2020 DELAWARE STATE
EPIDEMIOLOGICAL PROFILE
SUBSTANCE USE AND RELATED ISSUES

Gambling

prepared for

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Delaware Division of Substance Abuse and Mental Health
&
The Delaware State Epidemiological Outcomes Workgroup

with funding from the
Strategic Prevention Framework - Partnerships for Success Program
The Role of the
Delaware State Epidemiological Outcomes Workgroup
and the Purpose of the Epidemiological Profile

All states, including Delaware, have received support from the Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Substance Abuse Prevention (CSAP) to establish a Statewide Epidemiological Outcomes Workgroup (SEOW). The Division of Substance Abuse and Mental Health (DSAMH) in the Department of Health and Social Services supported the establishment of the Delaware SEOW through SAMHSA Strategic Prevention Framework grants awarded previously. The SEOW is a group of people and organizations that have and use analytical data concerning substance use and related behaviors and consequences; this information can be used to establish and monitor indicators related to substance use prevention. Formerly known as the Delaware Drug and Alcohol Tracking Alliance (DDATA), Delaware’s SEOW mission is to bring data on substance use and associated issues to the forefront of the prevention process by pursuing the following goals:

- To build monitoring and surveillance systems to identify, analyze, and profile data from state and local sources
- To provide current benchmarks, trends, and patterns of substance abuse consumption and consequences
- To create data-guided products that inform prevention planning and policies
- To train agencies and communities in understanding, using, and presenting data effectively

The annual Delaware State Epidemiological Profile was developed by the SEOW to disseminate data for strategic planning, decision-making, and evaluation. Using indicators that are available on an ongoing basis, the report describes patterns of consumption, context, consequences, and trends of substance use, as well as other risk and protective factors, especially among young people in Delaware. The report also highlights crosscutting issues that warrant attention as well as populations that may experience disproportionate risk for these concerns.

This chapter provides an overview of the issue of gambling and its association with substance use among Delaware youth. To review the complete Delaware Epidemiological Profile, other chapters, infographics, or SEOW data products, please visit the UD Center for Drug and Health Studies Delaware Epidemiological Reports page.
SEOW Collaborators

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

atTAcK Addiction
Bellevue Community Center
Christiana Care Health System
Colonial School District
Delaware Academy of Medicine/Delaware Public Health Association
Delaware Afterschool Network
Delaware Center for Justice
Delaware Coalition Against Domestic Violence
Delaware Council on Gambling Problems
Delaware Courts - Office of the Child Advocate
Delaware Criminal Justice Council
Delaware Criminal Justice Information System
Delaware Department of Education
Delaware Department of Services for Children, Youth and their Families
  Division of Prevention and Behavioral Health Services
Delaware Department of Health and Social Services
  Division of Medicaid and Medical Assistance
  Division of Public Health
  Division of Services for Aging and Adults with Physical Disabilities
  Division of Substance Abuse and Mental Health
Delaware Department of Safety and Homeland Security
  Delaware State Police
  Division of Alcohol and Tobacco Enforcement
  Division of Forensic Science
Delaware Department of State
  Delaware Office of Controlled Substances
  Division of Professional Regulation, Prescription Monitoring Program
Delaware Domestic Violence Coordinating Council
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
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   College of Arts and Sciences
   Student Health & Wellness Promotion
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If your organization is interested in becoming an SEOW Collaborator, please contact Meisje Scales at: mjscales@udel.edu
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Notes on Data Reporting and Interpretation

In order to protect the anonymity of respondents and to ensure that the data reported meet certain statistical standards, the Center for Drug and Health Studies (CDHS) at the University of Delaware recently updated its guidelines for reporting and interpreting data from surveys that it administers to students across the state of Delaware. As a result, in the 2020 Delaware State Epidemiological Profile, data in some tables and figures have been aggregated or otherwise reported differently than in years prior. The following notes summarize the guidelines for interpreting data presented in this report:

- **Reporting small numbers**: For any estimate where the raw number of responses is less than 30, no statistical estimates are reported. Statistics computed from such a small proportion of the total number of students may be unreliable, inflating the significance of existing relationships in the data, and among some special populations, may put individuals at risk of being identified. In some data products such as our heat maps, multiple years of data have been combined in order to increase the sample sizes to a reportable figure.

- **Rounding**: All figures from Delaware school survey data (DSS, YRBS, YTS) are rounded to the nearest whole percent. As such, in some cases the cells in a table may add up to slightly more or less than 100%.

- **Missing Observations**: In our analysis, any missing observations (responses) are not calculated into the total percentages. Because different questions have varying numbers of missing responses, the total sample size and percent missing may fluctuate slightly from question to question. This is due to a few factors:
  - Students may not answer all questions on a survey, particularly those towards the end if they run out of time or they tire of answering questions.
  - Students may also skip or decide not to respond to certain questions for various reasons (e.g., if they fear their responses will not be kept confidential; if they consider the question too personal or sensitive; if they do not understand the question; etc.)

- **Discrepancies in Reporting**: With respect to the Delaware YRBS survey, there may be slight discrepancies in how CDHS reports some data points compared to how the Centers for Disease Control and Prevention (CDC) and their national technical advisors (Westat, Inc.) report the data. This is largely due to differing practices when conducting analysis with missing observations in the data and does not substantially impact the overall prevalence estimates, trends, and relationships among these data points.

- **Statistical Significance**: Unless otherwise indicated, all reported correlations between variables are statistically significant at the p<.05 level. Null hypothesis testing, used to estimate statistical significance, provides an estimate of the likelihood that the relationship between two indicators is not due to random chance. If the p-value for a given crosstab is less than .05, this suggests that in 95% of cases, the correlation between the relevant variables is because there is a relationship between them.
• **Weighted Data:** Weighting data is a correction technique that compensates for nonresponses, helps correct for unequal probabilities of being selected within the sample, and helps ensure that the sample drawn is representative of the Delaware student population. If data is weighted there will be a notation indicating the data is weighted for the specific fact, figure, or table. Prevalence data from the Youth Risk Behavior Survey and Youth Tobacco Survey are usually weighted, however, data is not weighted when exploring small subpopulations to ensure an accurate analysis that is not influenced due to the small number of individuals in those subpopulations.

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

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

<table>
<thead>
<tr>
<th>Survey Administration</th>
<th># of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DSS</strong></td>
<td></td>
</tr>
<tr>
<td>5th Grade</td>
<td>2,992</td>
</tr>
<tr>
<td>8th Grade</td>
<td>2,126</td>
</tr>
<tr>
<td>11th Grade</td>
<td>2,299</td>
</tr>
<tr>
<td><strong>Delaware YRBS</strong></td>
<td></td>
</tr>
<tr>
<td>Middle School</td>
<td>1,162</td>
</tr>
<tr>
<td>High School</td>
<td>2,186</td>
</tr>
</tbody>
</table>
1. 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)

<table>
<thead>
<tr>
<th>Category</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic or Latino/a/x</td>
<td>54</td>
<td>48</td>
<td>51</td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>57</td>
<td>46</td>
<td>54</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>46</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>8th grade</td>
<td>54</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>7th grade</td>
<td>54</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>6th grade</td>
<td>54</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>Female</td>
<td>56</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Male</td>
<td>56</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td>56</td>
<td>56</td>
</tr>
</tbody>
</table>

Figure 1: 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.

Figure 2: 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.

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2019 Delaware Youth Risk Behavior Survey
High School Students who report Gambling in the Past Year
(in percentages)

Figure 3: 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.

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

![Graph showing past year gambling and substance use among high school students](image)

**Figure 4:** 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.


[Back to table of figures]
2. References

Gambling


## Data Sources

<table>
<thead>
<tr>
<th>Data Instrument</th>
<th>Administered/Compiled by</th>
<th>Most Recent Data</th>
<th>Trend Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delaware Annual Traffic Statistical Report</td>
<td>Delaware State Police/Delaware Statistical and Analysis Center</td>
<td>2019</td>
<td>-</td>
</tr>
<tr>
<td>Delaware Behavioral Risk Factor Surveillance System (BRFSS)</td>
<td>DE Division of Public Health (sponsored by the CDC)</td>
<td>2018</td>
<td>-</td>
</tr>
<tr>
<td>Delaware Prescription Monitoring Program (PMP)</td>
<td>DE Department of State, Division of Professional Regulation</td>
<td>2018</td>
<td>2012-2018</td>
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<tr>
<td>Delaware School Survey (DSS) – 5th, 8th, and 11th grades</td>
<td>Center for Drug and Health Studies, UD</td>
<td>2019</td>
<td>1999-2019</td>
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<td>Delaware Youth Risk Behavior Survey (YRBS) – High School</td>
<td>Center for Drug and Health Studies, UD (sponsored by DE Division of Public Health and the CDC)</td>
<td>2019</td>
<td>1999-2019</td>
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<tr>
<td>Delaware Youth Risk Behavior Survey (YRBS) – Middle School</td>
<td>Center for Drug and Health Studies, UD (sponsored by Nemours)</td>
<td>2019</td>
<td>1999-2019</td>
</tr>
<tr>
<td>Delaware Youth Tobacco Survey – 6th – 12th grades</td>
<td>Center for Drug and Health Studies, UD (sponsored by DE Division of Public Health)</td>
<td>2018</td>
<td>-</td>
</tr>
<tr>
<td>Monitoring the Future – 8th, 10th, and 12th grades</td>
<td>University of Michigan (sponsored by the National Institute on Drug Abuse)</td>
<td>2019</td>
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<tr>
<td>Performance Measures, Delaware</td>
<td>National Highway Safety Administration</td>
<td>2018</td>
<td>2014-2018</td>
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<tr>
<td>National Survey on Children’s Health (NSCH)</td>
<td>US Health Resources &amp; Services Administration</td>
<td>2018</td>
<td>2016-2018</td>
</tr>
<tr>
<td>National Survey on Drug Use and Health (NSDUH)</td>
<td>US Substance Abuse and Mental Health Services Administration</td>
<td>2016-2018</td>
<td>2002-2018</td>
</tr>
</tbody>
</table>
In addition to the data sources for the figures and tables in the 2020 report, the following data sources are also cited throughout the narrative:

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