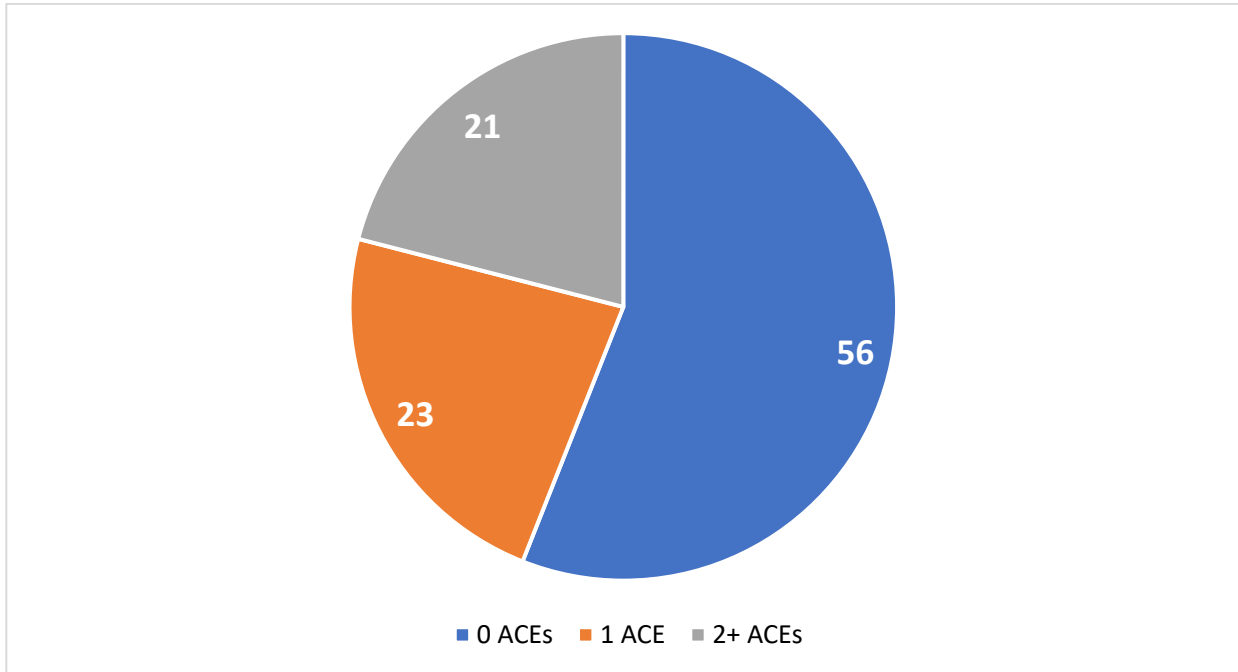


Figure 190: Adverse childhood experiences, HS

Notes:

^aStudents who confirmed experiencing any of the following events: homelessness, incarcerated parent, fighting, being threatened, being bullied, or teen dating violence or sexual violence, were placed in either “1 ACE” or “2 or More ACEs” category depending on the number of different experiences they reported.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\].](#)

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2019 Delaware Youth Risk Behavior Survey Prevalence of Individual ACEs Indicators Among High School Students (in percentages)

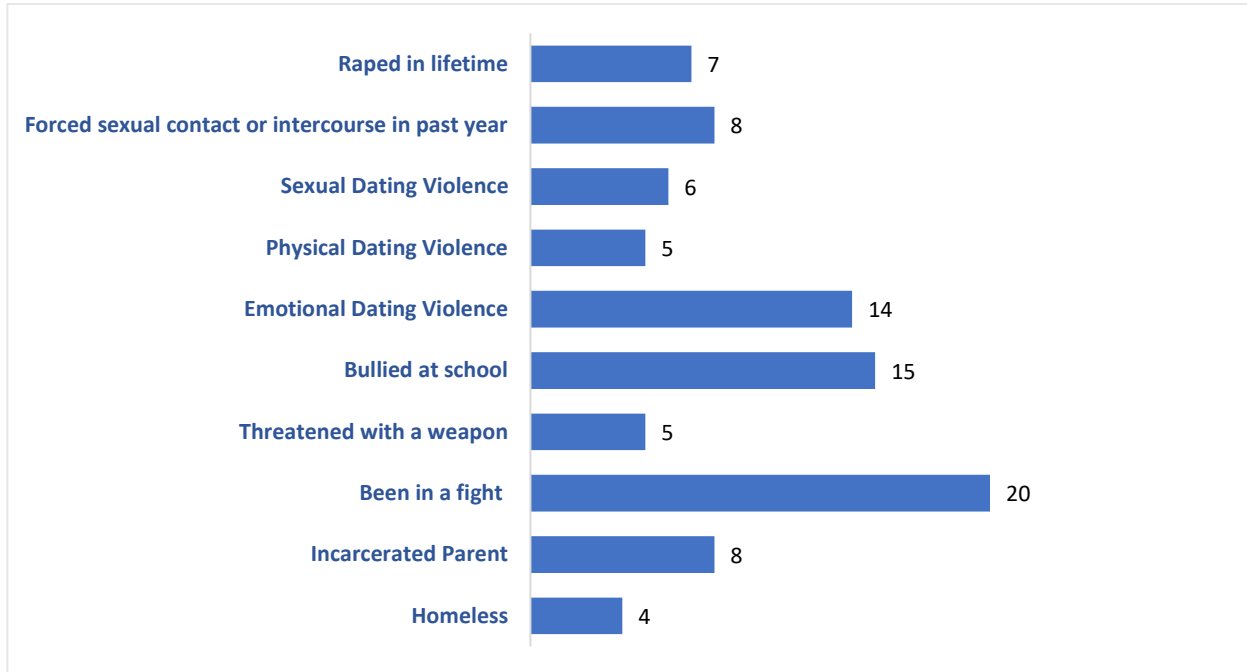


Figure 191: Individual ACEs Indicators, HS

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\].](#)

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2019 Delaware Youth Risk Behavior Survey Adverse Childhood Experiences by Sex Among High School Students (in percentages)

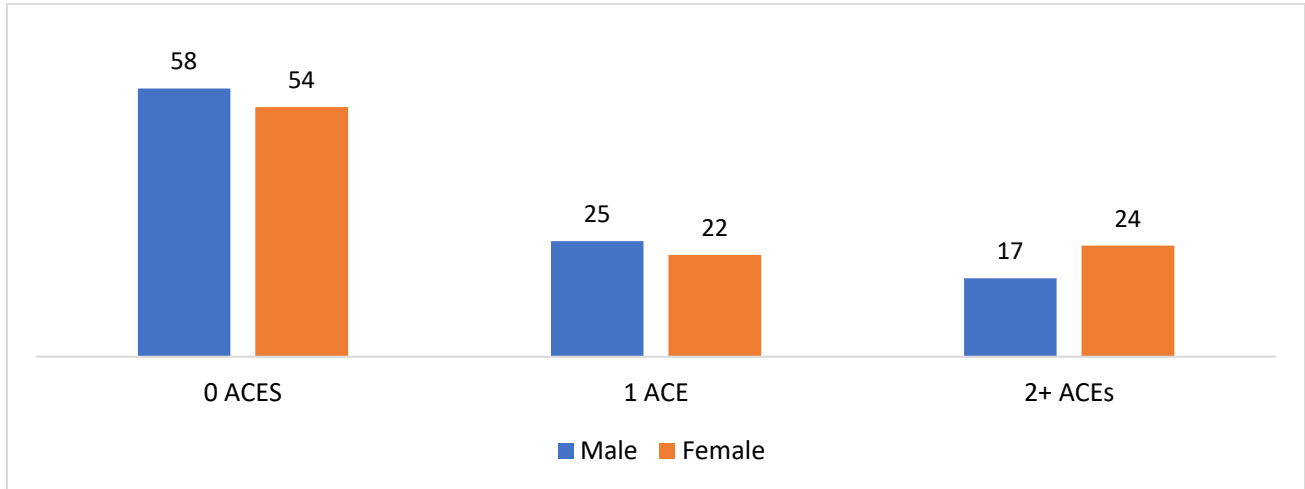


Figure 192: Adverse Childhood Experiences by sex, HS

Adverse Childhood Experiences by Race and Ethnicity Among High School Students (in percentages)

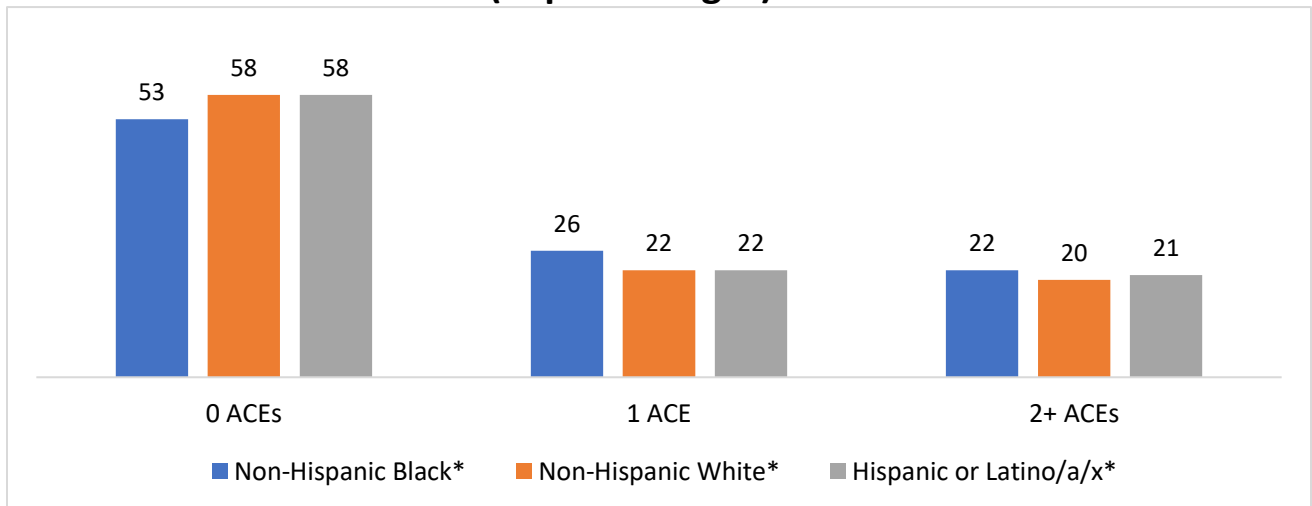


Figure 193: Adverse Childhood Experiences by race, HS

Note:

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

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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**2019 Delaware Youth Risk Behavior Survey
Adverse Childhood Experiences by Grade
Among High School Students
(in percentages)**

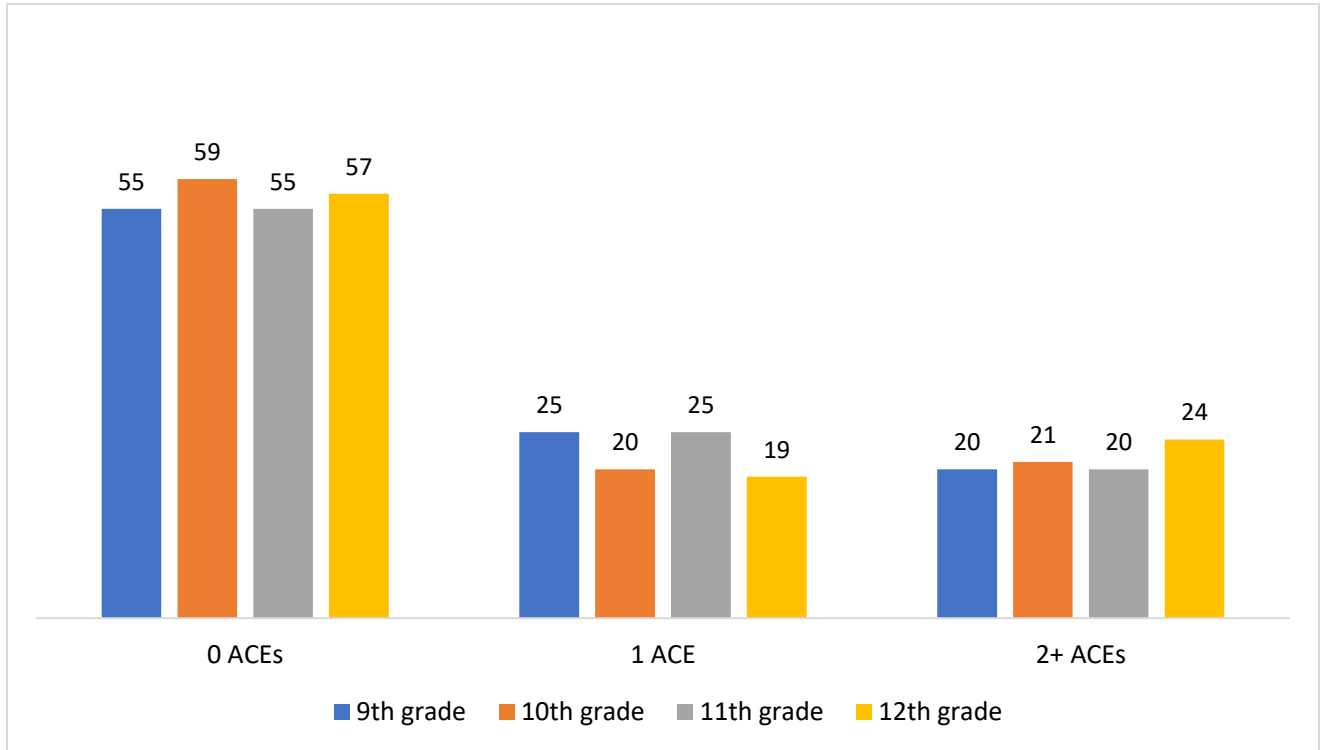


Figure 194: Adverse Childhood Experiences by grade, HS

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey
ACEs^a and Past Month Substance Use
Among High School Students
(in percentages)

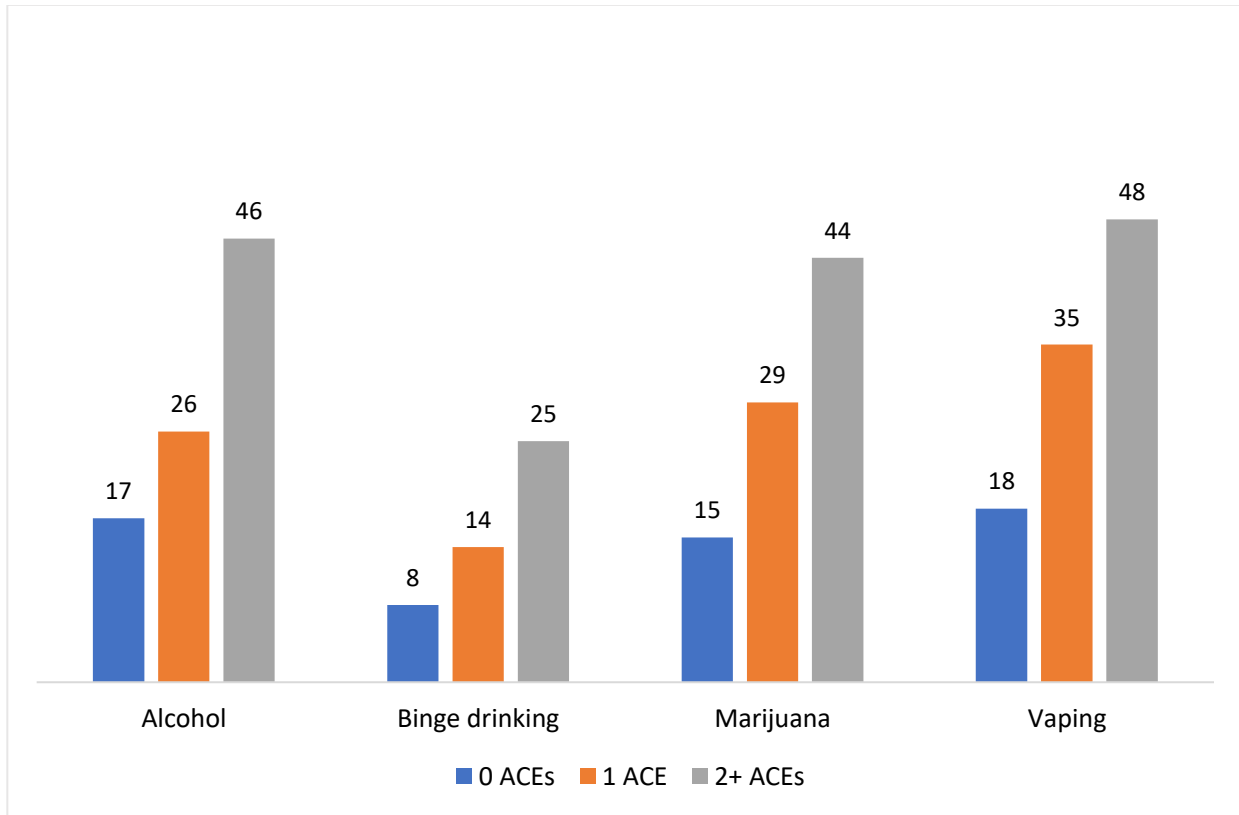


Figure 195: Adverse childhood experiences and past month substance use, HS

Notes:

^aStudents who confirmed experiencing any of the following events: homelessness, incarcerated parent, fighting, being threatened, being bullied, or teen dating violence or sexual violence, were placed in either “1 ACE” or “2 or More ACEs” category depending on the number of different experiences they reported.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey ACEs^a and Past Year Self-Reported Mental Health Among High School Students (in percentages)

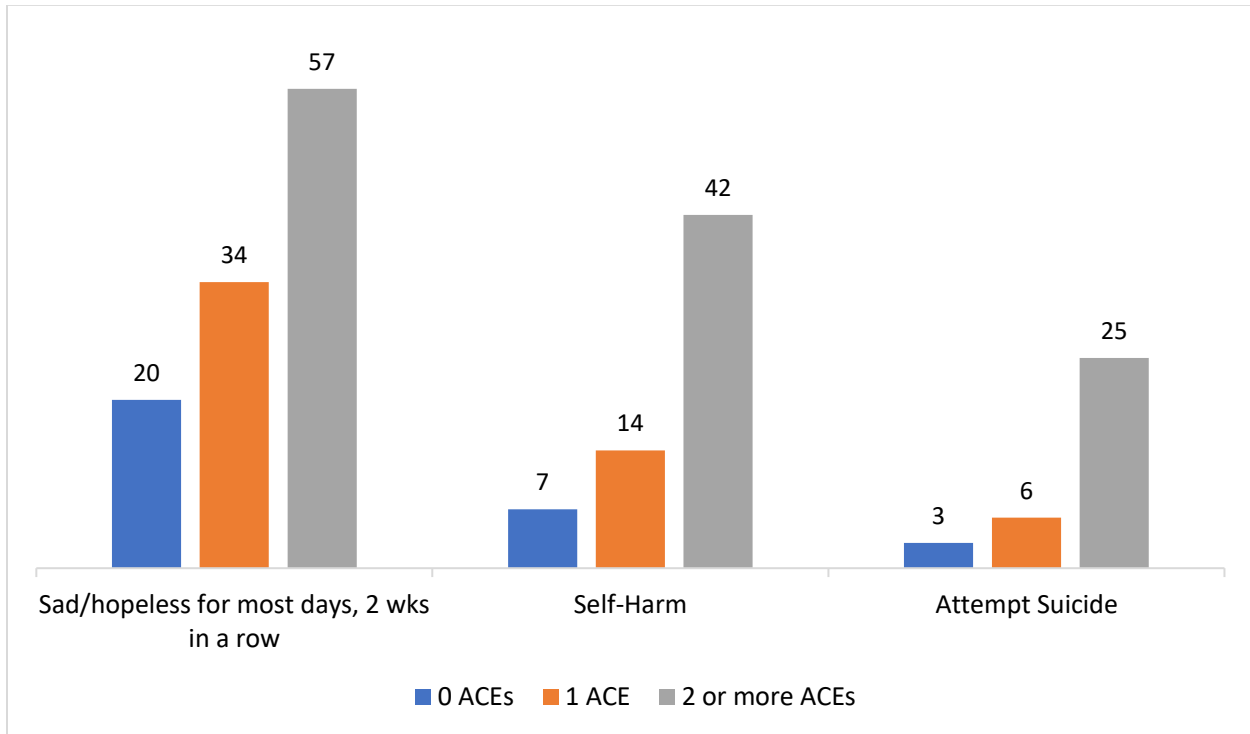


Figure 196: Adverse childhood experiences and past year mental health indicators, HS

Notes:

^aStudents who confirmed experiencing any of the following events: homelessness, incarcerated parent, fighting, being threatened, being bullied, or teen dating violence or sexual violence, were placed in either “1 ACE” or “2 or More ACEs” category depending on the number of different experiences they reported.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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12. Gender and Sexuality

National Overview

It is estimated that there are more than one million transgender¹² adults in the country (Meerwijk and Sevelius, 2017) and more than ten million lesbian, gay, or bisexual adults; altogether, the lesbian, gay, bisexual, and transgender (LGBT)¹³ population constitutes roughly 4.5% of the adult U.S. population (Williams Institute, 2019). Members of the LGBTQ^{14, 15} community have consistently faced discrimination, harassment, and violence at the interpersonal and at the systemic level, and it is only in recent years that significant legal rulings have begun to extend major civil rights protections to LGBTQ individuals. Same-sex marriage was legalized in the U.S. only five years ago (Obergefell v. Hodges, 2015); prior to this ruling, same sex couples faced barriers in accessing the same relationship privileges granted to heterosexual couples, such as eligibility for spousal benefits in health insurance and next-of-kin rights. In June 2020, the Supreme Court ruled in a series of employment discrimination cases that employers could not fire employees on the basis of their sexual orientation or gender identity (Bostock v. Clayton County, 2020), finally granting protections to LGBTQ Americans under Title VII of the Civil Rights Act of 1964.

Despite making up a substantial portion of the population and ample evidence of discriminatory practices and policies, historically, research on LGBTQ individuals has not been robust nor conducted on a nationally representative scale. There is no government mandate to include sexual orientation and gender identity as demographic categories on government collected and federally funded data, although some individual states and provinces do collect this data (Persad, 2019). In the 2020 Census, while respondents are now able to identify whether they have a same-sex partner when answering the question about their household composition, there still are not more specific questions related to sexual orientation and gender identity (SAGE, 2020; U.S. Census Bureau, 2020). This will necessarily result in an undercount, as not all

¹² Someone is transgender when their gender identity is different from the sex that they were assigned at birth; the term cisgender is used to describe people whose sex at birth and gender identity are aligned.

¹³ While the acronym LGBT explicitly references lesbian, gay, bisexual, and transgender identities, there are a variety of sexual orientations and gender identities that may be included within this community, such as pansexual, asexual, queer, non-binary, or people who are questioning their sexual orientation and/or gender identity.

¹⁴ The letter “Q” has multiple meanings in this context. It is typically short for queer but can represent those individuals who do not feel fully represented by the adjectives of lesbian, gay, bisexual, or transgender, or those who are questioning or unsure how they identify in terms of sexual orientation, gender identity, or in terms of gender expression. In the data discussion of the Delaware Context section of this narrative, the “Q” represents students who are questioning. While the LGBTQ acronym (or LGBT depending on the wording of the referenced data source) is used in this text, it is important to acknowledge that this is an imperfect and non-exhaustive identifier, and many sources may use variations of this acronym to refer to the community. The [Trevor Support Center](#) and [GLSEN](#) offer terminology resources on this topic.

¹⁵ Gender expression refers to how an individual presents gender identity. Although this is an important topic there is very little available data, therefore it is beyond the scope of the current discussion.

LGBTQ people are in same-sex relationships or married to their partners. The relative invisibility of LGBTQ people in these data poses serious problems when it comes to issues of resource allocation and LGBTQ inclusion in important policy and funding decisions.

Collecting data on this population is important but difficult, as sexuality and gender categories are often fluid and evolving over the life course, while typical demographic measures are fixed (Ruberg and Ruelos, 2020). The Human Rights Commission (HRC) in 2019 issued a report advocating for more expansive data collection on this population and provided some guidelines for best practices in how to construct survey questions on the topics of gender and sexuality. Some of these guidelines included: frame questions so that sexual orientation and gender identity are self-identified; use open-ended response categories in survey questions; allow for self-administration of survey questions pertaining to sexuality and gender; and assure respondents' confidentiality or anonymity so they feel safe in disclosing their identities (Persad, 2019). In their inaugural survey, the Trevor Project reported collecting responses from more than 100 different sexual orientations and gender identities among youth and young adults ages 13-24 (Trevor Project, 2019), further underscoring the vast diversity of the LGBTQ community and the challenge of accurately representing all identities within data collection efforts.

Most existing research provides strong evidence for the disadvantages faced by members of the LGBTQ community that is also associated with disproportionate risk for substance use, poor mental health, social and emotional instability, and violent victimization. Data from the 2018 National Survey on Drug Use and Health shows that substance use among lesbian, gay, and bisexual (also termed sexual minorities) adults is higher than heterosexual adults; for example, while 16.2% of the overall adult population report using marijuana in the past year, the rate more than doubles to 37.6% for sexual minority adults (SAMHSA, 2020). LGBT people also experience sexual assault and relationship violence at higher rates than heterosexual people; results from the National Intimate Partner and Sexual Violence Survey (NISVS) indicate that 47% of bisexual women have been raped in their lifetime, compared with approximately 17% of heterosexual women (Walters, Chen, and Breiding, 2013). Young people are especially vulnerable, as rejection and lack of acceptance from family members can create unsafe home environments and contribute to a higher rate of homelessness among these youth (Cho, Wilson, Shelton, and Gates, 2015). Lesbian, gay, bisexual and questioning youth are at higher risk of using substances (Marshall et al., 2008) and experience greater rates of depression and suicidal ideation (Burton et al., 2013; Marshall et al., 2011) when compared to their heterosexual peers. The Trevor Project found that 39% of their LGBTQ respondents had seriously considered suicide in the past year, and 71% of respondents report experiencing discrimination due to their sexual orientation or gender identity. Furthermore, among transgender and non-binary youth, more than half report being discouraged from using the bathroom that they felt was most appropriate for their gender (Trevor Project, 2020). It is important to note that differences in these rates are not intrinsically associated with being

LGBTQ but rather related to the adversities that these individuals frequently face related to their sexual orientation or gender identity.

Delaware Context

The Delaware High School Youth Risk Behavior Survey (YRBS) includes a question about sexual orientation: *Which of the following best describes you?* Students are provided four response choices: *heterosexual (straight); gay or lesbian; bisexual; or not sure*. In 2017, an additional question was added regarding transgender status: *Some people describe themselves as transgender when their sex at birth does not match the way they think or feel about their gender. Are you transgender?* Four response choices are provided: *no, I am not transgender; yes, I am transgender; I am not sure if I am transgender; I do not know what this question is asking*.

The number of students who identify on the YRBS as either gay/lesbian, bisexual, transgender, or questioning provide discrete subsets of data that are too small to conduct statistically reliable and ethical data analysis. Thus, for the purposes of this analysis responses of these students have been grouped into a larger LGBTQ category¹⁶ and compared against responses of their cisgender and heterosexual peers. The students in this LGBTQ group represent a range of sexual and gender diversity, and their identities are often overlapping; many of the transgender students also identify themselves as gay, lesbian, bisexual, or unsure of their sexual orientation as well.

In the 2019 Delaware YRBS, approximately 16% of surveyed high school students report that they are either gay, lesbian, bisexual, or unsure of their sexual orientation and close to 3% of students report that they are transgender or unsure of their sexual orientation. There are some noteworthy differences in substance use rates between LGBTQ students and cisgender heterosexual students. For example, 18% of LGBTQ students and 12% of cisgender heterosexual students report binge drinking in the past month. When it comes to mental health indicators, the disparities are even greater: when comparing rates of self harm (also known as non-suicidal self-injury), planned suicides, and attempted suicides, LGBTQ students report rates more than three times greater than their peers across each of these indicators.

When it comes to measures of risk and protective factors, such as Adverse Childhood Experiences (ACEs) and parental support indicators, LGBTQ students also ranked significantly worse than their peers. While nearly two-thirds of cisgender heterosexual students report that their parents always or almost always took an interest in them, less than half of LGBTQ students report the same. Roughly one in three LGBTQ students report two or more traumatic experiences (ACEs), compared to only about one in five of their peers. There are also

¹⁶ LGBTQ YRBS data in this report include aggregated responses from students who report that they are gay, lesbian, bisexual, unsure of their sexual orientation, transgender, or unsure if they are transgender.

differences in experiences of bullying and feeling safe at school. One in twenty cisgender heterosexual students report they have skipped school because they did not feel safe to go; among LGBTQ students, that figure rises to one in ten. More than a quarter (26%) of LGBTQ students report being bullied at school in the past year, compared to roughly 12% of their peers. More effective and consistent data collection on these issues can help policy makers, educators, and practitioners understand how to better support LGBTQ students and mitigate the experiences that put them at greater risk for adverse outcomes.

2019 Delaware Youth Risk Behavior Survey Sexual Orientation Among High School Students (in percentages)



Figure 197: Sexual orientation, HS

Gender Identity among High School Students (in percentages)



Figure 198: Transgender students, HS

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Prevalence of LGBTQ High School Students (in percentages)

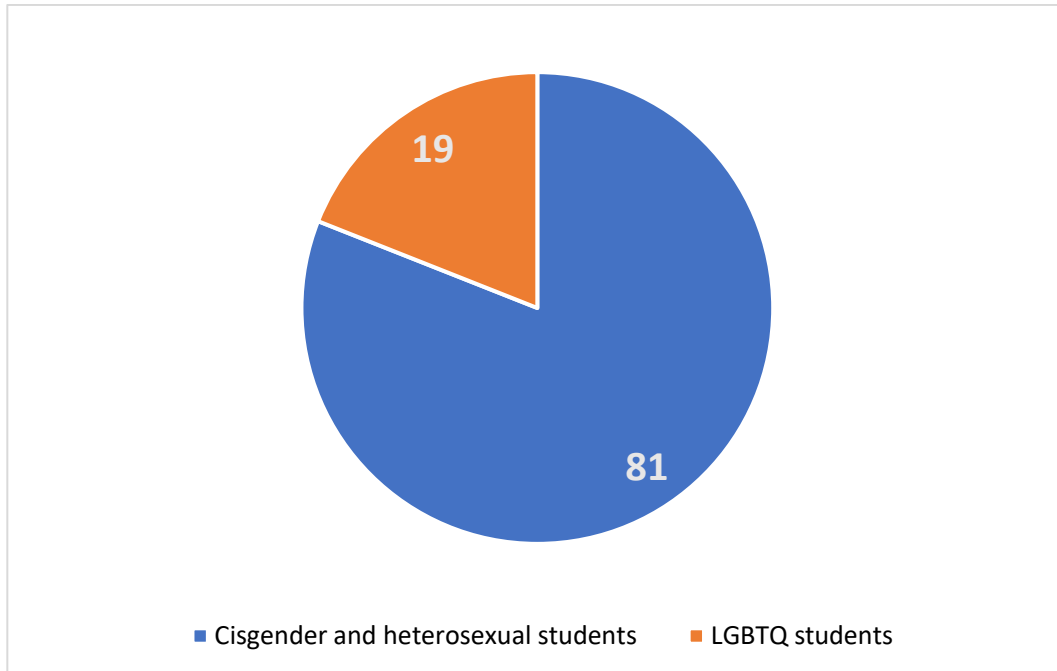


Figure 199: Prevalence of LGBTQ students, HS

Notes:

*LGBTQ includes students who identify their sexual orientation as gay or lesbian, bisexual, or not sure, and/or students who identify as transgender or unsure of their gender identity.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Past Month Substance Use Among LGBTQ High School Students (in percentages)

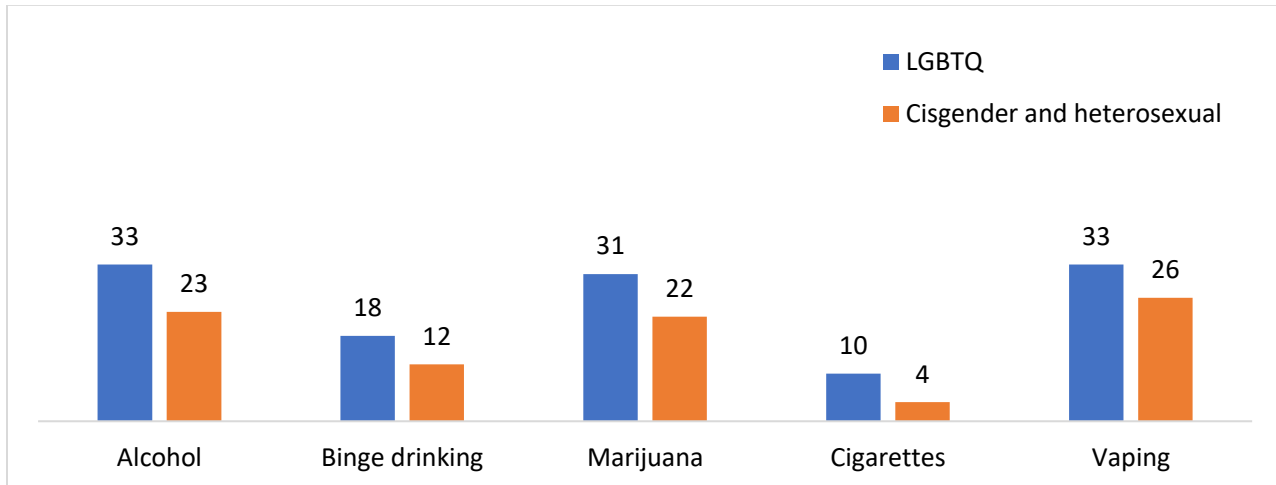


Figure 200: Past month substance use among LGBTQ students, HS

Past Year Mental Health Among LGBTQ High School Students (in percentages)

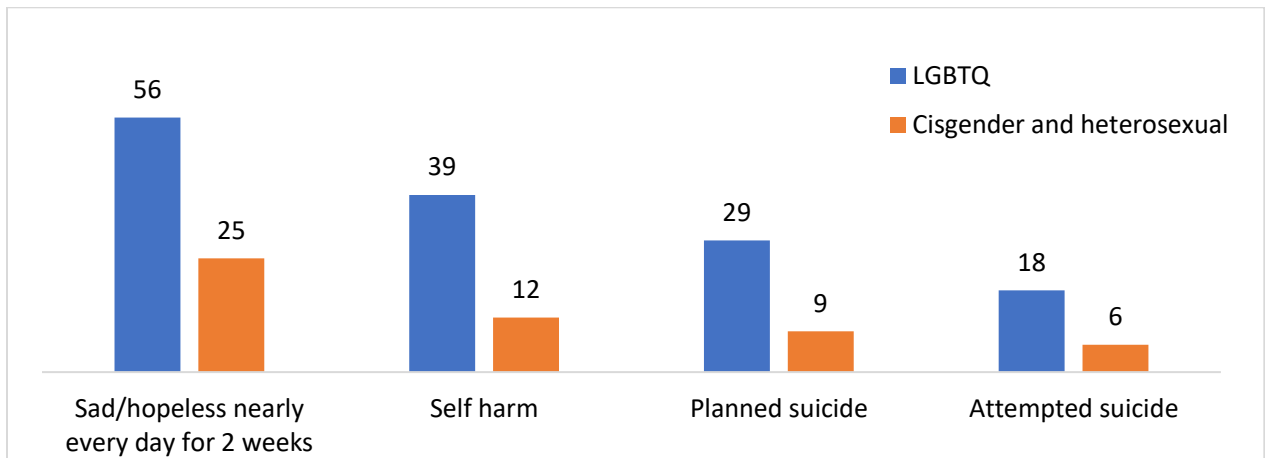


Figure 201: Past year mental health among LGBTQ students, HS

Note: "Binge drinking" is defined as five or more drinks of alcohol in a row for males/four or more drinks for females.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Prevalence of Adverse Childhood Experiences Among LGBTQ High School Students (in percentages)

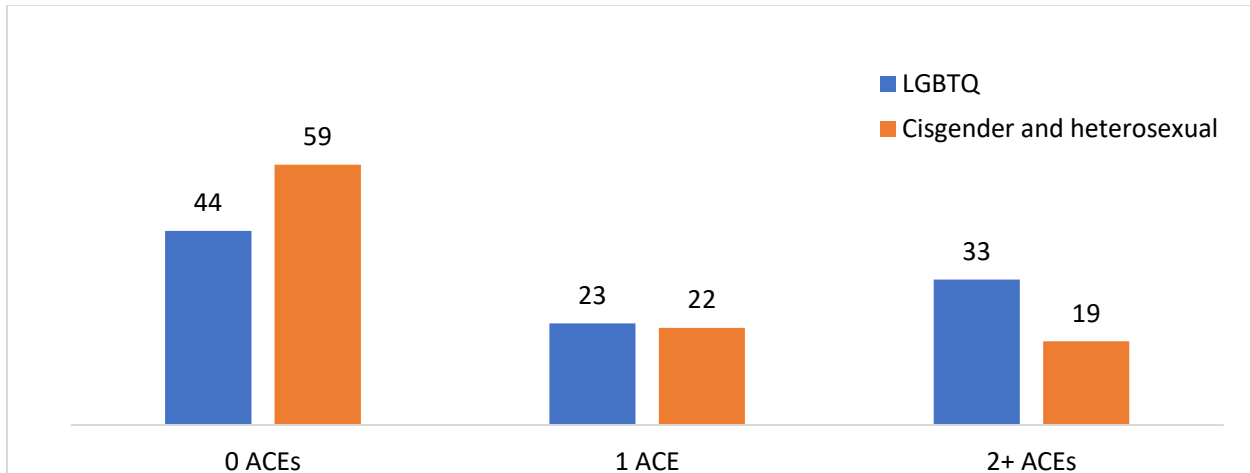


Figure 202: ACEs among LGBTQ students, HS

Bullying and School Safety Among LGBTQ High School Students (in percentages)

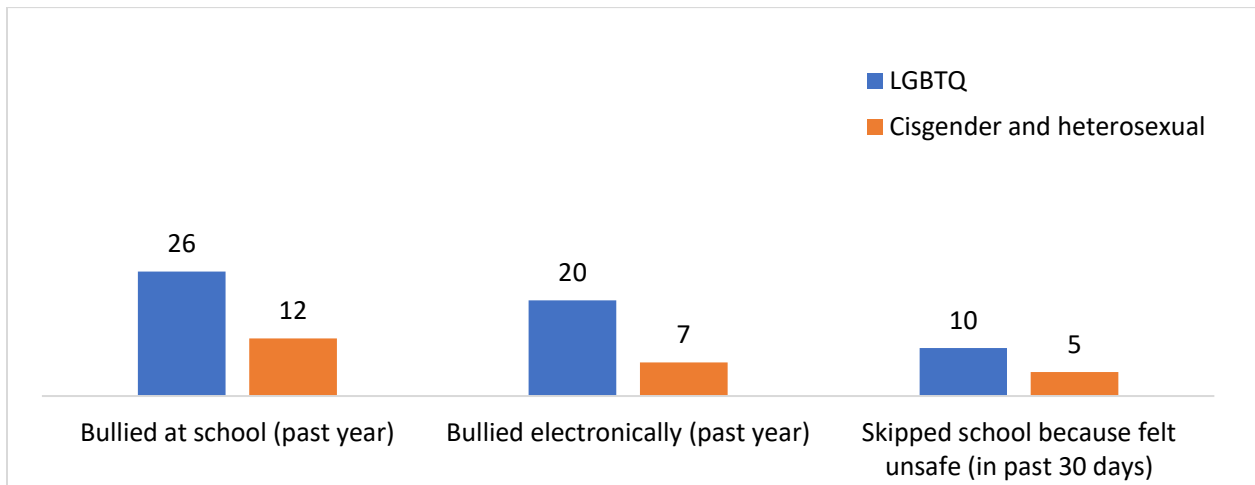


Figure 203: Bullying and school safety among LGBTQ students, HS

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Protective Factors among LGBTQ High School Students (in percentages)

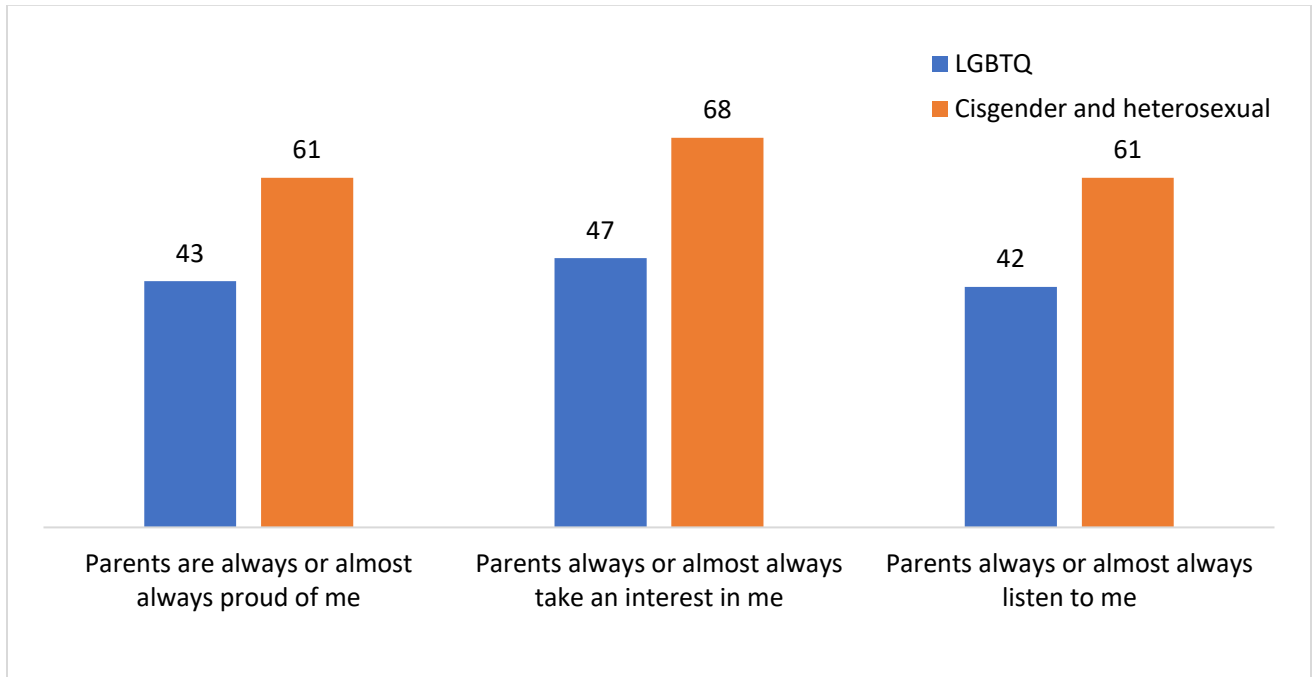


Figure 204: Protective factors among LGBTQ students, HS

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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13. Protective Factors

National Overview

Prevention research and work are grounded in the identification of risk factors that increase the probability of substance abuse and protective factors that help reduce the risk of substance abuse in the future. Targeted interventions that decrease risk factors, increase protective factors, or combine both approaches have been shown to be effective in decreasing problem substance use (youth.gov, n.d.). Risk and protective factors are relevant at all stages of life and across several domains. Generally, researchers identify several levels, or domains, for intervention: the individual level, family level, peer level, and community level. At different stages in a person’s life, one domain may play a larger role in comparison to another. Cleveland et al. (2008) found that peers and the school environment had a greater influence on older adolescents’ substance abuse than younger adolescents. In contrast, families and the outside community had a greater impact on younger children than peers or schools. Effective prevention programming should target risk and protective factors that are most salient at each life stage and best-suited for the domain in which the intervention will be implemented.

The National Institute on Drug Abuse makes the case that prevention programs should target risk and protective factors that have been shown to have the most impact at each developmental level (2003). Early interventions, even at the preschool level, can play a powerful role in reducing risk throughout the “developmental risk trajectory” (National Institute on Drug Abuse [NIDA], 2003, p. 6). Similarly, the Substance Abuse and Mental Health Services Administration notes that risk factors are “correlated and cumulative”—that is, having a risk factor early in life increases the likelihood of having more risk factors later in life (Substance Abuse and Mental Health Services Administration [SAMHSA], n.d.). Many of the risk and protective factors that are associated with problem substance misuse are also associated with mental health conditions, so efforts to reduce risk factors and increase protective factors associated with substance misuse should also have an impact on future mental health status.

Delaware Overview

Individual risk factors include personality traits such as impulsivity, risk-taking, antisocial behaviors, and emotional problems. Protective factors include traits such as adaptability, empathy, and good social skills, as well as a value on academic achievement, hope for the future, self-efficacy, and a willingness to follow rules, to name a few. Among Delaware High School Youth Risk Behavior Survey (YRBS) respondents, there is an association between school grades and substance use and mental health indicators; students who report getting good grades report lower rates of substance use and poor mental health indicators than students who do not.¹⁷

¹⁷ It is important to note that while there is a statistical association between these factors, this does not necessarily mean that there is a causal relationship between these variables in every instance, and there may be additional

Family protective factors include consistent discipline, parental involvement, family stability, and clear expectations. Child abuse, parental substance abuse, lack of supervision, and poor relationships with parents (which are discussed in Chapter 11) are a few of the risk factors that have been associated with future substance misuse and other negative health outcomes (Substance Abuse and Mental Health Services Administration [SAMHSA], 2019). The Delaware YRBS asks a number of questions about students' relationships with their parents. Data from the 2019 survey illustrate an association between parent engagement and youth substance use as well as youth mental health status. Delaware high school students who report that their parents never or almost never tell them they are proud of them use substances at higher rates and report higher rates of depression, self-harm, and plans and attempts at suicide than youth whose parents tell them they are proud of them sometimes or always. A similar pattern emerges when looking at student reports of parents frequently taking an interest or believing that their parents listen to them. Better mental health status and reduced substance use is also associated with parental monitoring and supervision.

The National Survey on Children's Health (NSCH) includes a number of protective factor indicators, including a series of four questions that comprise a Family Resilience Composite Measure. The questions ask parent respondents to report if the child lives in a home where family members: talk together about what to do; work together to solve problems; know that they have strengths to draw upon; and stay hopeful even in difficult times. Approximately four out of five parent respondents of children living in Delaware agree with all of these statements most or all of the time, commensurate with the rate among the national sample. NSCH also asks questions relating to family connectedness. Delaware findings indicate that nearly 44% of families report eating a meal together most days, and more than one in three report reading aloud to children aged 0-5 every day (NSCH, 2017-2018).

Relationships with peers may also correlate to risk behavior. The 2019 Delaware YRBS asks students to report whether their friends think it is wrong to use marijuana or have one or two drinks of alcohol nearly every day. Teens who report that their friends think it is wrong report using substances at lower rates than students whose friends do not think frequent substance use is wrong.

Schools operate at the intersection of the peer and community level—they are the location where most peer interactions occur but can also provide a powerful protective function if school leaders find ways to enhance school connectedness and promote healthy norms (Centers for Disease Control and Prevention [CDC], 2009). Community-level factors include social disorganization, norms favorable or unfavorable to substance use, and community safety. A report from the CDC (2009) explains how school connectedness—that is, the extent to which youth feel connected to the school community—can reduce the risk of mental health and

unobserved indicators that also influence the outcome. This holds true for all of the associations discussed in this chapter.

substance abuse problems in youth. Schools can promote school connectedness by providing adult support, supporting the formation of positive peer groups, promoting the importance of education, and creating a safe and positive school environment.

The literature on risk and protective factors is extensive, and these are just a few examples at each level of intervention (CDC, 2018; SAMSHA, n.d.; Cleveland et al., 2008). In summary, clear and consistent limits, discipline, rules, and support from caregivers are important factors associated with healthy youth development. Further, the feeling of connectedness through positive family, peer, and social relationships builds resilience in youth. Healthy relationships and social supports promote mental wellness and life skill development.

The following figures highlight a number of protective factors among Delaware youth and several noteworthy associations with risk experiences.

2017-2018 National Survey of Children’s Health Family Resilience Composite Measure (in percentages)

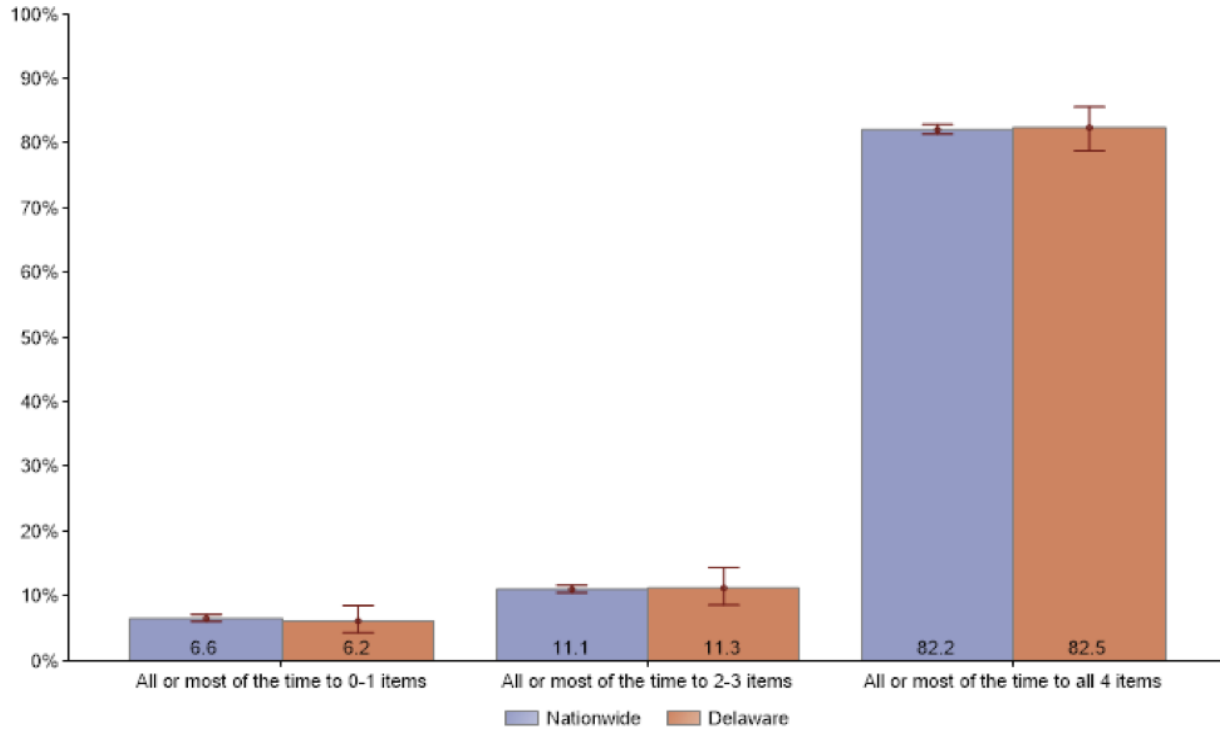


Figure 205: Family resilience composite index, Delaware and National comparison, children ages 0-17

Note:

Indicator 6.12 Family Resilience: “Does this child live in a home where the family demonstrates qualities of resilience during difficult times.” The composite measure includes four items: “Talk together about what to do; Work together to solve the problem; Know we have strengths to draw upon; Stay hopeful even in difficult times.”

Source: National Survey of Children’s Health, Health Resources and Services Administration, Maternal and Child Health Bureau. <https://mchb.hrsa.gov/data/national-surveys>.

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2017-2018 National Survey of Children’s Health Number of Days Family Ate Together During Past Week (in percentages)

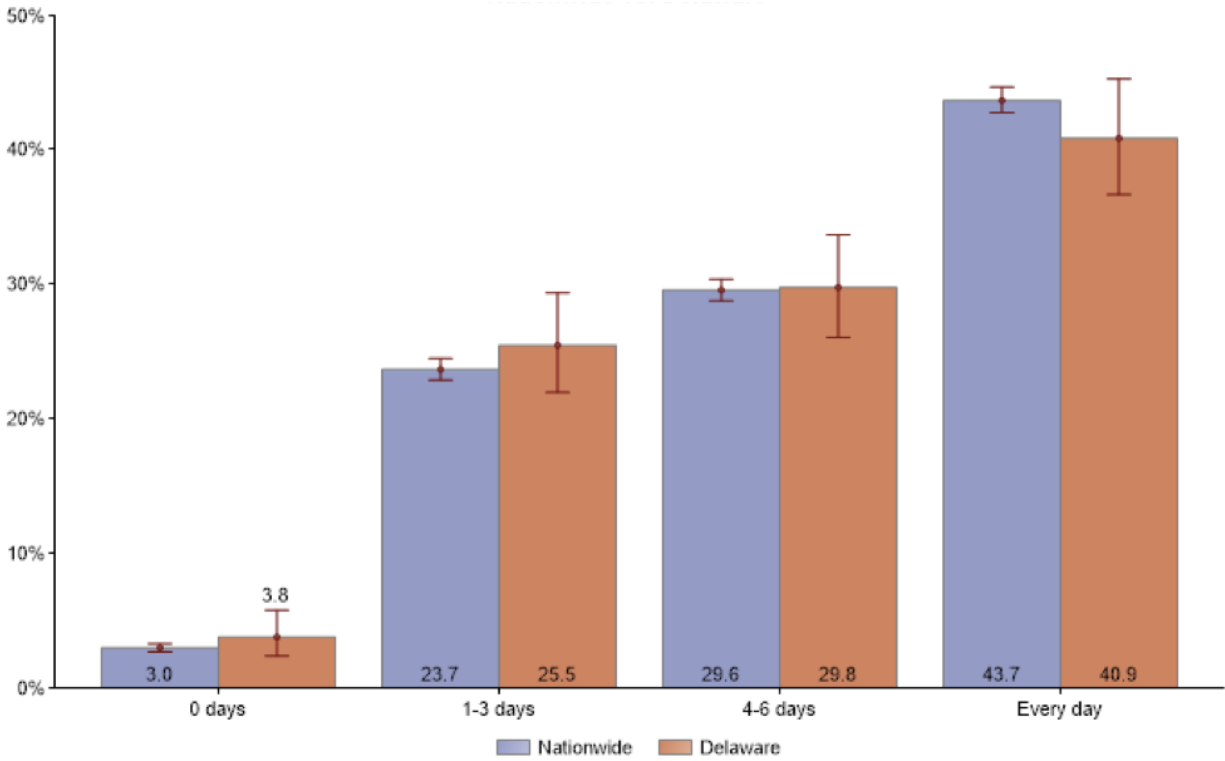


Figure 206: Number of days children and family ate together during the past week, Delaware and National comparison, ages 0-17

Note:

Indicator 6.9: “During the past week, on how many days did all the family members who live in the household eat a meal together?”

Source: National Survey of Children’s Health, Health Resources and Services Administration, Maternal and Child Health Bureau. <https://mchb.hrsa.gov/data/national-surveys>.

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2017-2018 National Survey of Children's Health Number of Days Children are Read Aloud To During Past Week (in percentages)

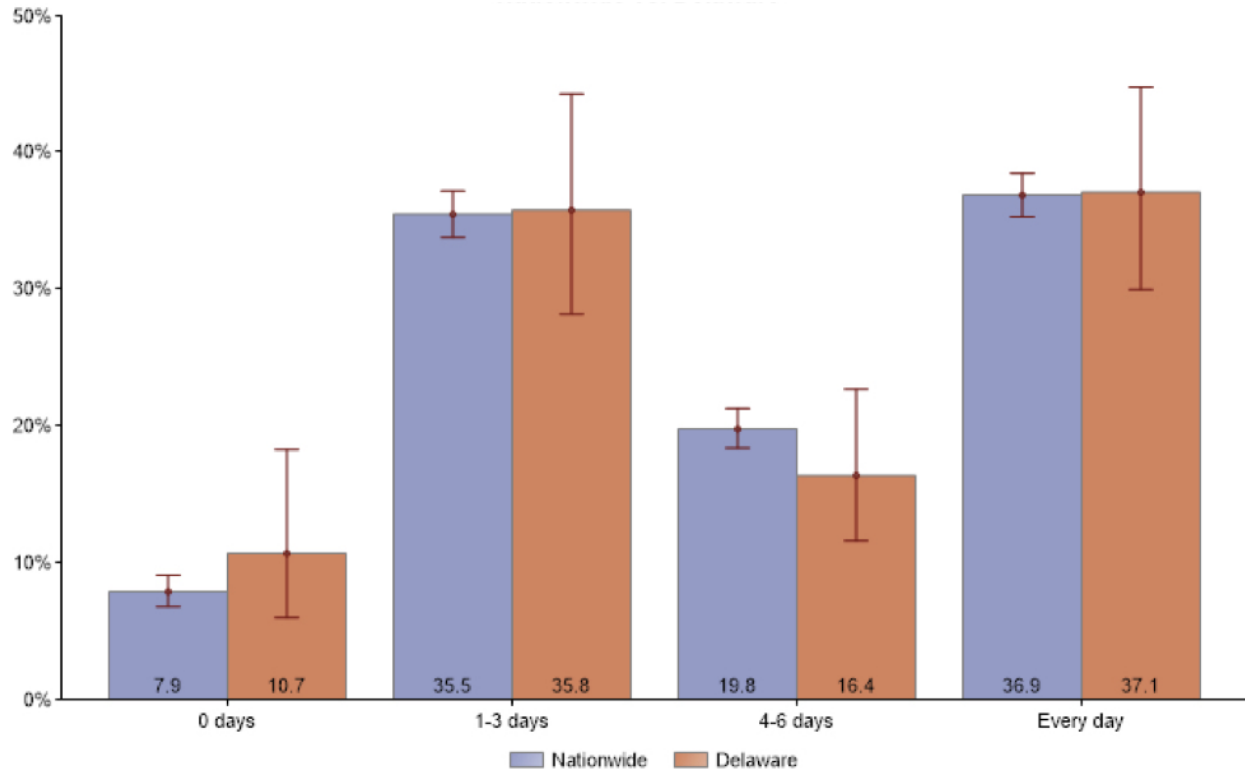


Figure 207: Number of days children were read to by household member, Delaware and National comparison, ages 0-5

Note:

Indicator 6.7: "During the past week, how many days did you or other family members read to this child, age 0-5 years."

Source: National Survey of Children's Health, Health Resources and Services Administration, Maternal and Child Health Bureau. <https://mchb.hrsa.gov/data/national-surveys>.

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2019 Delaware School Survey Overview of Protective Factors 5th, 8th, and 11th Graders	
Parental Support	> 84% of 5 th , 8 th , and 11 th grade students report support and encouragement from parents
	69% 5 th graders report they would talk to their parents about a personal problem
Support from Other Adults	> 44% of 5 th , 8 th , and 11 th grade students report support and encouragement from teachers
	Approximately 31% of 8 th and 11 th grade students report having 2 or more supportive adults
Peer Support	69% of 8 th grade students report support and encouragement from friends
	70% of 11 th grade students report support and encouragement from friends
Connectedness	84% of 5 th grade students report participating in an organized activity outside of school hours
Perceptions of School Safety	94% of 5 th grade students report feeling safe at school
	74% of 8 th grade students report feeling safe at school
	78% of 11 th grade students report feeling safe at school

Figure 208: Overview of protective factors, 5th, 8th, and 11th Graders

Sources: [Positive Childhood Experiences, Prevention, and Protective Factors, Center for Drug and Health Studies, University of Delaware, 2020.](#)
[Delaware School Survey: Alcohol, Tobacco & Other Drug Use 2019 Report, Center for Drug and Health Studies, University of Delaware, 2020.](#)

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2019 Delaware Youth Risk Behavior Survey Sources of Support and Encouragement Among High School Students (in percentages)

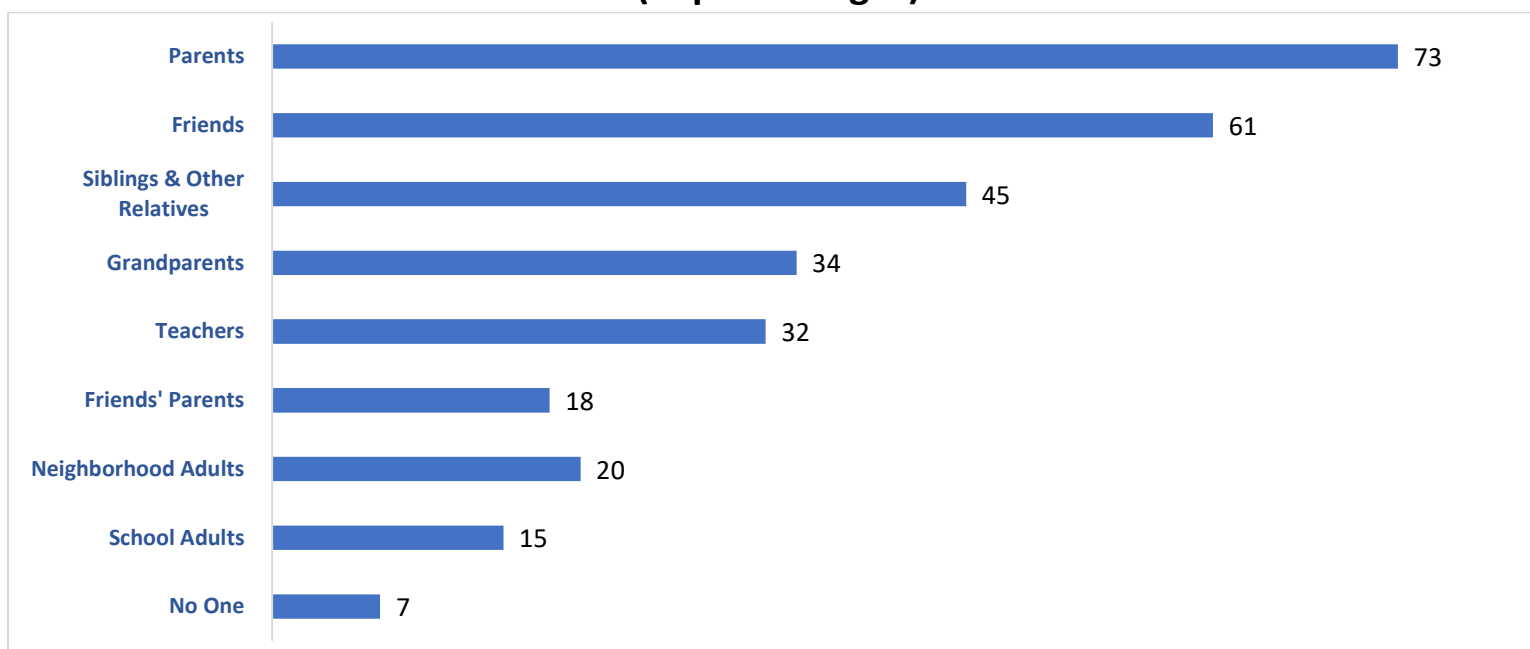


Figure 209: Sources of support and encouragement, HS

Note:

Students are asked to mark all responses that apply to the question: "Which of the following people would you say give you a lot of support and encouragement?"

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey
Who High School Students Would Talk to
About a Serious Personal Problem
(in percentages)

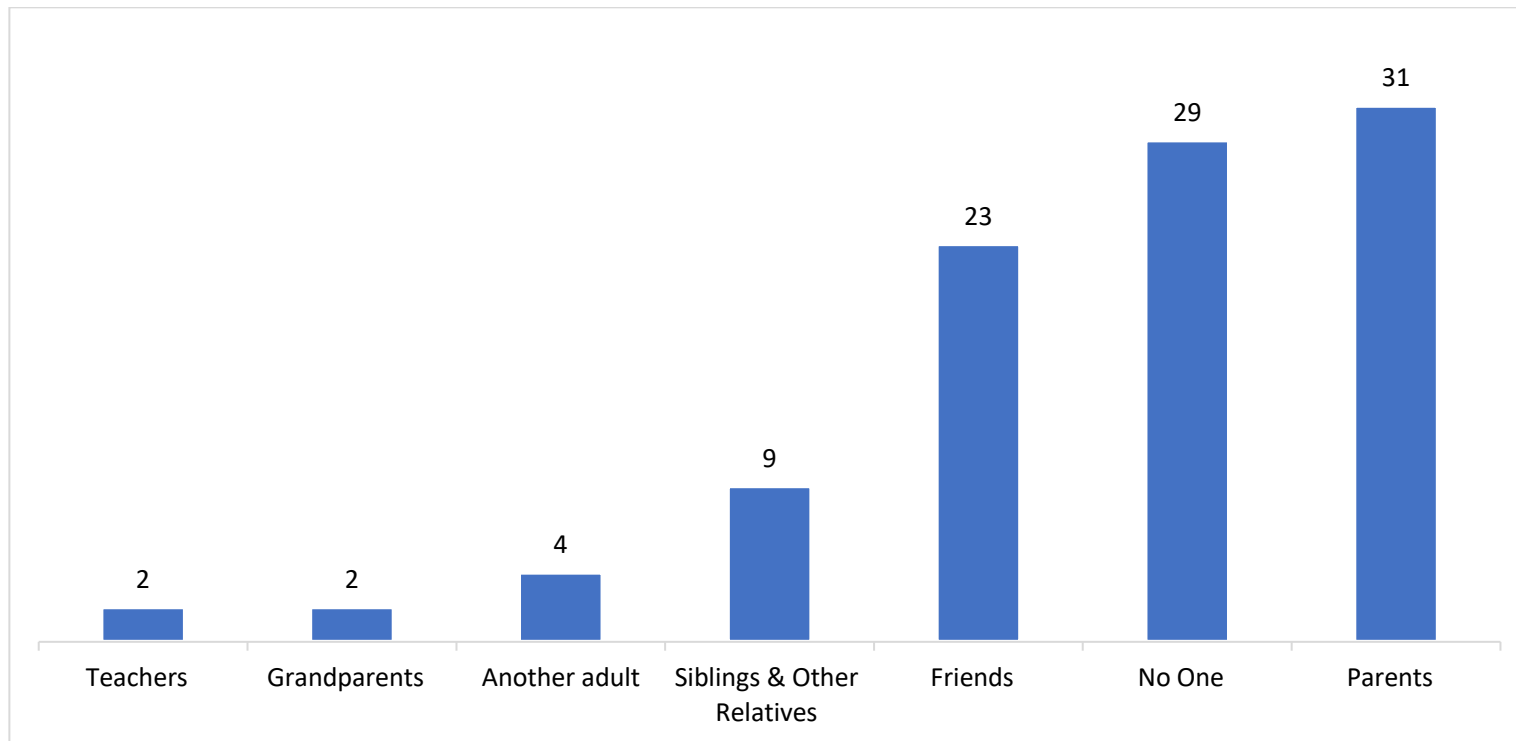


Figure 210: Who students would talk to about a serious personal problem, HS

Note: Students are asked to select one response to the question: If you had a personal problem with drinking, drug use, violence you have seen or that has affected you, or sexual behavior, who would you most likely talk to?

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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**2019 Delaware Youth Risk Behavior Survey
Past Month Substance Use^a and Academic Achievement
for High School Students
(in percentages)**

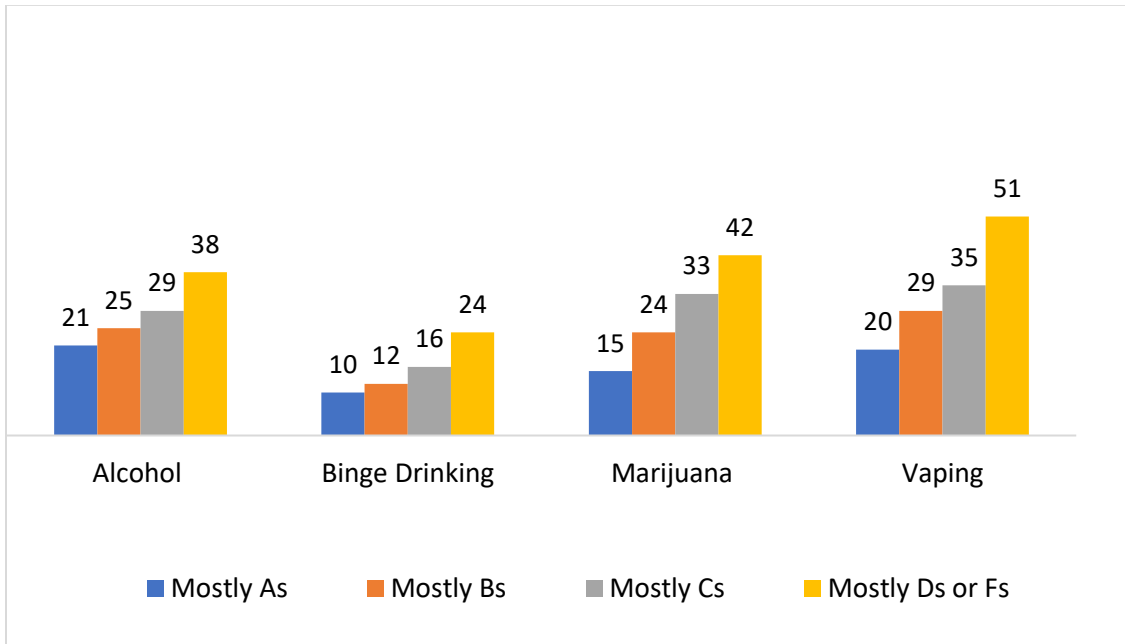


Figure 211: Past month substance use and grades, HS

Notes:

Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

^aBinge drinking is defined in the YRBS as 4 or more drinks at a time for females or 5 or more drinks at a time for males in the past month.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Rules and Consequences at Home^a and Past Month Substance Use^b Among Delaware High School (in percentages)

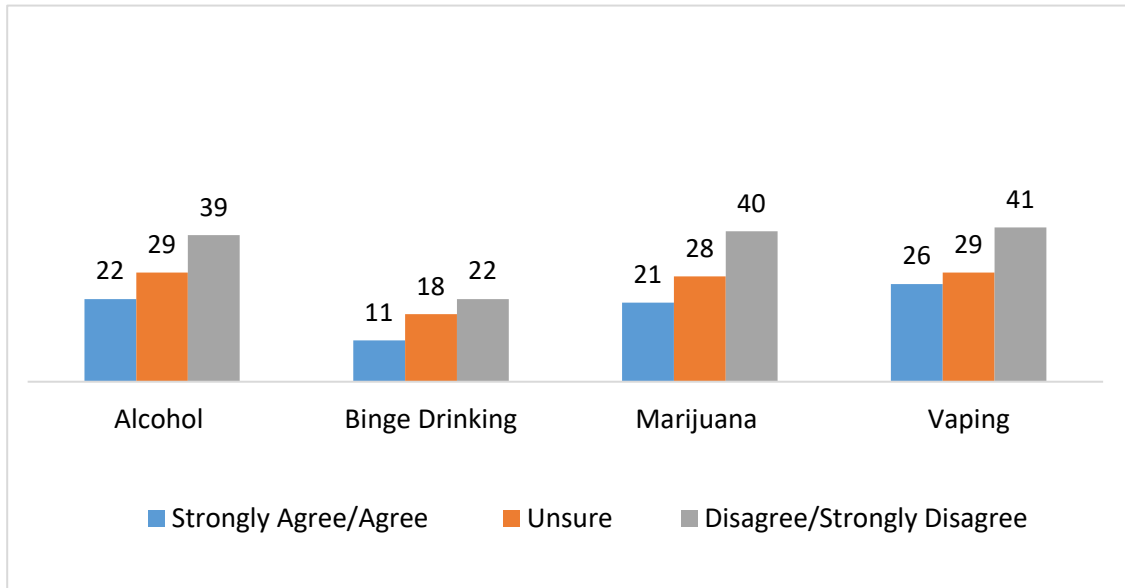


Figure 212: Past month substance use and rules/consequences at home, HS

Notes:

Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

^aStudents were asked: “Do you agree or disagree that your parents or other adults in your family have clear rules and consequences for your behavior?”

^bBinge drinking is defined in the YRBS as 4 or more drinks at a time for females or 5 or more drinks at a time for males in the past month.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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**2019 Delaware Youth Risk Behavior Survey
Peer Perceptions of Substance Use^a and
Respective Past Month Substance Use^b
Among High School Students
(in percentages)**

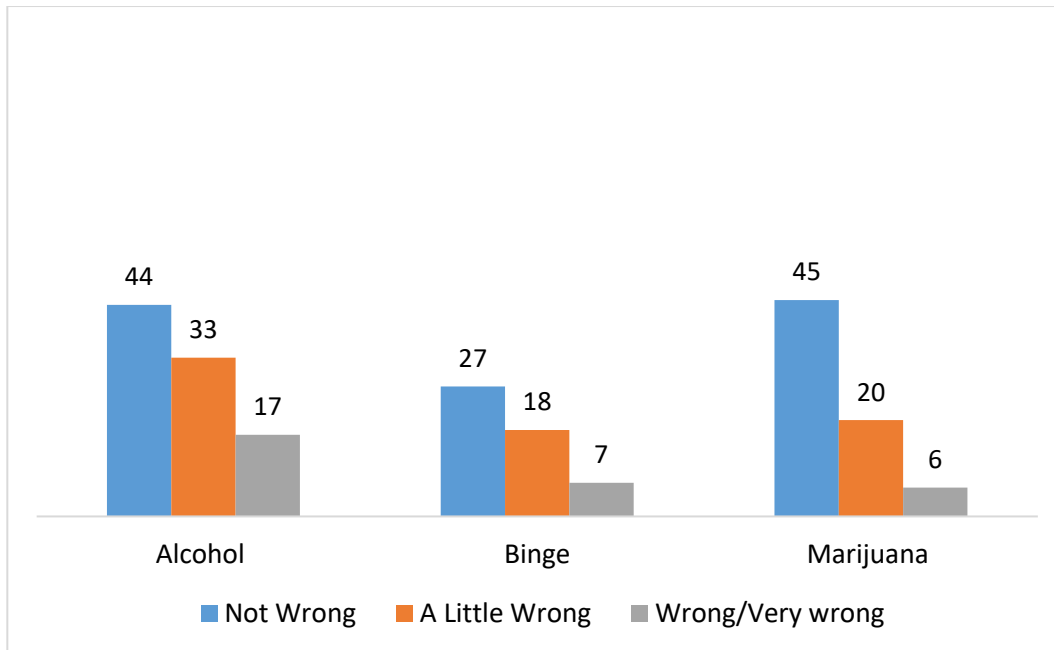


Figure 213: Peer attitudes and past month substance use, HS

Notes:

Unless otherwise noted, all estimates are statistically significant at the p<.05 level.

^aStudents are asked the following questions: “How wrong do your friends feel it would be for you to have one or two drinks of an alcohol beverage every day/smoke marijuana?” In this figure, past month alcohol use and binge drinking is analyzed by peer perceptions of having one or two drinks of alcohol, and past month marijuana use is analyzed by peer perceptions of smoking marijuana.

^bBinge drinking is defined in the YRBS as 4 or more drinks at a time for females or 5 or more drinks at a time for males in the past month.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey
How Often Parents are Proud and Past Month Substance Use^b
Among High School Students
(in percentages)

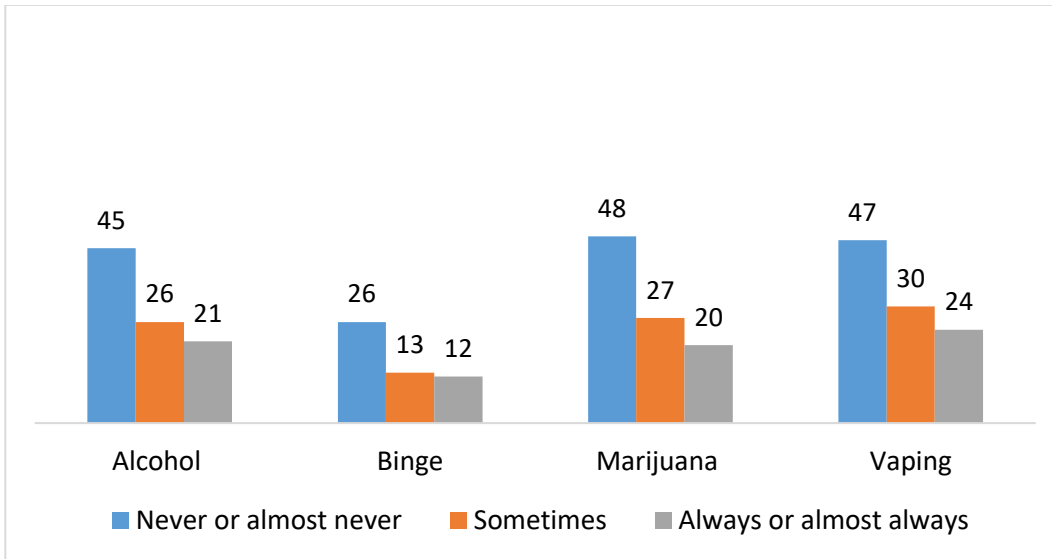


Figure 214: Parents are proud and past month substance use, HS

Notes:

Unless otherwise noted, all estimates are statistically significant at the p<.05 level.

^bBinge drinking is defined in the YRBS as 4 or more drinks at a time for females or 5 or more drinks at a time for males in the past month

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey

How Often Parents Take an Interest and Past Month Substance Use^b Among High School Students (in percentages)

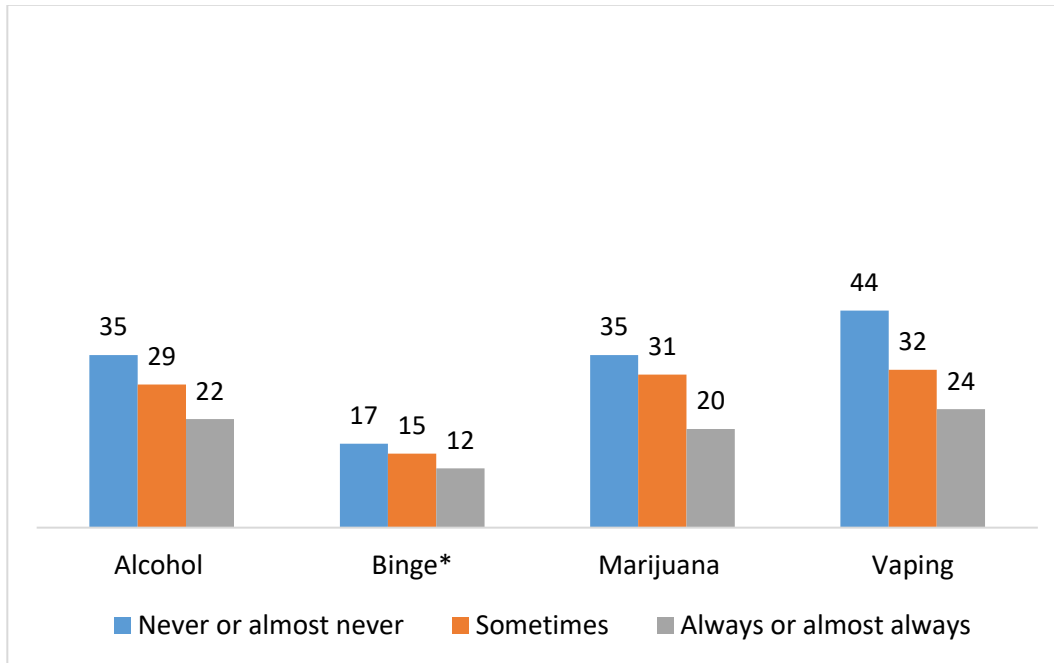


Figure 215: Parents take an interest and past month substance use, HS

Notes:

*Estimate was not statistically significant at the $p < .05$ level.

^bBinge drinking is defined in the YRBS as 4 or more drinks at a time for females or 5 or more drinks at a time for males in the past month

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey
How Often Parents Listen and Past Month Substance Use^b
Among High School Students
(in percentages)

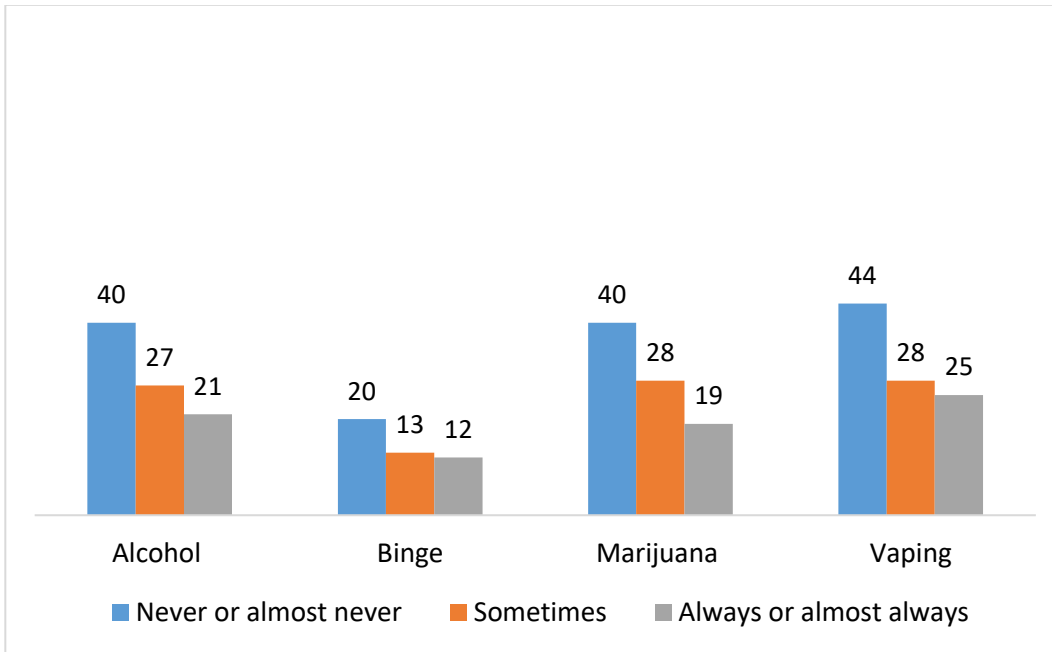


Figure 216: Parents listen and past month substance use, HS

Notes:

Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

^bBinge drinking is defined in the YRBS as 4 or more drinks at a time for females or 5 or more drinks at a time for males in the past month

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey Past Year Mental Health Indicators and Grades Among High School Students (in percentages)

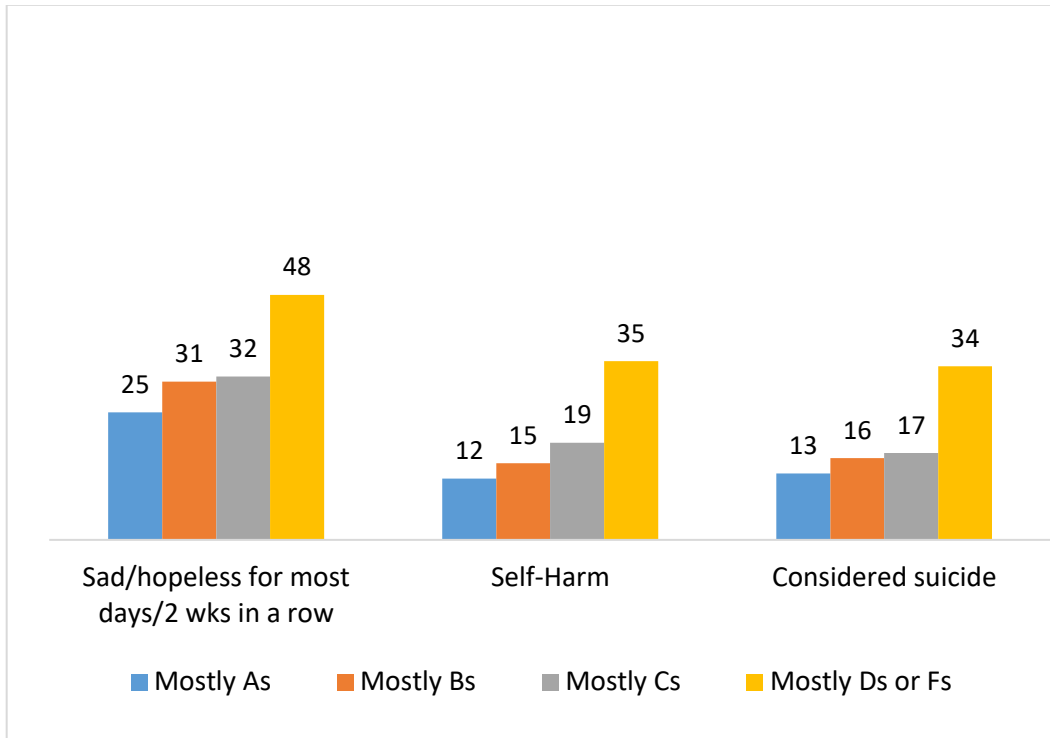


Figure 217: Past year mental health indicators and average grades, HS

Note:

Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey
Rules and Consequences at Home and Past Year Mental Health
Among High School Students
(in percentages)

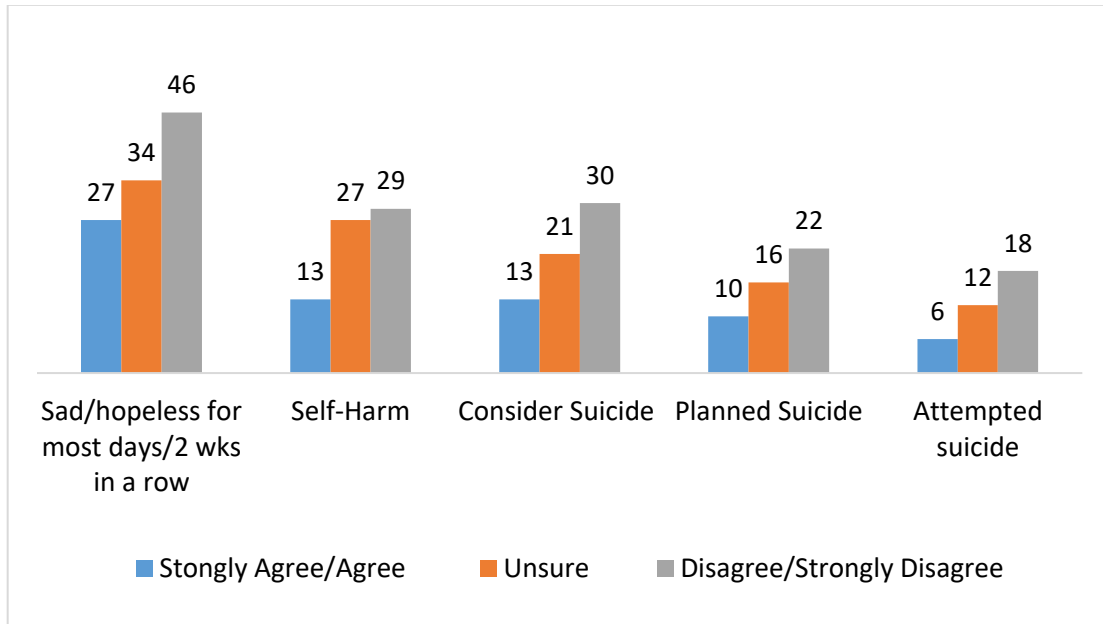


Figure 218: Past year mental health indicators and rules/consequences at home, HS

Note:

Unless otherwise noted, all estimates are statistically significant at the p<.05 level.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey
How Often Parents Proud and Past Year Mental Health
Among High School Students
(in percentages)

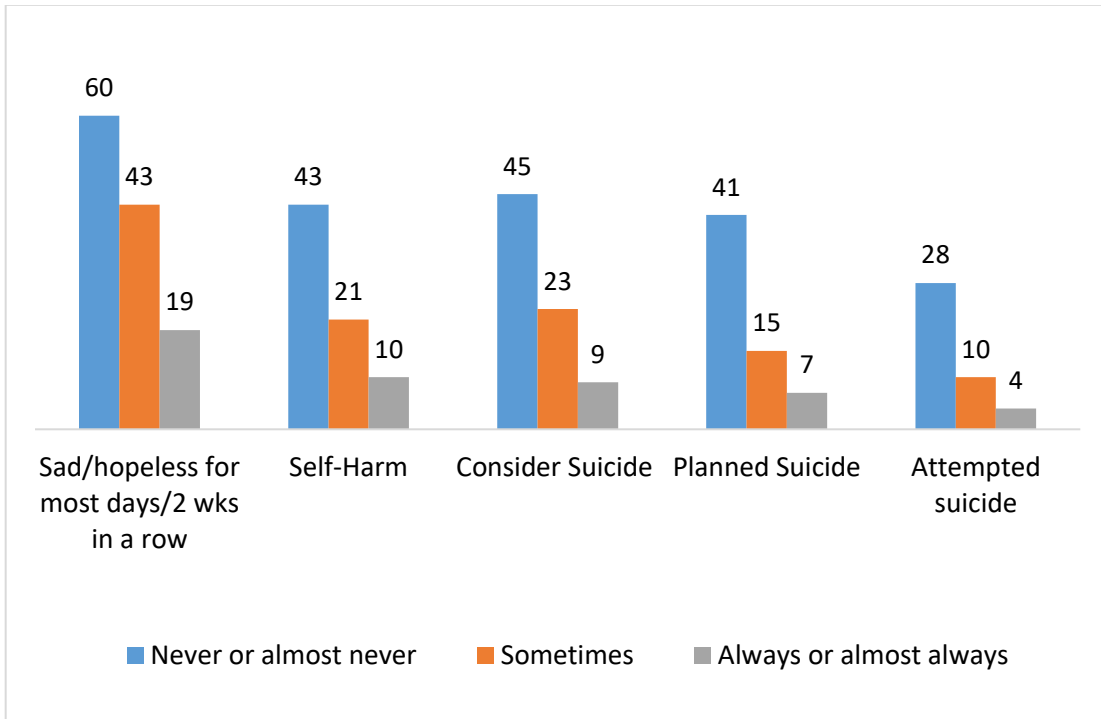


Figure 219: Parents proud and past year mental health indicators, HS

Note:

Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey

How Often Parents Take an Interest and Past Year Mental Health Among High School Students (in percentages)

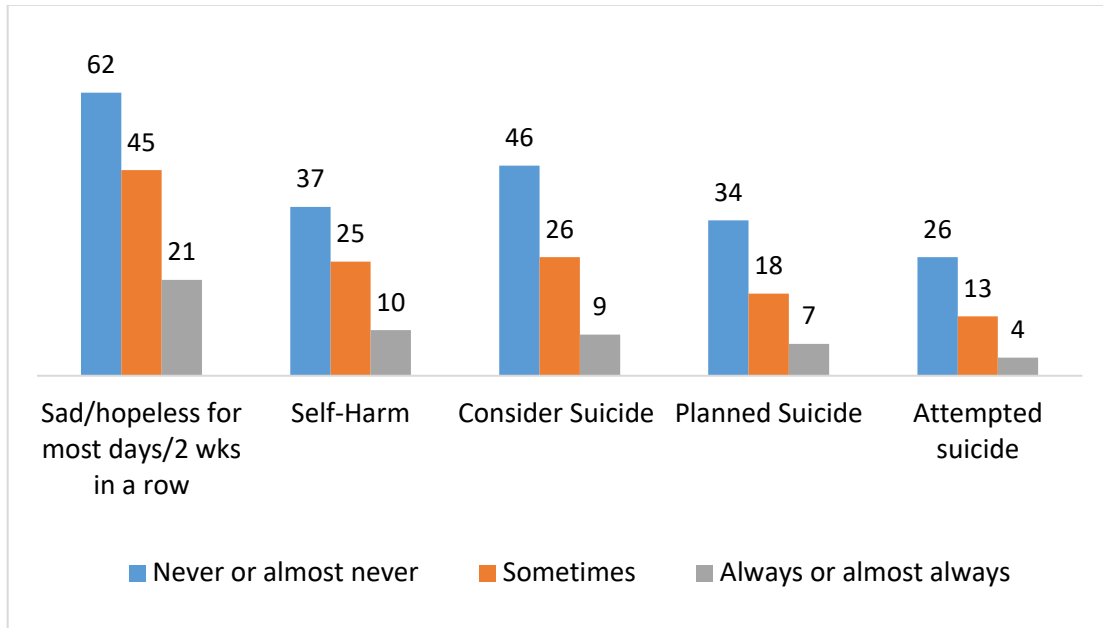


Figure 220: Parents take an interest and past year mental health indicators, HS

Note:

Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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2019 Delaware Youth Risk Behavior Survey
How Often Parents Listen and Past Year Mental Health
Among High School Students
(in percentages)

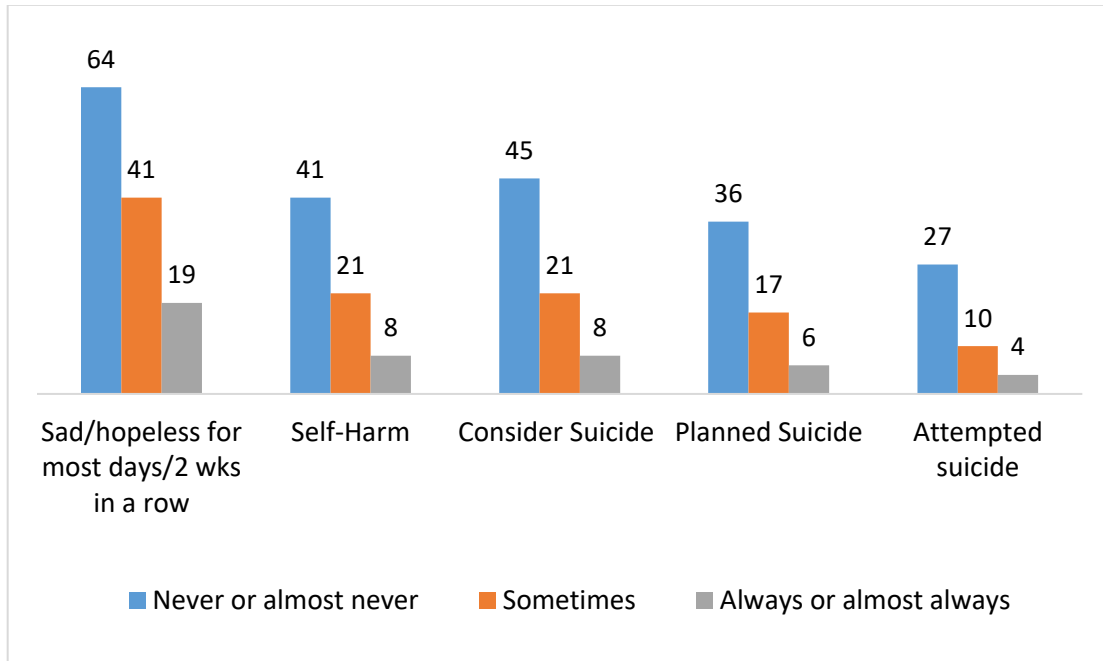


Figure 221: Parents listen and past year mental health indicators, HS

Note:

Unless otherwise noted, all estimates are statistically significant at the $p < .05$ level.

Source: [Center for Drug & Health Studies. \(2019\). Youth Risk Behavior Survey: High School \[Biennial Survey\]. University of Delaware.](#)

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Data Sources

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

Treatment Admissions Data	US Substance Abuse and Mental Health Services Administration, collected by Delaware Division of Substance Abuse and Mental Health	2019	2002 - 2019
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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