

*2020 NEBRASKA
STATE
EPIDEMIOLOGICAL
PROFILE*

2020 Nebraska State Epidemiological Profile

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EXECUTIVE SUMMARY

Substance misuse, defined as the use of illicit drugs or the inappropriate use of legal substances (alcohol and tobacco), is a serious public health concern. Alcohol is the most commonly consumed substance in Nebraska, with 21.0% of high school students and nearly 60% of young adults and adults reporting current alcohol use in 2019. Nebraska has a high prevalence of binge drinking with a rising trend among high school students and adults. In 2019, 21.5% of young adults and 22.7% of adults in Nebraska reported using tobacco products in the past month. The decline of cigarette smoking in recent years has given rise to the use of other tobacco products such as electronic vapor products; 17.1% of Nebraska high school students reported current use of an electronic vapor product. Possession of more than 1 ounce of marijuana, as well subsequent offenses for possession of less than 1 ounce, is criminalized in Nebraska; however, 11.6% of high school students, 21.2% of young adults, and 6.4% of adults reported current use of marijuana in 2019. The percentage of young adults and adults reporting current marijuana use has steadily increased in recent years. By contrast, use of illicit drugs such as opioids, stimulants, and prescription pain medicines have all declined over a similar period of time.

Individuals with substance use disorders are at increased risk of mental illness. In 2019, 18.5% of adults in Nebraska experienced a mental illness and 16.2% experienced some form of depression. The prevalence of Nebraska high school students reporting considering suicide and making suicide plans in the past year have each increased consecutively since 2013.

Misuse of substances is often associated with negative health, legal, and social consequences. Although the prevalence of alcohol use disorders have gradually declined in Nebraska, alcohol attributable deaths increased by 64% in 2020. However, the annual number of alcohol-related crashes and arrests indicate downward trends in recent years. One CDC study estimates that the annual costs of alcohol-related consequences for Nebraska are approximately \$1.2 billion. Tobacco smoking was the cause for approximately 90% of all lung cancer deaths and 80% of all deaths from chronic obstructive pulmonary disease. In 2020, the annual healthcare costs directly caused by cigarette smoking were \$795 million. Among Nebraska young adults, 5.6% reported driving while under the influence of marijuana. The prevalence of illicit drug use disorders among adults and young adults has remained stable since 2016. According to the Nebraska Office of Probation Administration, the number of adult drug related offenses increased each year from 2016 to 2019; however, annual offenses declined by 36% in 2020.

Individuals who perceive greater risk associated with substance misuse may be less likely to misuse particular substances. Uptake and continued misuse may also be shaped by the social norms around drugs and alcohol in a person's community. In 2020, most Nebraskans perceived moderate to great risk associated with binge drinking and nearly half the population agreed that underage drinking was wrong. While nearly two-thirds of non-tobacco users believed tobacco use is a problem in the community, a significantly smaller percentage of tobacco users, approximately one-third, held the same belief. Compared to other illicit drugs, including cocaine,

heroin, and methamphetamine, the perception of risk from consuming marijuana is much lower among Nebraskans.

INTRODUCTION

The Nebraska State Epidemiological Outcomes Workgroup (SEOW) was established in 2007, formally titled the Nebraska Substance Abuse Epidemiology Workgroup (NSAEW), in preparation for work that was required through the state's Strategic Prevention Framework – State Incentive Grant (SPF-SIG). In 2006, the SPF-SIG grant was awarded to the Department of Health and Human Services (DHHS) Division of Behavioral Health (DBH) through the Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Substance Abuse Prevention (CSAP). The SEOW has facilitated the continuation of the Nebraska Epidemiological Profile through SAMHSA discretionary funds awarded through the Strategic Prevention Framework-Partnerships for Success (SPF-PFS) grants in both 2013 and 2018.

As a requirement of the SPF-PFS grant, the SEOW shall facilitate data-based decision making regarding substance use prevention programming through collection, analysis, and reporting of available data. The 2020 Nebraska Epidemiological Profile represents the fifth official report completed by the SEOW. The report provides a descriptive epidemiological overview of substance use and misuse in Nebraska as well as associated consequences and perceptions. The report also provides an overview of mental health conditions. In order to make the report useful for state and local policymakers, prevention professionals, and treatment providers, data are presented for the state of Nebraska and its 93 counties as available.

The 2020 Nebraska Epidemiological Profile consists of summarized findings on alcohol, tobacco, marijuana and illicit drugs, and mental health conditions. The data comes from a range of sources including state, regional, and national surveys. As with previous reports, the primary goal of this document is to serve as a resource for local communities, stakeholders, and behavioral and public health professionals that are involved in substance use prevention and mental health promotion. Having data in one cohesive document can lend itself useful in grant writing, strategic planning, and evaluation activities. One addition to the 2020 Epidemiological Profile is the creation of data briefs for each section. Due to the large amount of data included in the report, profile users may find the data briefs useful as a quick overview (<https://dhhs.ne.gov/Pages/Statewide-Epidemiological-Outcomes-Work-Group.aspx>).

We appreciate your interest in the field of substance use prevention and mental health promotion. We hope that you find value and use of this report and, as always, welcome your feedback and input on this report and considerations for future projects for the SEOW.

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METHODOLOGY

The 2020 Nebraska Epidemiological Profile is divided into four sections: *Alcohol, Tobacco, Marijuana and Illicit Drugs*, and *Mental Health Conditions*. Data is presented on the prevalence of mental health conditions and substance use behaviors, consequences of substance misuse, and perceptions of substance use. Descriptions of all datasets used in this report are presented in *Table 1* and *Appendix 1* indicates the source, date, and geographical coverage of each.

Statistical analyses on publicly available state and national data were performed using Statistical Package for the Social Sciences (SPSS) version 27 and SAS version 9.4. When available, analyses were also performed using online platforms for multiple data sources. Also, aggregated data were provided upon request by agencies that do not typically release data as such.

Several conventions were used to present and analyze the data across multiple sources. Substance use and mental health indicators were presented for three age groups: adolescents (12 to 17 years), young adults (18 to 25 years), and adults (26 years and above). Prevalence estimates and 95% confidence intervals (CI) were reported for all comparisons. Differences across comparison groups were reported as significant when CIs were not overlapping. Statistical comparisons across sex, race/ethnicity, education level, household income, and urbanicity were estimated based on the availability of data. Depending on the particular data source, prevalence estimates were compared between Nebraska, the Midwest region (Iowa, Kansas, Missouri, and Nebraska), and the U.S. for indicators of drug-consumption and drug-use consequences.

The data presented in this report, as listed in Appendix 1, are sourced from either publically available datasets or Nebraska DHHS-wide data systems. Given the nature of the available data, there are some limitations to be considered:

- i. Comparisons across data sources may be inconsistent because of the nature of the survey questions asked
- ii. Classifications of demographic characteristics may be inconsistent across data sources (e.g., age ranges, racial categories, grade levels)
- iii. Timeframes may be inconsistent for comparisons across substances and data sources
- iv. National surveys often estimate state-level prevalence rates using model-based assumptions
- v. Data may not always be representative of the actual population of the state or the nation depending on the reporting requirements

Table 1. Description of data sources for 2020 Nebraska Epidemiological Profile

| Data Set | Description |
|--|---|
| Behavioral Risk Factor Surveillance System (BRFSS) | <p>A national system of telephone surveys that collects state data about U.S. residents' health-related risk behaviors, chronic health conditions, injuries and death.</p> <p>Age range: 18 years and above</p> <p>Trend: Annual</p> |
| CDC Wonder: Multiple Cause of Death | <p>The Multiple Cause of Death data available on CDC WONDER are county-level national mortality and population data. Data are based on death certificates for U.S. residents. Each death certificate contains a single underlying cause of death, up to twenty additional multiple causes, and demographic data.</p> <p>Age range: All ages</p> <p>Trend: Annual</p> |
| National Survey on Drug Use and Health (NSDUH) | <p>NSDUH provides national, Midwest, and state-level estimates on the use of alcohol, tobacco, and illicit drugs (including nonmedical prescription drug use), as well as mental health indicators.</p> <p>Age range: 12 years and above</p> <p>Trend: Annual</p> |
| Nebraska Adult Tobacco Survey (ATS) | <p>A surveillance tool for the Tobacco Free Nebraska Program to collect state data on tobacco use, cessation, exposure to secondhand smoke, smoke-free policies, attitudes and beliefs about tobacco use, tobacco control and prevention, knowledge and awareness about tobacco and health, tobacco control and prevention media efforts, and youth access to tobacco products.</p> <p>Age range: 18 years and above</p> <p>Trend: Annual</p> |

| | |
|---|---|
| <p>Nebraska Community Alcohol Opinion Survey (NCAOS)</p> | <p>A supplemental survey to the Nebraska Annual Social Indicators Survey (NASIS). This survey gauges the opinions and perceptions related to alcohol use from a representative sample of Nebraska adults.</p> <p>Age range: Above 25 years</p> <p>Trend: Biennial</p> |
| <p>Nebraska Drug Related Offenses</p> | <p>State data on arrests related to criminal offenses related to drugs that have led to arrests in the state of Nebraska.</p> <p>Age range: All ages</p> <p>Trend: Annual</p> |
| <p>Nebraska Suicide Mortality</p> | <p>Nebraska Violent Death Reporting System (NeVDRS) collects state-level data on deaths by suicide.</p> <p>Age range: All ages</p> <p>Trend: Annual</p> |
| <p>Nebraska Uniform Crime Reporting (UCR)</p> | <p>UCR collects annual statistics on criminal offenses related to alcohol that have led to arrests in the state of Nebraska.</p> <p>Age range: Below 21 years</p> <p>Trend: Annual</p> |
| <p>Nebraska Vital Statistics</p> | <p>State data on deaths attributable to substance use by age and sex.</p> <p>Age range: All ages</p> <p>Trend: Annual</p> |
| <p>Nebraska Vehicular Crashes</p> | <p>The Nebraska Department of Transportation (NDOT) collects annual statistics on vehicular crashes that involve the consumption of alcohol in relation to the driver(s).</p> <p>Age range: 9-20 years</p> <p>Trend: Annual</p> |
| <p>Nebraska Young Adult Alcohol Opinion Survey (NYAAOS)</p> | <p>A state survey administered by mail to a random sample of young adults once every two years to monitor self-reported alcohol use, alcohol-related risk behaviors, and attitudes and perceptions related to alcohol.</p> |

| | |
|---|---|
| | <p>Age range: 19-25 years</p> <p>Trend: Biennial</p> |
| Nebraska Youth Tobacco Survey (YTS) | <p>Adapted version of CDC’s national youth tobacco surveillance system to improve the capacity to design, implement and evaluate their own tobacco prevention and control programs.</p> <p>Grades: 6th - 12th grade</p> <p>Trend: Biennial</p> |
| Provisional Drug Overdose Deaths | <p>National provisional counts include deaths occurring within the 50 states and the District of Columbia as of the date specified and may not include all deaths that occurred during a given time period. Provisional counts are often incomplete and causes of death may be pending investigation resulting in an underestimate relative to final counts.</p> <p>Age range: All ages</p> <p>Trend: Monthly</p> |
| Suicide Mortality | <p>A national surveillance system reporting the annual suicide mortality rate for the 50 states and D.C.</p> <p>Age range: All ages</p> <p>Trend: Biennial</p> |
| Youth Risk Behavior Surveillance System (YRBSS) | <p>A national system of school-based surveys that monitors health risks and behaviors among youth in grades 9 through 12.</p> <p>Grades: 9th – 12th grade</p> <p>Trend: Biennial</p> |

ALCOHOL

INTRODUCTION

Alcohol (*i.e.* ethanol) is the active ingredient in beverages such as beer, wine, and spirits.¹ It is a psychoactive drug that, when used, may cause euphoria, sedation, and depression of the central nervous system.² It may also impair the senses, memory, cognitive function, and motor functions. Consumption of alcohol in high amounts or with high frequency may result in loss of consciousness, increased risks of certain cancers, damage to the liver and the brain, and death. Alcohol use disorder (AUD) is a chronic relapsing brain disorder characterized by an impaired ability to stop or control alcohol use despite adverse social, occupational, or health consequences.

In the United States, the legal age to drink alcohol is 21 years.³ Drinking alcohol is widely considered socially acceptable among adults. Social establishments such as bars and clubs, and social events such as parties and festivals, often feature the selling and consuming of alcoholic beverages.¹ Alcohol is also strongly associated with negative societal outcomes such as personal injury, crime, assault, violence, and road accidents.⁴

PREVALENCE

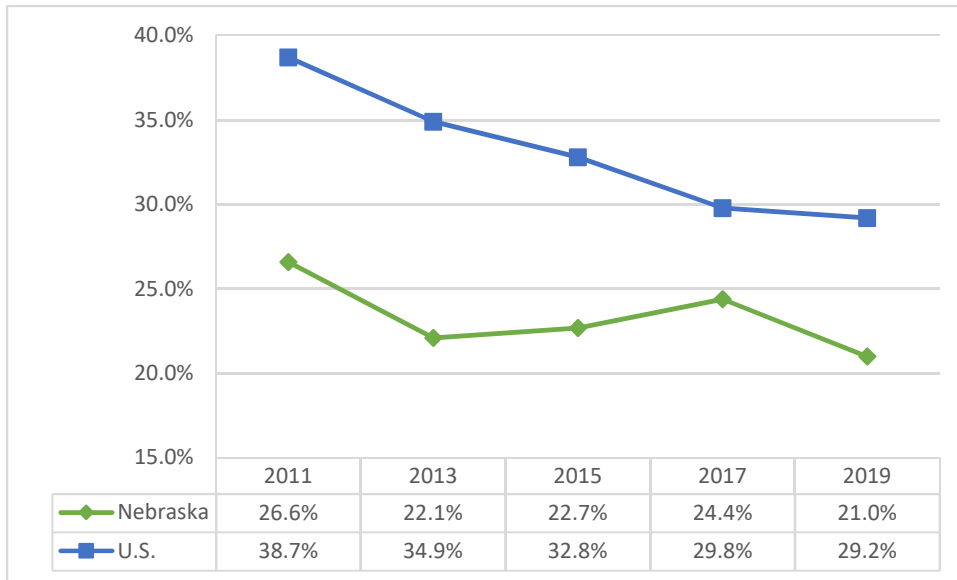
The 2019 Youth Risk Behavior Surveillance System⁵ (YRBSS) reported that 21.0% (17.7-24.8) of Nebraska high school students (9th to 12th grade) and 29.2% (27.3-31.2) of U.S. high school students reported that they had at least one drink of alcohol in the past month (current alcohol use) (*Figure 1*). Females had a higher prevalence of current alcohol use as compared to males and the highest prevalence was among 11th and 12th graders (*Table 1*).

Table 1. Percentage of Nebraska and U.S. high school students reporting current alcohol use, Youth Risk Behavior Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|---------------|--------------|----------|
| Total | 21.0 | 29.2 |
| Gender | | |
| Male | 17.4 | 26.4 |
| Female | 24.7 | 39.1 |
| Grade | | |
| 9th | 9.8 | 19.0 |
| 10th | 19.0 | 26.7 |
| 11th | 24.5 | 32.3 |
| 12th | 30.2 | 39.9 |

Source: CDC, 2019

Figure 1. Percentage of Nebraska and U.S. high school students reporting current alcohol use, Youth Risk Behavior Surveillance System, 2011-2019



Source: CDC, 2011-2019

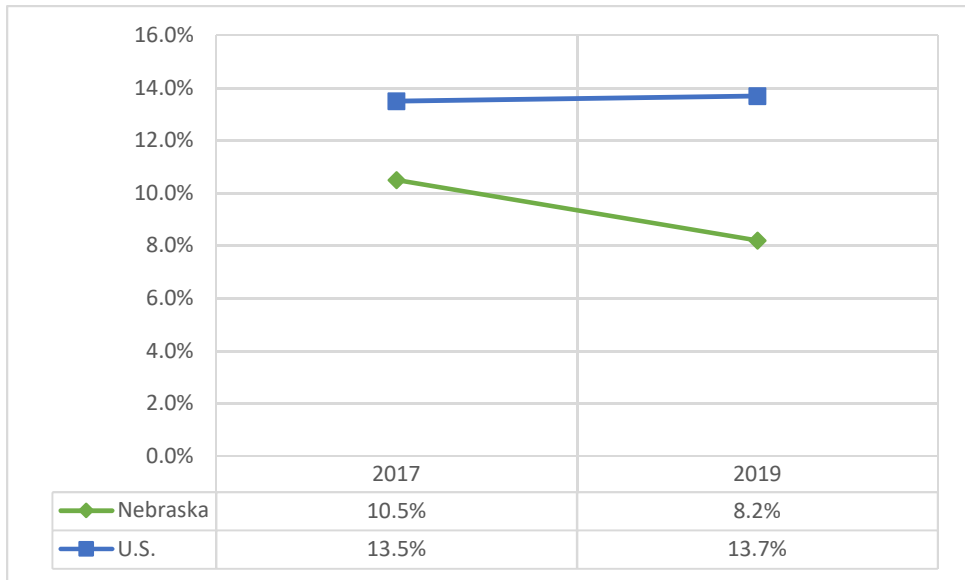
The Centers for Disease Control (CDC) defines binge drinking as having five or more drinks for males and four or more drinks for females in about 2 hours.⁶ In 2019, 8.2% (6.2-10.6) of Nebraska high school students reported binge drinking in the past month (current binge drinking) (*Figure 2*). This estimate was significantly lower than the national estimate of 13.7% (12.3-15.2). The highest prevalence of current binge drinking in Nebraska was among females as compared to males and among 12th graders as compared to 9th, 10th, and 11th graders (*Table 2*).

Table 2. Percentage of Nebraska and U.S. high school students reporting current binge drinking, Youth Risk Behavior Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|---------------|--------------|----------|
| Total | 8.2 | 13.7 |
| Gender | | |
| Male | 6.3 | 12.7 |
| Female | 10.1 | 14.6 |
| Grade | | |
| 9th | 2.0 | 7.3 |
| 10th | 5.9 | 10.6 |
| 11th | 8.9 | 15.3 |
| 12th | 15.2 | 22.4 |

Source: CDC, 2019

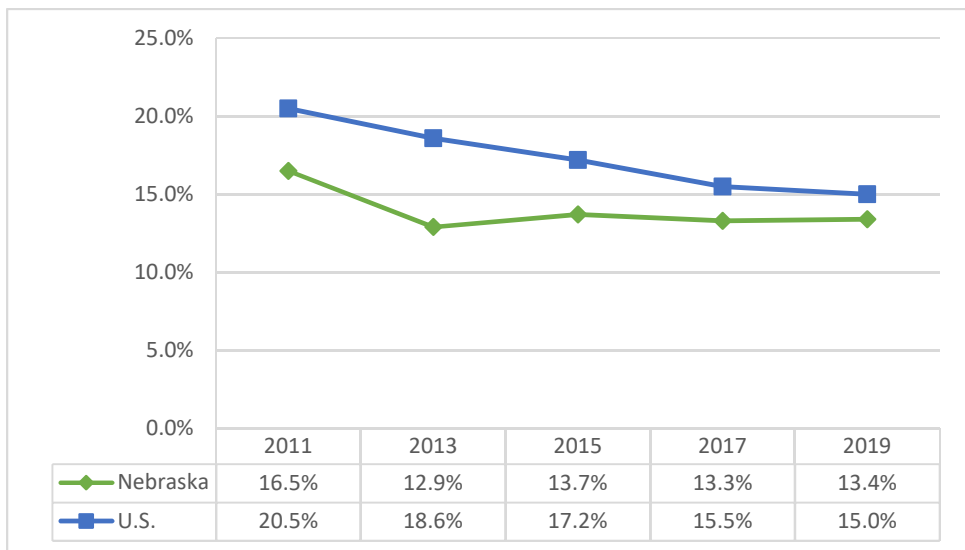
Figure 2. Percentage of Nebraska and U.S. high school students reporting current binge drinking, Youth Risk Behavior Surveillance System, 2017-2019



Source: CDC, 2017-2019

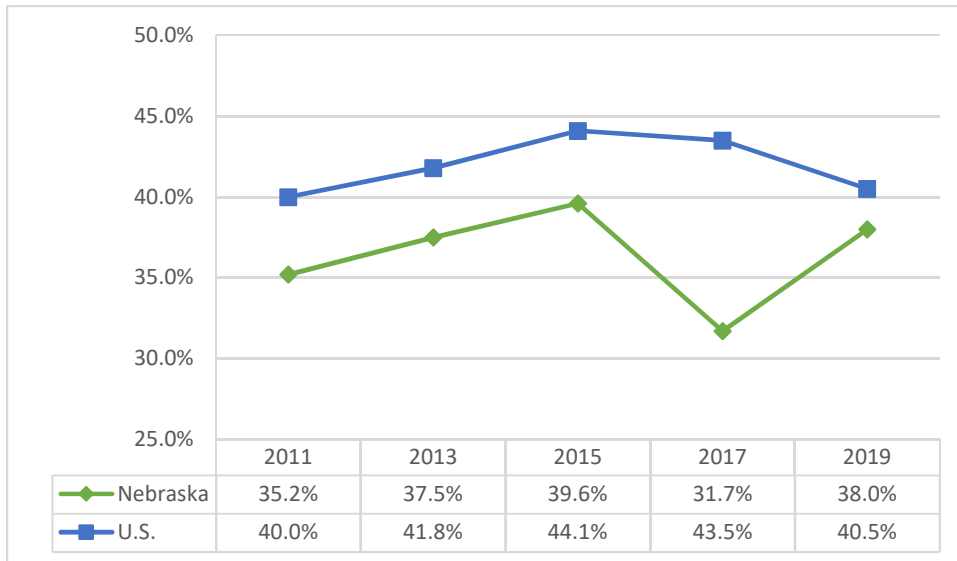
In 2019, among Nebraska high school students who reported alcohol use, 13.4% (11.4-15.7) reported that they had their first drink of alcohol before 13 years of age (*Figure 3*), which was similar to the national rate [15.0% (13.7%-16.4%)]. Additionally, 38.0% (31.1-45.4) of Nebraska high school students and 40.5% (38.2-42.9) of U.S. high school students reported that they obtained their alcohol by someone giving it to them (*Figure 4*).

Figure 3. Percentage of Nebraska and U.S. high school students who tried their first drink of alcohol before age 13, Youth Risk Behavior Surveillance System, 2011-2019



Source: CDC, 2011-2019

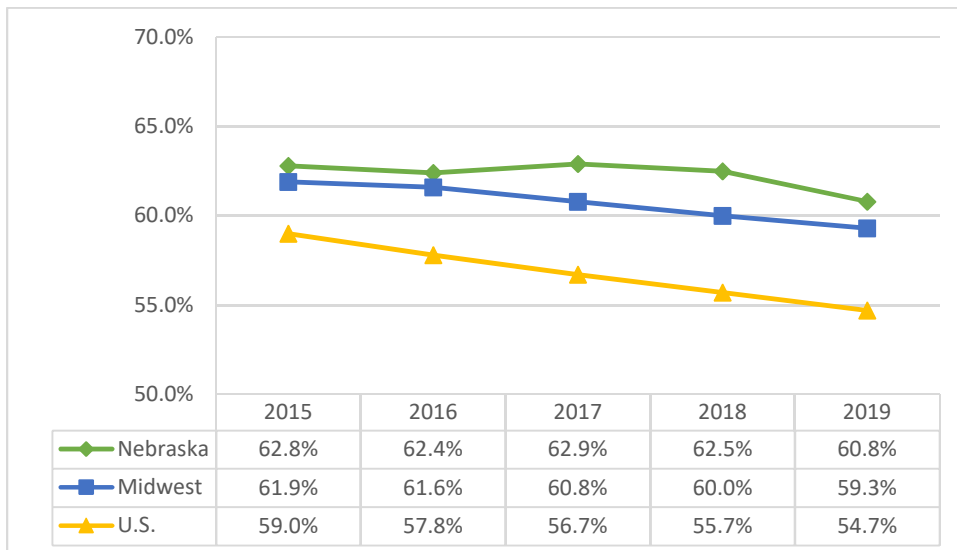
Figure 4. Percentage of Nebraska and U.S. high school students reporting obtaining their alcohol by someone giving it to them, Youth Risk Behavior Surveillance System, 2011-2019



Source: CDC, 2011-2019

According to the 2019 National Survey on Drug Use and Health⁷ (NSDUH), 60.8% (56.6-64.7) of young adults (18-25 years) in Nebraska reported alcohol use in the past month (*Figure 5*). This estimate was similar to the Midwest [59.3% (57.8-60.8)] but significantly higher than the U.S. estimate [54.7% (53.9-55.5)].

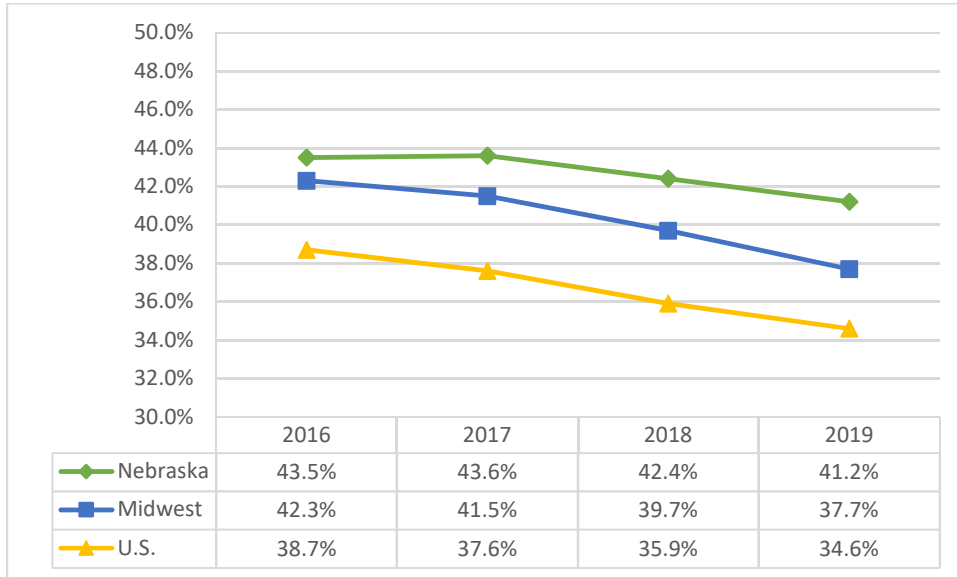
Figure 5. Percentage of Nebraska, Midwest, and U.S. young adults reporting current alcohol use, National Survey on Drug Use and Health, 2015-2019



Source: SAMHSA, 2015-2019

Additionally, 41.2% of Nebraska young adults reported current binge drinking use in the past month, which was similar to the Midwest [37.7% (36.4-39.2)] but significantly higher than the U.S. [34.6% (33.8-35.3)] (*Figure 6*).

Figure 6. Percentage of Nebraska, Midwest, and U.S. young adults reporting current binge drinking, National Survey on Drug Use and Health, 2016-2019



Source: SAMHSA, 2016-2019

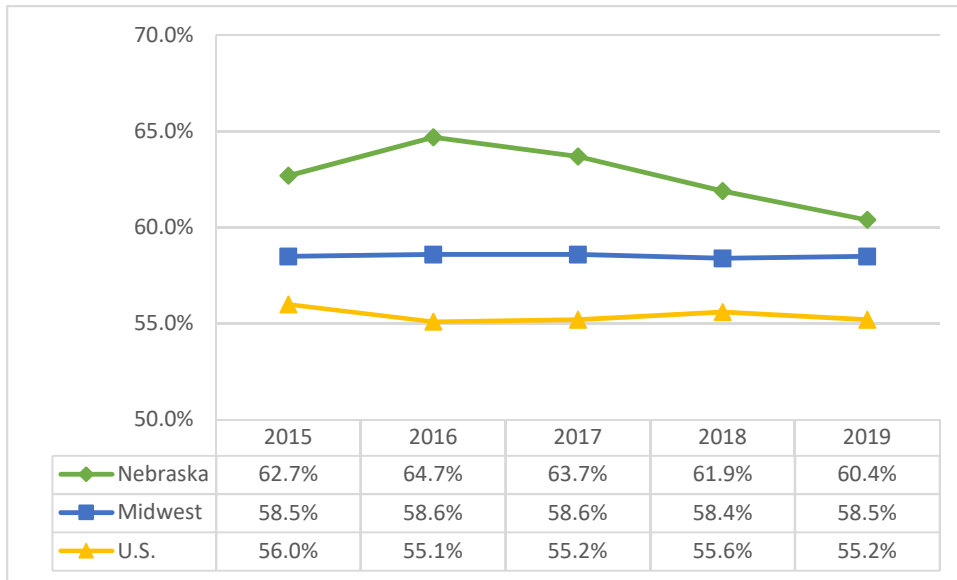
The 2019 Behavioral Risk Factor Surveillance System⁸ (BRFSS) reported that 59.5% (58.4-60.6) of adults (18 years and above) in Nebraska reported current alcohol use, which is tied for 9th highest state estimate (*Table 3*). According to the NSDUH, among adults (26 years and above) 60.3% (56.9-63.7) reported current alcohol use. The prevalence for Nebraska was similar to the Midwest [58.5% (57.5 - 59.4)]; but significantly higher than the national estimate [55.2% (54.6-55.8)] (*Figures 7 and 8*).

Table 3. Percentage of Nebraska adults reporting current alcohol use, Behavioral Risk Factor Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|-------------------------------------|---------------------|-----------------|
| Total | 59.5 | 52.8 |
| Gender | | |
| Male | 64.2 | 58.6 |
| Female | 54.9 | 47.2 |
| Age | | |
| 18-24 | 55.8 | 51.1 |
| 25-34 | 69.0 | 62.1 |
| 35-44 | 67.4 | 58.6 |
| 45-54 | 62.4 | 55.0 |
| 55-64 | 58.9 | 50.5 |
| 65+ | 46.6 | 42.0 |
| Race/Ethnicity | | |
| White | 63.1 | 56.3 |
| Black | 46.1 | 48.1 |
| American Indian or Alaskan Native | 43.9 | 41.3 |
| Asian | 41.4 | 45.2 |
| Native Hawaiian or Pacific Islander | N/A | 48.6 |
| Other | 38.2 | 45.9 |
| Multiracial | 53.9 | 50.8 |
| Hispanic | 41.1 | 46.3 |
| Education | | |
| Less than H.S. | 31.5 | 33.9 |
| H.S. or G.E.D. | 50.6 | 45.4 |
| Some post-H.S. | 63.6 | 55.1 |
| College Graduate | 71.9 | 65.8 |
| Household Income | | |
| Less than \$15,000 | 37.3 | 34.2 |
| \$15,000-\$24,999 | 41.8 | 40.4 |
| \$25,000-34,999 | 51.3 | 46.0 |
| \$35,000-\$49,999 | 59.0 | 52.7 |
| \$50,000+ | 72.5 | 65.8 |

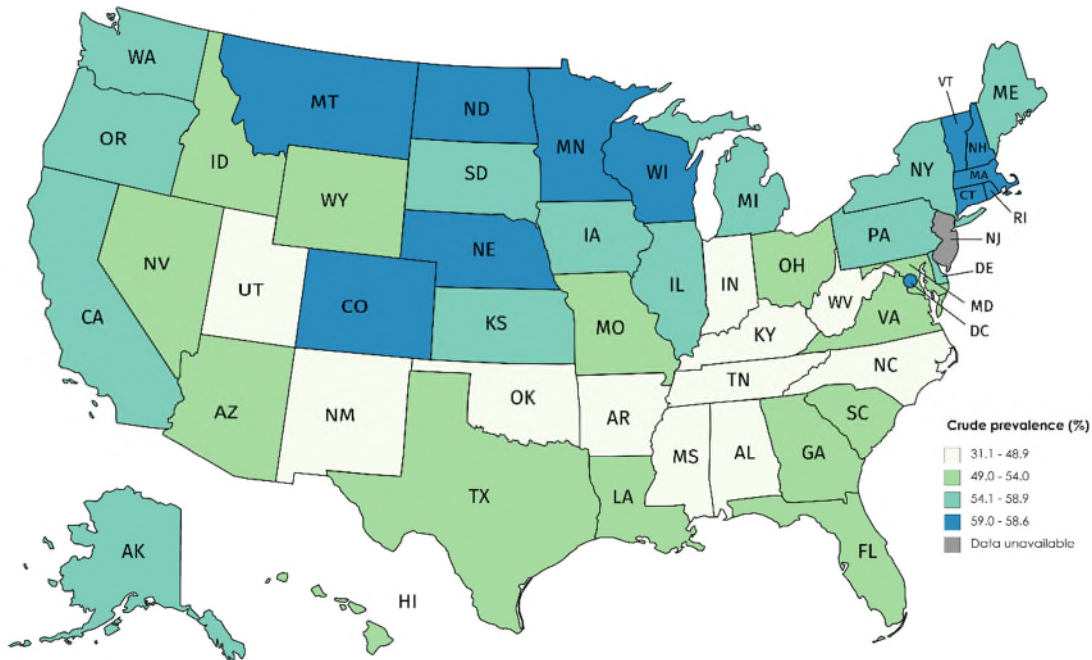
Source: CDC, 2019

Figure 7. Percentage of Nebraska, Midwest, and U.S. adults reporting current alcohol use, National Survey on Drug Use and Health, 2015-2019



Source: SAMHSA, 2015-2019

Figure 8. Prevalence quartiles of adults reporting current alcohol use in the U.S., Behavioral Risk Factor Surveillance System, 2019



Source: CDC, 2019

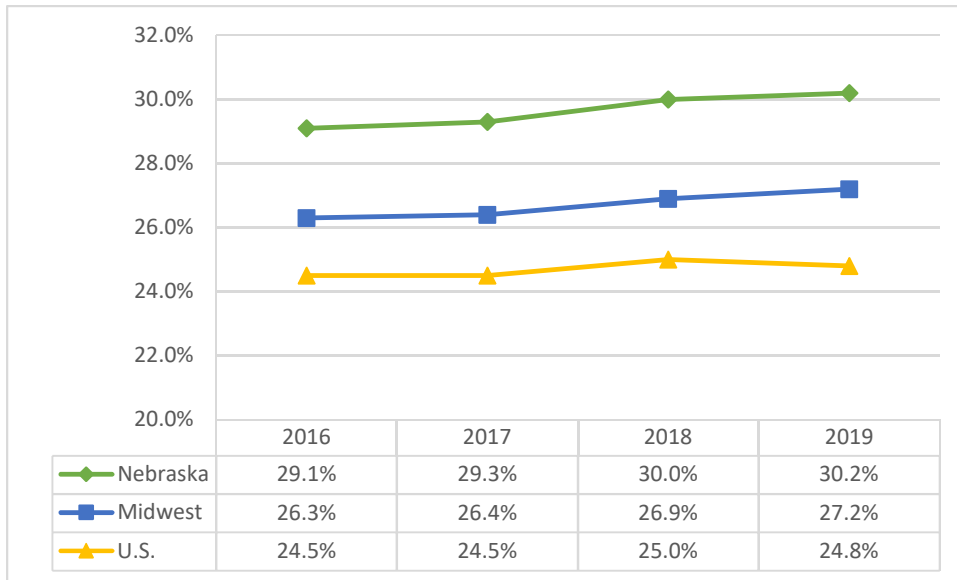
According to the 2019 BRFSS, 20.9% (19.9-21.9) of adults in Nebraska reported current binge alcohol use, which is the fourth highest estimate among U.S. states (*Table 4*). The NSDUH reported that the prevalence for current binge alcohol use among adults in Nebraska was 30.2% (27.1-33.5). This was significantly higher than that of the Midwest [27.2% (26.3 - 28.0)] and the U.S. [24.8% (24.4 - 25.3)] (*Figures 9 and 10*).

Table 4. Percentage of Nebraska adults reporting current binge alcohol use, Behavioral Risk Factor Surveillance System, 2019

| | Nebraska (%) | U.S (%) |
|-------------------------------------|---------------------|----------------|
| Total | 20.9% | 16.7 |
| Gender | | |
| Male | 26.1 | 21.5 |
| Female | 15.7 | 12.2 |
| Age | | |
| 18-24 | 31.5 | 24.5 |
| 25-34 | 31.4 | 26.3 |
| 35-44 | 28.6 | 21.4 |
| 45-54 | 19.5 | 16.1 |
| 55-64 | 15.7 | 11.7 |
| 65+ | 5.0 | 5.4 |
| Race/Ethnicity | | |
| White | 21.7 | 17.3 |
| Black | 15.4 | 13.9 |
| American Indian or Alaskan Native | 30.0 | 15.8 |
| Asian | N/A | 11.4 |
| Native Hawaiian or Pacific Islander | N/A | 21.4 |
| Other | N/A | 13.8 |
| Multiracial | 28.1 | 16.2 |
| Hispanic | 15.9 | 18.0 |
| Education | | |
| Less than H.S. | 11.9 | 14.0 |
| H.S. or G.E.D. | 18.7 | 16.0 |
| Some post-H.S. | 23.4 | 17.9 |
| College Graduate | 22.8 | 17.3 |
| Household Income | | |
| Less than \$15,000 | 14.5 | 13.2 |
| \$15,000-\$24,999 | 15.1 | 14.1 |
| \$25,000-34,999 | 18.4 | 15.6 |
| \$35,000-\$49,999 | 23.1 | 16.5 |
| \$500,00+ | 25.1 | 20.7 |

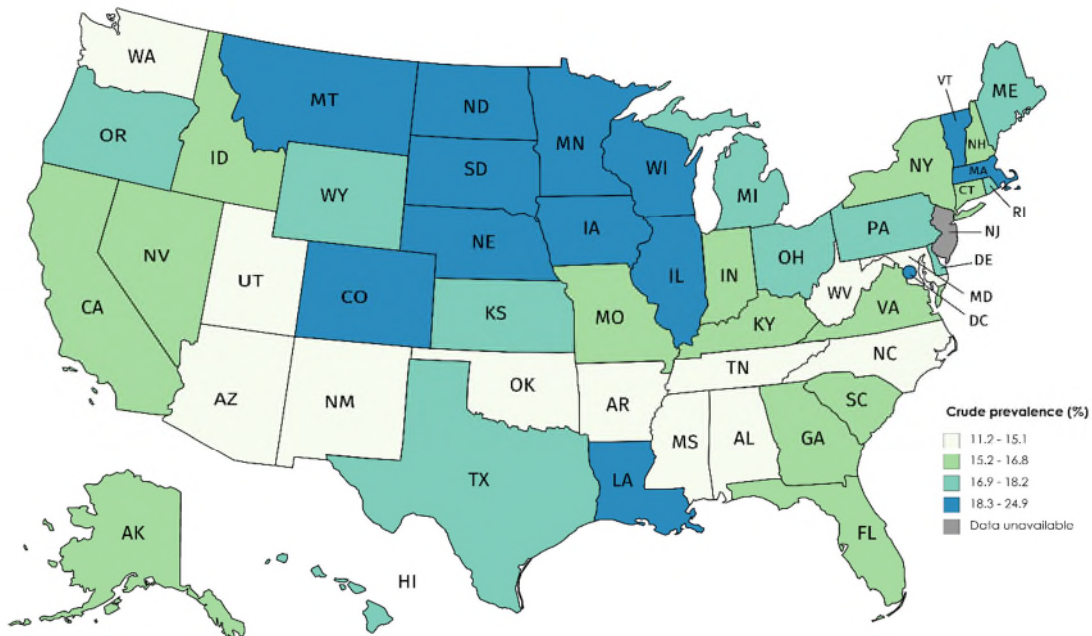
Source: CDC, 2019

Figure 9. Percentage of Nebraska, Midwest, and U.S. adults reporting current binge alcohol use, National Survey on Drug Use and Health, 2016-2019



Source: SAMHSA, 2016-2019

Figure 10. Prevalence quartiles of adults reporting current binge alcohol use in the U.S., Behavioral Risk Factor Surveillance System, 2019



Source: CDC, 2019

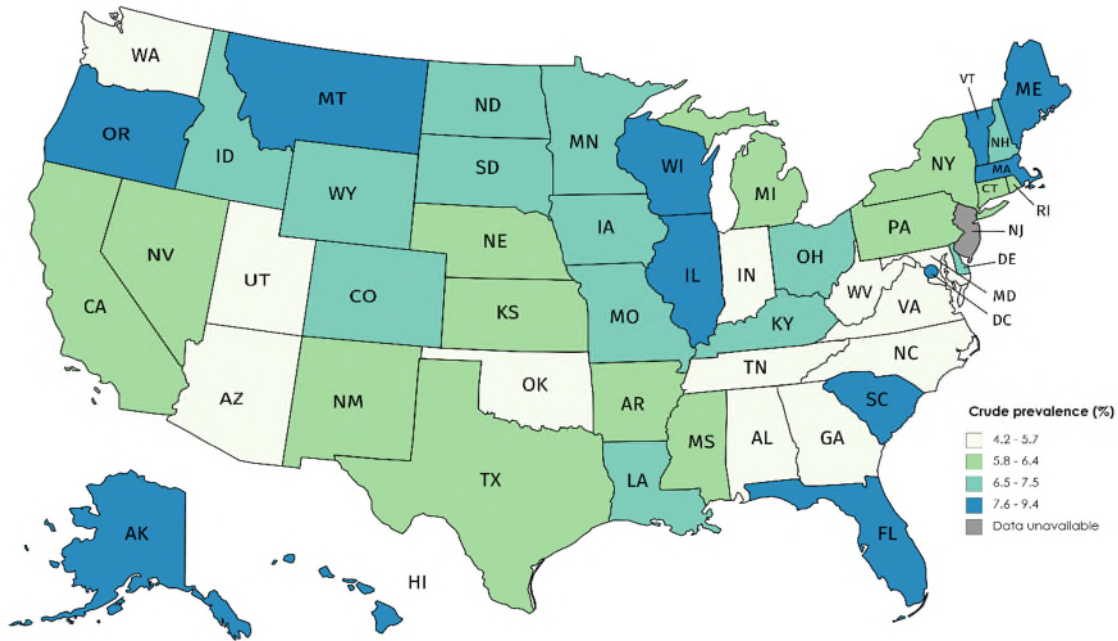
The CDC defines heavy drinking as having more than fourteen drinks per week for adult males and having more than seven drinks per week for adult females.⁹ In 2019, 6.2% (5.6-6.8) of adults in Nebraska (30th) and 6.5% of adults in the U.S. reported heavy drinking (*Table 5; Figures 11 and 12*).

Table 5. Percentage of Nebraska adults reporting heavy drinking, Behavioral Risk Factor Surveillance System, 2019

| | Nebraska (%) | U.S (%) |
|-------------------------------------|--------------|---------|
| Total | 6.2 | 6.5 |
| Gender | | |
| Male | 7.1 | 6.8 |
| Female | 5.4 | 6.0 |
| Age | | |
| 18-24 | 6.0 | 7.2 |
| 25-34 | 8.0 | 7.7 |
| 35-44 | 8.0 | 7.2 |
| 45-54 | 5.7 | 6.8 |
| 55-64 | 6.6 | 6.2 |
| 65+ | 3.6 | 4.2 |
| Race/Ethnicity | | |
| White | 6.9 | 7.3 |
| Black | N/A | 5.0 |
| American Indian or Alaskan Native | N/A | 6.3 |
| Asian | N/A | 3.0 |
| Native Hawaiian or Pacific Islander | N/A | 7.0 |
| Other | N/A | 6.7 |
| Multiracial | N/A | 6.2 |
| Hispanic | 2.6 | 5.0 |
| Education | | |
| Less than H.S. | 4.0 | 5.3 |
| H.S. or G.E.D. | 6.1 | 6.2 |
| Some post-H.S. | 7.5 | 6.9 |
| College Graduate | 5.5 | 6.5 |
| Household Income | | |
| Less than \$15,000 | 4.3 | 5.0 |
| \$15,000-\$24,999 | 4.9 | 5.3 |
| \$25,000-34,999 | 6.2 | 6.4 |
| \$35,000-\$49,999 | 7.7 | 6.7 |
| \$50,000+ | 7.1 | 7.9 |

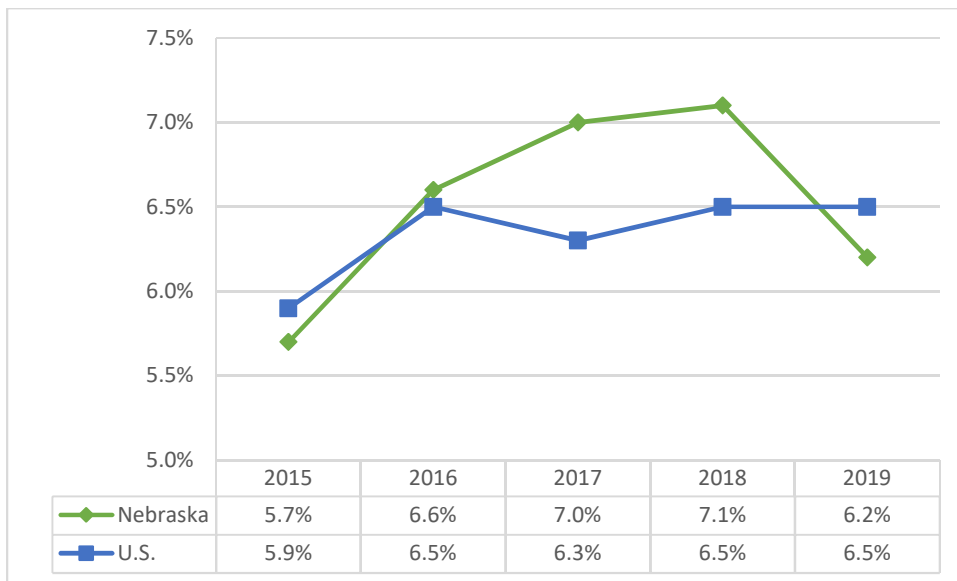
Source: CDC, 2019

Figure 11. Prevalence quartiles of adults reporting heavy drinking in the U.S., Behavioral Risk Factor Surveillance System, 2019



Source: CDC, 2019

Figure 12. Percentage of Nebraska and U.S. adults reporting heavy drinking, Behavioral Risk Factor Surveillance System, 2015-2019

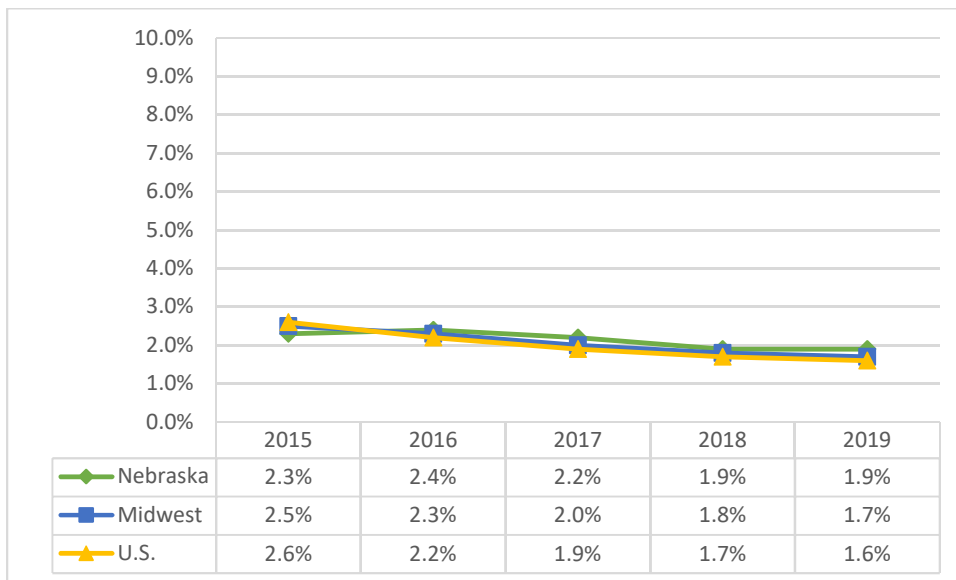


Source: CDC, 2015-2019

CONSEQUENCES

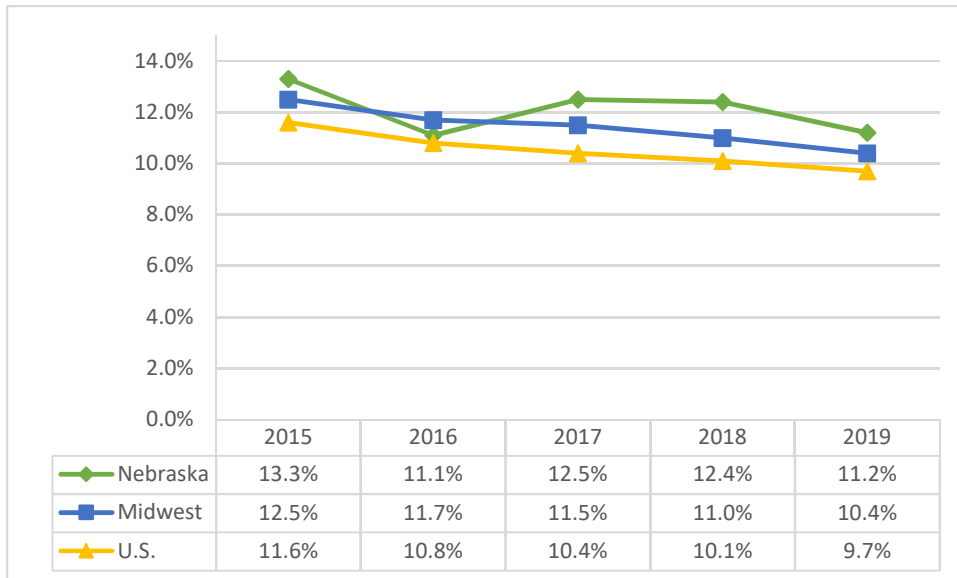
Excessive alcohol use can lead to harmful health effects. According to the Centers for Disease Control and Prevention (CDC), from 2011 to 2015, excessive alcohol use led to approximately 95,000 deaths and the loss of 2.8 million years of potential life in the U.S. Consumption of excessive alcohol over time can lead to several chronic health conditions such as high blood pressure, heart diseases, stroke, liver diseases, digestive problems, and cancers.¹⁰ In 2019, the NSDUH reported that 1.9% (1.3 - 2.6) of adolescents (13-17 years), 11.2% (9.2 - 13.7) of young adults, and 5.2% (4.1 - 6.6) of adults in Nebraska reported having an alcohol use disorder in the past year, which were similar to rates in the Midwest and the U.S. (*Figures 13, 14, and 15*).

Figure 13. Percentage of Nebraska, Midwest, and U.S. adolescents reporting alcohol use disorder in the past year, National Survey on Drug Use and Health, 2015-2019



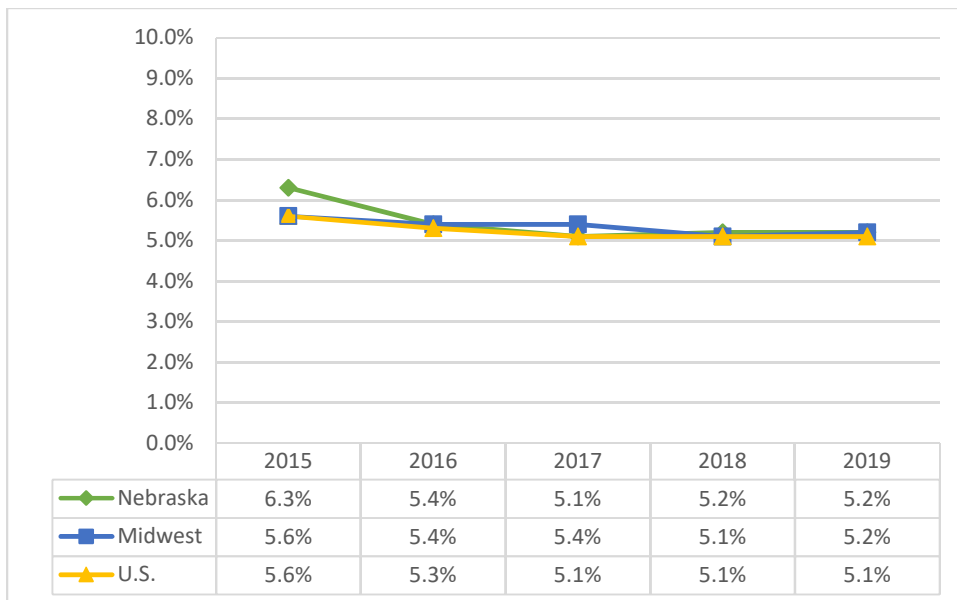
Source: SAMHSA, 2015-2019

Figure 14. Percentage of Nebraska, Midwest, and U.S. young adults reporting alcohol use disorder in the past year, National Survey on Drug Use and Health, 2015-2019



Source: SAMHSA, 2015-2019

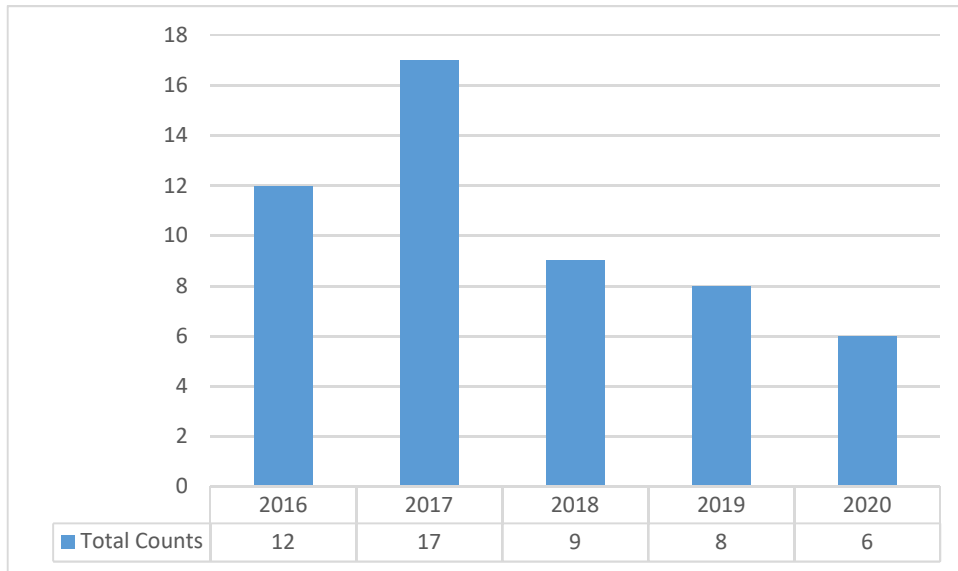
Figure 15. Percentage of Nebraska, Midwest, and U.S. adults reporting alcohol use disorder in the past year, National Survey on Drug Use and Health, 2015-2019



Source: SAMHSA, 2015-2019

Deaths from alcohol may be attributable to behavioral disorders due to use of alcohol, accidental poisoning by exposure to alcohol, and intentional self-poisoning by exposure to alcohol (*Figure 16*).¹¹

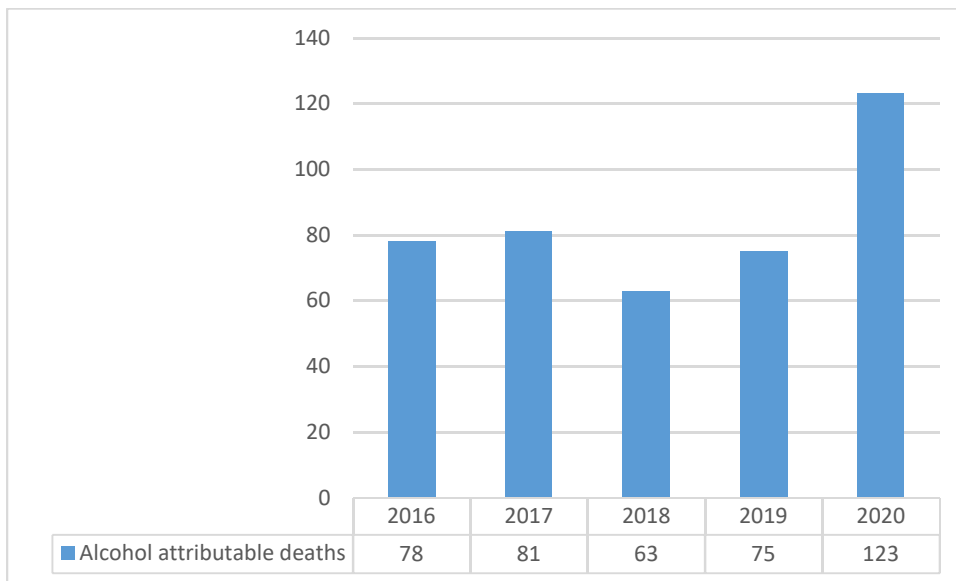
Figure 16. Total number of accidental poisoning by and exposure to alcohol, Office of Vital Records, Nebraska, 2016-2020



Source: Nebraska DHHS, 2016-2020

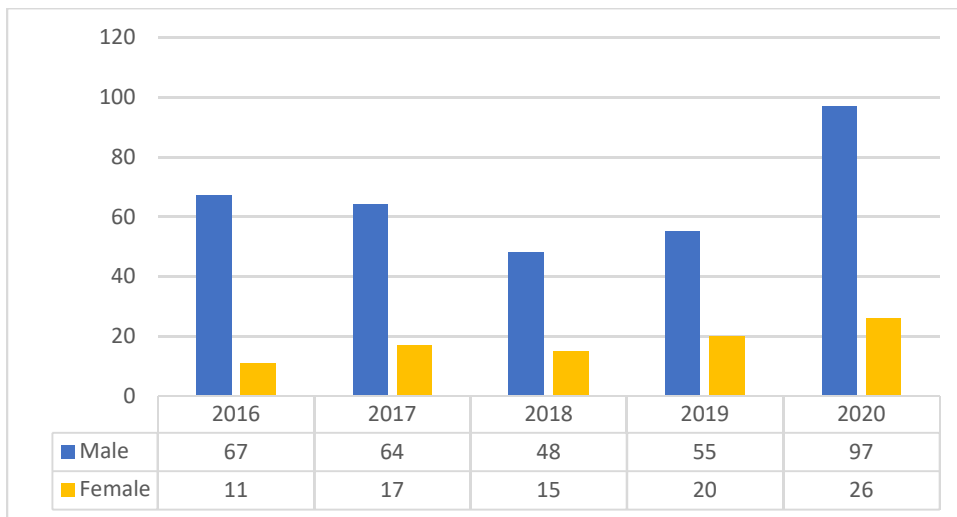
In 2020, the Nebraska Office of Vital Records reported that there were 123 alcohol attributable deaths, an increase of 64% from the previous year (*Figure 17*). The highest prevalence of alcohol-attributable deaths in Nebraska was among males and among those aged 55 to 64 years (*Figures 18 and 19*).

Figure 17. Total number of alcohol-attributable deaths, Office of Vital Records, Nebraska, 2016-2020



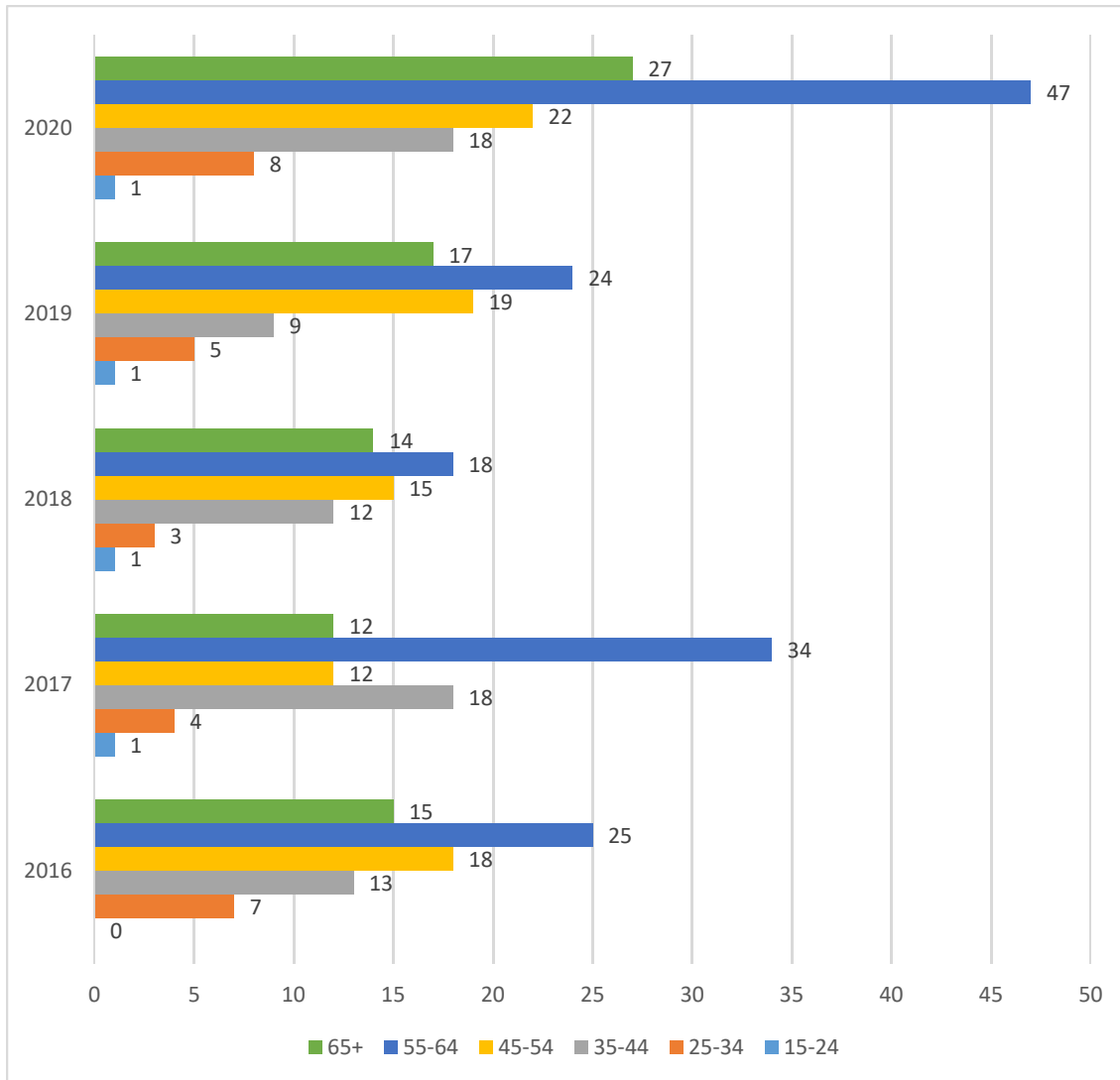
Source: Nebraska DHHS, 2016-2020

Figure 18. Total number of alcohol-attributable deaths by sex, Office of Vital Records, Nebraska, 2016-2020



Source: Nebraska DHHS, 2016-2020

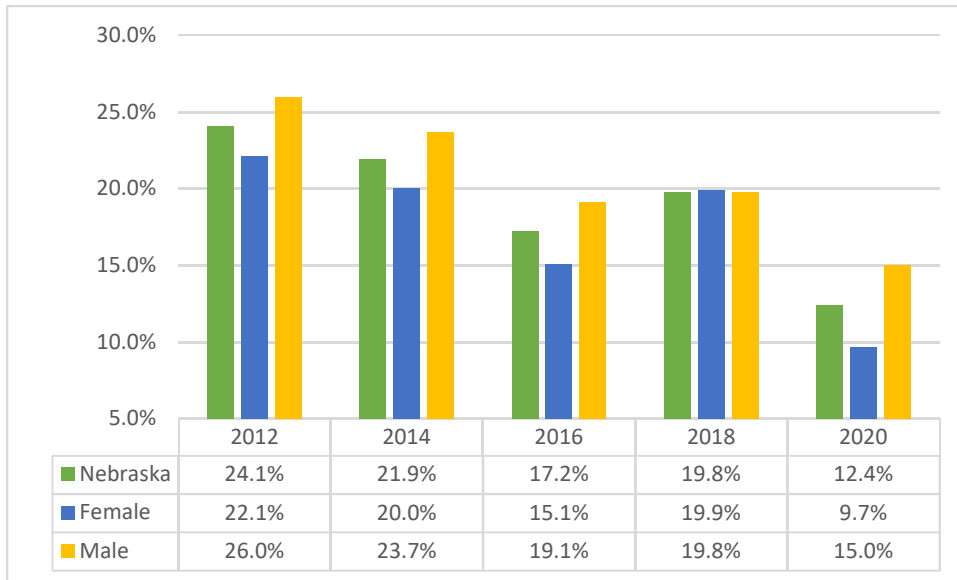
Figure 19. Total number of alcohol-attributable deaths by age, Office of Vital Records, Nebraska, 2016-2020



Source: Nebraska DHHS, 2016-2020

Alcohol-impaired driving is responsible for claiming thousands of lives and causing billions in damages each year due to vehicular accidents.¹² According to the Nebraska Young Adult Alcohol Opinion Survey¹³ (NYAAOS), rates of driving under the influence among young adults (19 to 25 years) have been decreasing over time. In 2020, 12.4% of young adults in Nebraska reported driving under the influence of alcohol in the past year and 16.8% reported having ridden in a vehicle driven by someone who was under the influence of alcohol in the past year. Males in Nebraska were more likely to drive under the influence of alcohol as compared to females; young adults aged 21 to 25 years had thrice the likelihood of driving under the influence of alcohol (*Figure 20*).

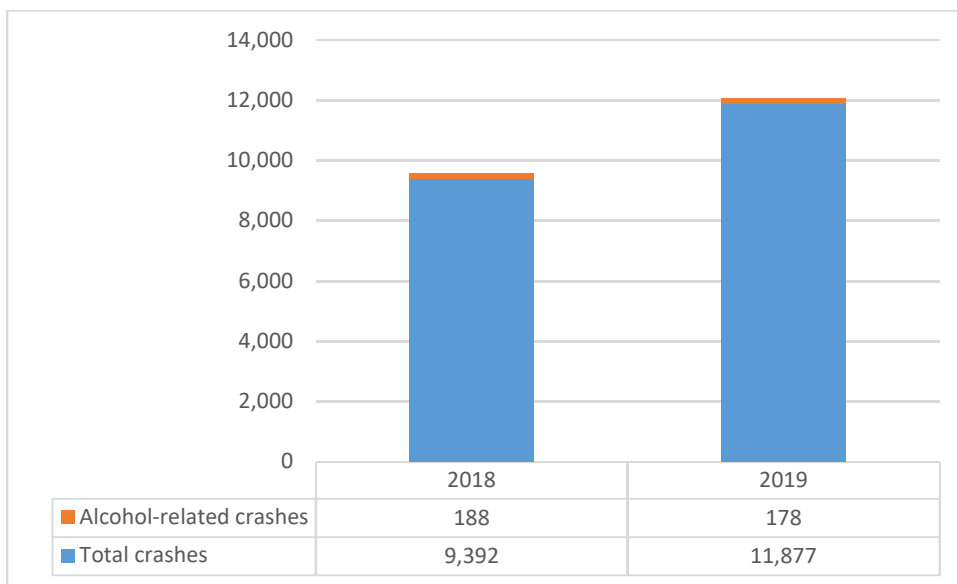
Figure 20. Percentage of Nebraska young adults reporting past year alcohol impaired driving, Nebraska Young Adult Alcohol Opinion Survey, 2012-2020



Source: Nebraska DHHS, 2012-2020

According to the Nebraska Department of Transportation¹⁴ (NDOT), out of the 11,877 crashes in 2019, 1.5% were alcohol-related (*Figure 21*). While the overall number of vehicular crashes directly involving minors in the state of Nebraska has increased from 2018 to 2019, the percent of those crashes that were alcohol-related has decreased.

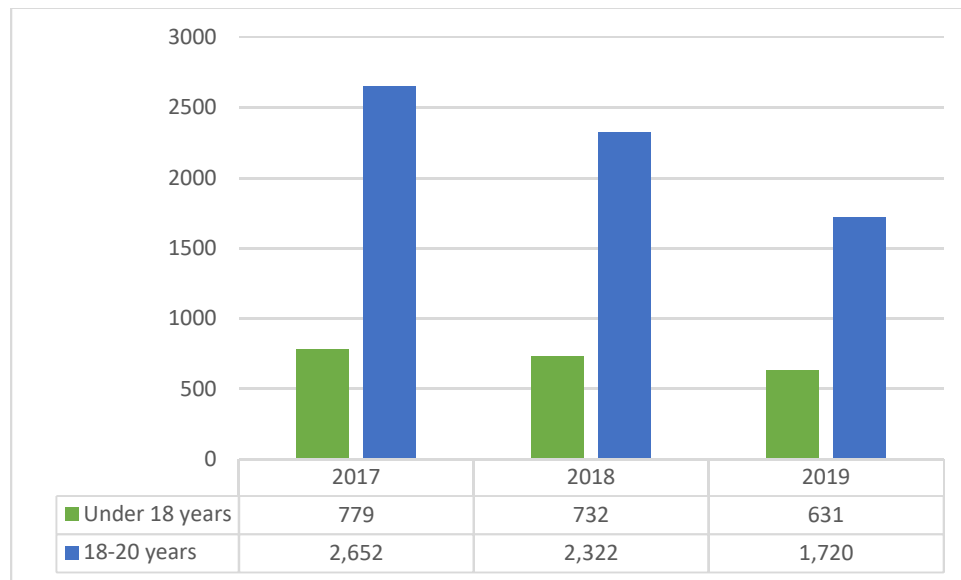
Figure 21. Percentage of alcohol-related crashes compared to total annual crashes in Nebraska among 9-20 year olds, Nebraska Department of Transportation 2018-2019



Source: NDOT, 2018-2019

Additionally, the Nebraska Commission on Law Enforcement and Criminal Justice reported that there were a total of 2,351 alcohol-related crimes in 2019 (*Figure 22*).¹⁵ The number of arrests due to alcohol-related crimes (*i.e.* DUIs and other liquor law violations) among Nebraskans aged 18 to 20 years was nearly three times that of Nebraskans under 18 years. However, the number of arrests due to alcohol-related crimes in Nebraska has been decreasing over time.

Figure 22. Underage arrests for alcohol-related crimes in Nebraska, Commission on Law Enforcement and Criminal Justice, 2017-2019



Source: Nebraska Commission on Law Enforcement and Criminal Justice, 2017-2019

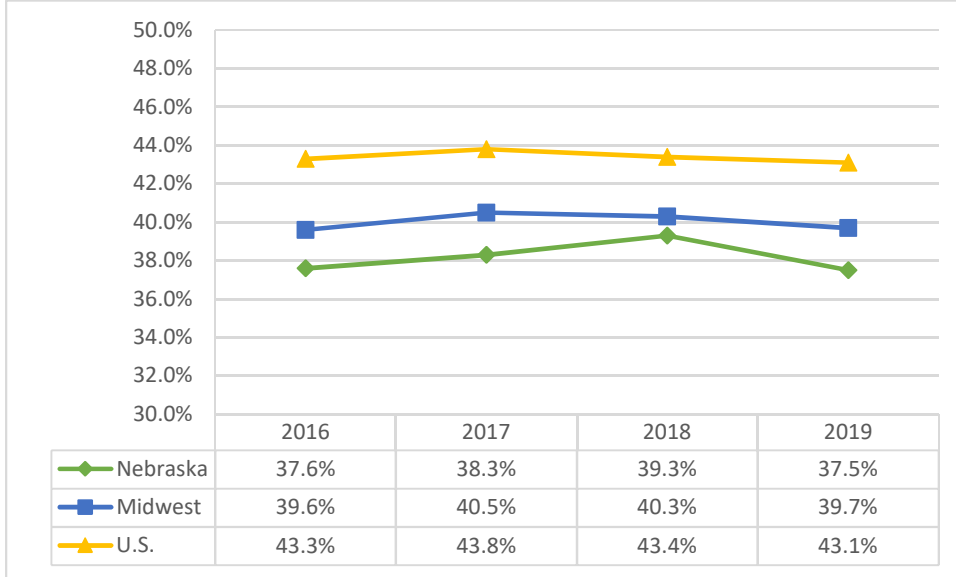
Lastly, the economic costs of excessive alcohol use were \$249 billion for the U.S. and \$1.2 billion for Nebraska according to the Centers for Disease Control and Prevention.¹⁶ About 11% of the total costs account for healthcare expenses for problems caused by excessive drinking, 10% for law enforcement and justice expenses, 5% due to losses from motor vehicle crashes related to excessive alcohol use, and 72% due to losses in workplace productivity.

PERCEPTIONS AND SOCIAL NORMS

Historically, an individual's perception of the risks associated with alcohol use has been an important determinant of whether a person consumes alcohol.¹⁷ Social norms also may shape an individual's decision to drink. Initiation of alcohol use often occurs during the transition to adulthood, a time when youth and young adults may feel invincible and, also, highly susceptible to peer and parental influence.

The 2019 NSDUH reported that 37.5% (34.5 - 40.6) of adolescents in Nebraska perceived great risk from having five or more drinks of an alcoholic beverage once or twice a week (*Figure 23*).

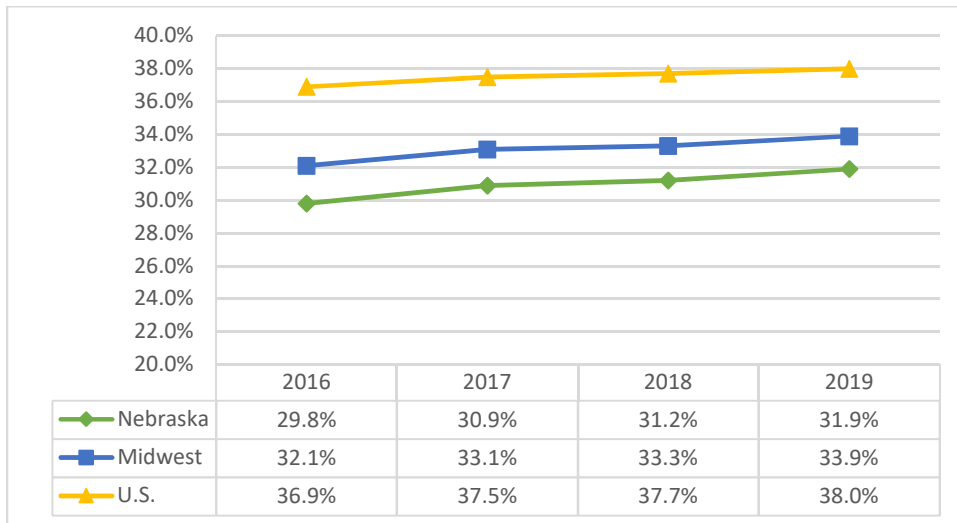
Figure 23. Percentage of Nebraska, Midwest, and U.S. adolescents perceiving great risk from having five or more drinks of an alcoholic beverage once or twice a week, National Survey on Drug Use and Health, 2016-2019



Source: SAMHSA, 2016-2019

Among young adults, 31.9% (29.2-34.9) perceived great risk from having five or more drinks of an alcoholic beverage once or twice a week. However, a higher proportion of young adults in both the Midwest and the U.S. shared this perception (*Figure 24*).

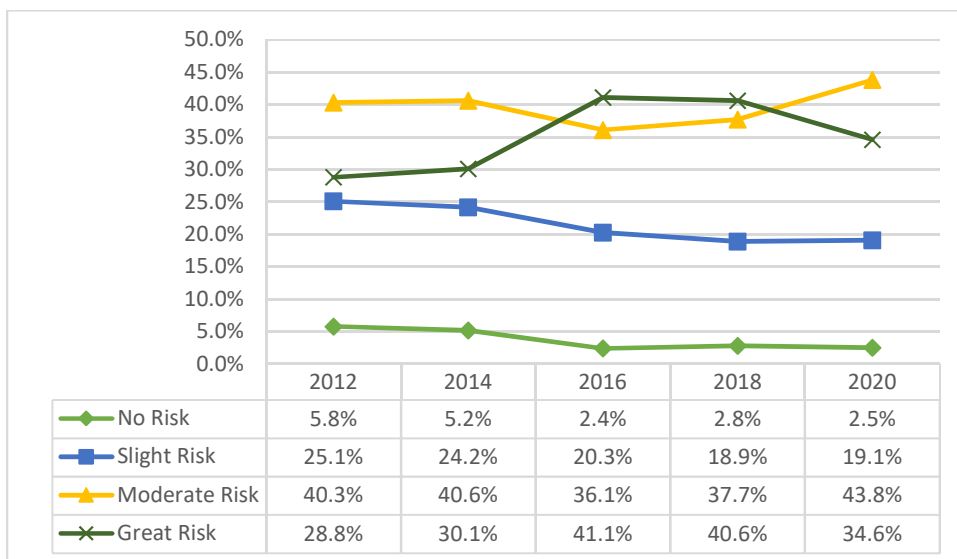
Figure 24. Percentage of Nebraska, Midwest, and U.S. young adults perceiving great risk from having five or more drinks of an alcoholic beverage once or twice a week, National Survey on Drug Use and Health, 2016-2019



Source: SAMHSA, 2016-2019

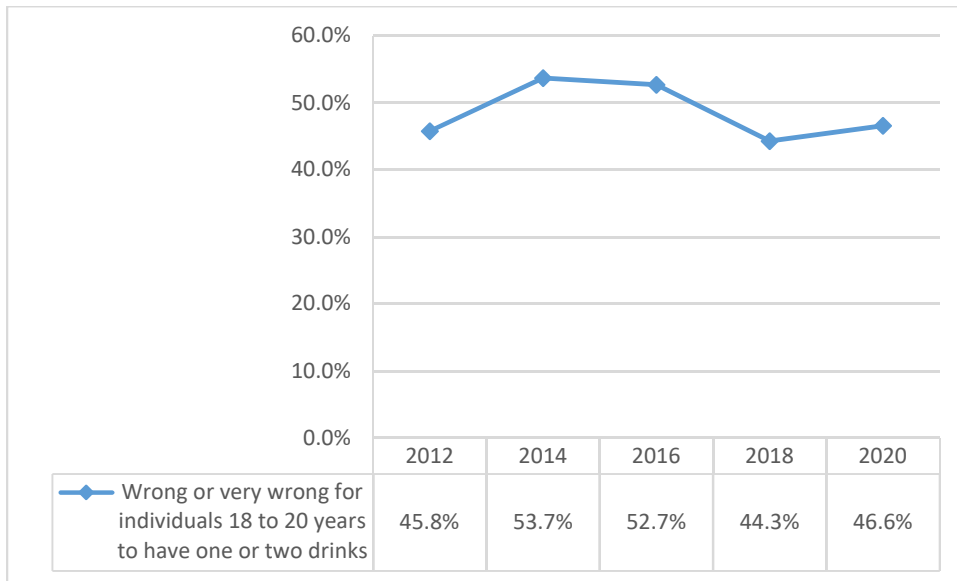
The NYAAOS reported that 34.6% of Nebraska young adults perceived great risk from binge drinking among individuals aged 19 to 25 year in 2020 (*Figure 25*). While 80.4% reported that it was wrong or very wrong for individuals 21 years and older to provide alcohol for people under 21 years (*Figure 27*), only 46.6% reported that it was wrong or very wrong for individuals aged 18 to 20 years to have one or two drinks (*Figure 26*).

Figure 25. Percentage of Nebraska young adults perceiving great risk from binge drinking among 19-25 year olds, Nebraska Young Adult Alcohol Opinion Survey, 2012-2020



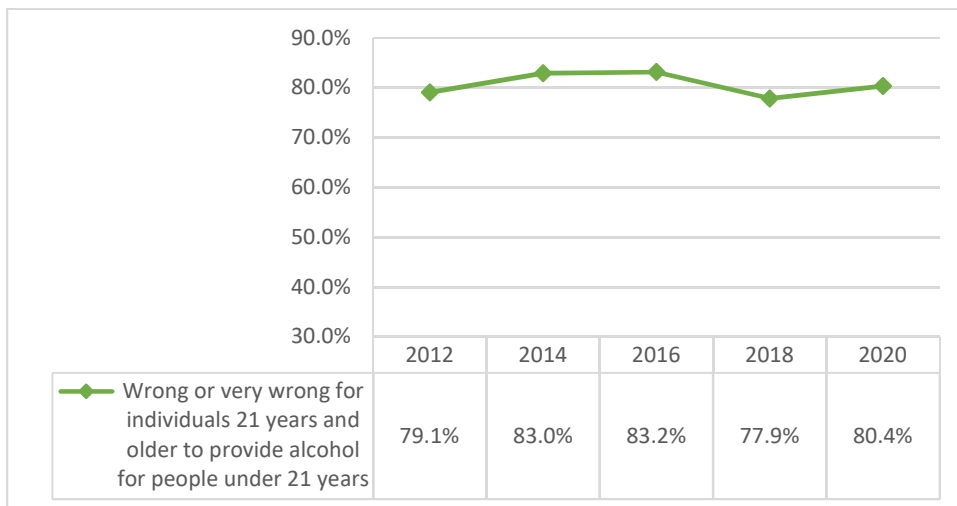
Source: Nebraska DHHS, 2012-2020

Figure 26. Percentage of Nebraska young adults reporting wrong or very wrong for individuals 18 to 20 years to have one or two drinks, Nebraska Young Adult Alcohol Opinion Survey, 2012-2020



Source: Nebraska DHHS, 2012-2020

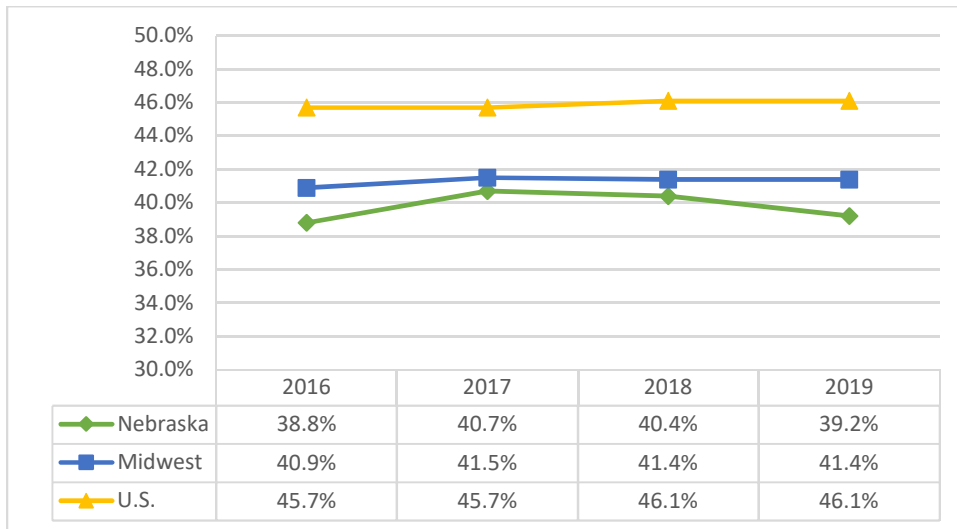
Figure 27. Percentage of Nebraska young adults reporting wrong or very wrong for individuals 21 years and older to provide alcohol for people under 21 years, Nebraska Young Adult Alcohol Opinion Survey, 2012-2020



Source: Nebraska DHHS, 2012-2020

The 2019 NSDUH reported that 39.2% (36.4 - 42.1) of Nebraska adults perceived great risk from having five or more drinks of an alcoholic beverage once or twice a week (*Figure 28*). Adults in the Midwest [41.4% (40.5 - 42.3)] perceived similar levels of risk, while adults throughout the U.S. [46.1% (45.6 - 46.6)] had significantly higher levels of perceived risk.

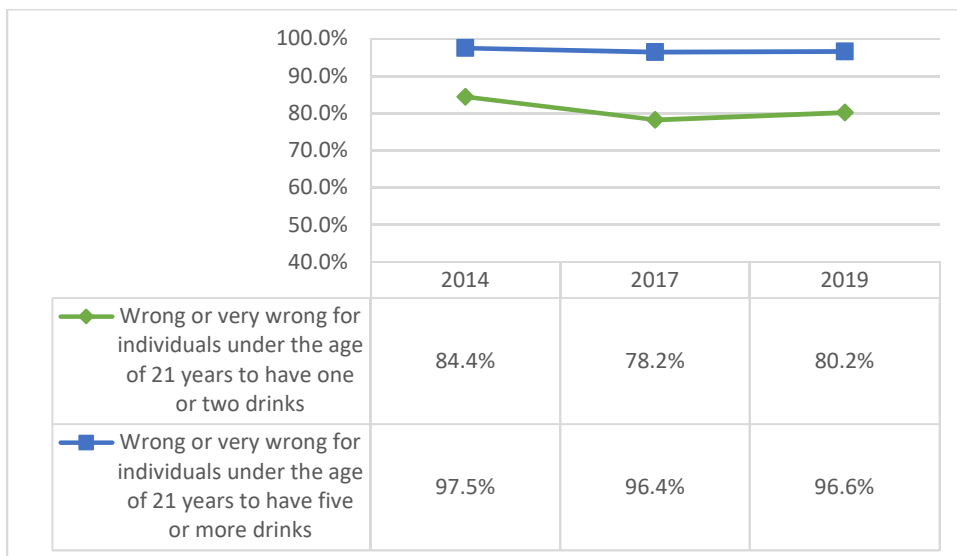
Figure 28. Percentage of Nebraska, Midwest, and U.S. adults perceiving great risk from having five or more drinks of an alcoholic beverage once or twice a week, National Survey on Drug Use and Health, 2016-2019



Source: SAMHSA, 2016-2019

According to the 2019 Nebraska Community Alcohol Opinion Survey¹⁸ (NCAOS), 80.2% of Nebraska adults (above 25 years) reported that it was wrong or very wrong for individuals under the age of 21 years to have one or two drinks, and 96.6% of adults reported that it was wrong or very wrong for individuals under the age of 21 years to have five or more drinks (*Figure 29*).

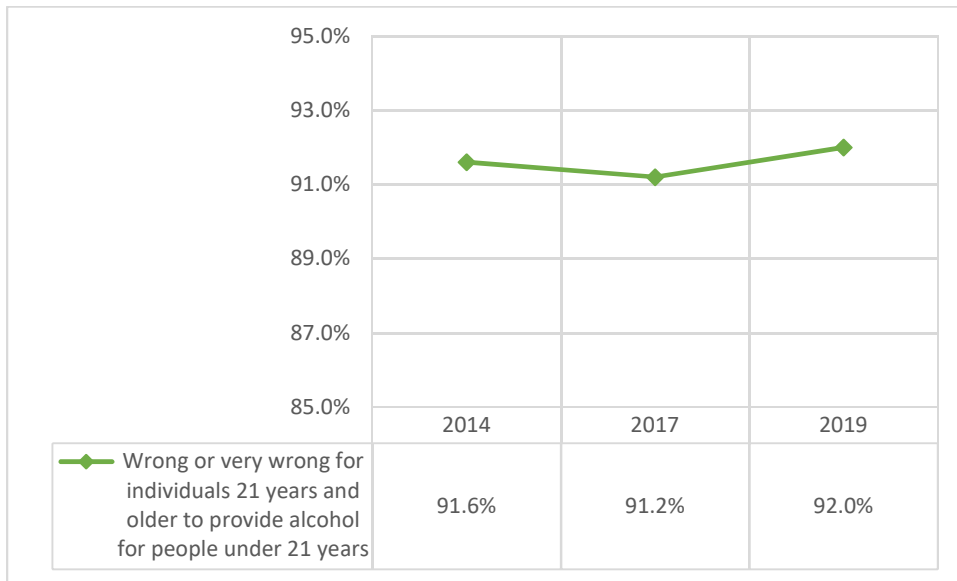
Figure 29. Percentage of Nebraska adults reporting wrong or very wrong for individuals under the age of 21 years by number of drinks, Nebraska Community Alcohol Opinion Survey, 2014-2019



Source: Nebraska DHHS, 2014-2019

In 2019, 92.0% of adults in Nebraska reported that it was wrong or very wrong for individuals 21 years and older to provide alcohol for people under 21 years of age (*Figure 30*), yet 4.1% had allowed underage youth to drink alcohol on their property in the past 12-months.

Figure 30. Percentage of Nebraska adults reporting wrong or very wrong for individuals 21 years and older to provide alcohol for people under 21 years, Nebraska Community Alcohol Opinion Survey, 2014-2019



Source: Nebraska DHHS, 2014-2019

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TOBACCO

INTRODUCTION

Tobacco is the general term for any product produced from cured leaves of the tobacco plant, known as *Nicotiana*.¹ Stimulant alkaloid nicotine and harmful alkaloids are ingredients present in tobacco that can lead to addiction. The most common ways of tobacco consumption are by smoking, chewing, or sniffing. Smoked tobacco products include cigarettes, cigars, bidis, kreteks, and pipes or hookahs. Chewing tobacco, snuff, dip, and snus comprise chewed tobacco products. Snuff is the form of tobacco that can also be sniffed.

Nicotine is easily absorbed into the blood and stimulates the central nervous system and activates the brain's reward circuit. Although nicotine is addictive, the harmful health effects of tobacco use are due to other chemicals that are present in tobacco products. Tobacco smoking has been associated with chronic bronchitis, emphysema, diabetes, pneumonia, lung cancer, and other cancers. It is also known to increase the risk of heart diseases and stroke. Smokeless tobacco is particularly linked to the risk of oral cancers. Furthermore, those with mental illness are especially at risk because they are more likely to use tobacco products, which can temporarily mask the negative symptoms of mental health disorder and inhibit the effectiveness of certain medications for behavioral health conditions.² Additionally, secondhand exposure to tobacco smoke can also lead to lung cancer and heart diseases.¹

PREVALENCE

Cigarette Use

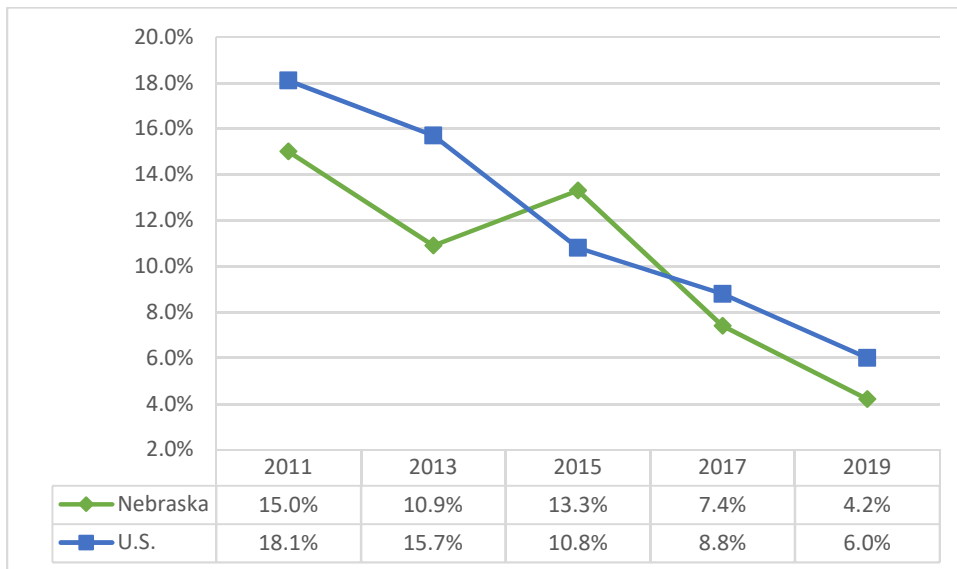
The 2019 Youth Risk Behavior Surveillance System³ (YRBSS) reported that 4.2% (3.0-5.8) of Nebraska high school students (9th to 12th grade) smoked cigarettes in the past month (current use) (*Figure 1*). This estimate was similar compared to the national estimate of 6.0% (5.0-7.2). In Nebraska, females as compared to males and 11th and 12th graders as compared to 9th and 10th graders had higher prevalence of current cigarette smoking (*Table 1*).

Table 1. Percentage of Nebraska and U.S. high school students reporting current cigarette smoking, Youth Risk Behavior Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|---------------|--------------|----------|
| Total | 4.2% | 6.0% |
| Gender | | |
| Male | 3.3 | 6.9 |
| Female | 4.8 | 4.9 |
| Grade | | |
| 9th | 3.1 | 3.8 |
| 10th | 3.5 | 5.2 |
| 11th | 3.8 | 5.9 |
| 12th | 5.8 | 9.0 |

Source: CDC, 2019

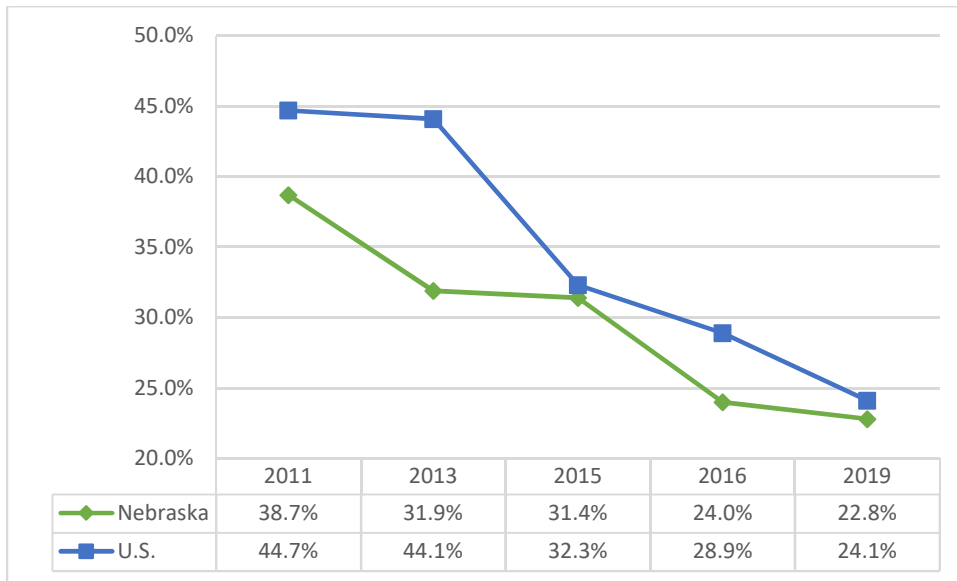
Figure 1. Percentage of Nebraska and U.S. high school students reporting current cigarettes smoking, Youth Risk Behavior Surveillance System, 2011-2019



Source: CDC, 2011-2019

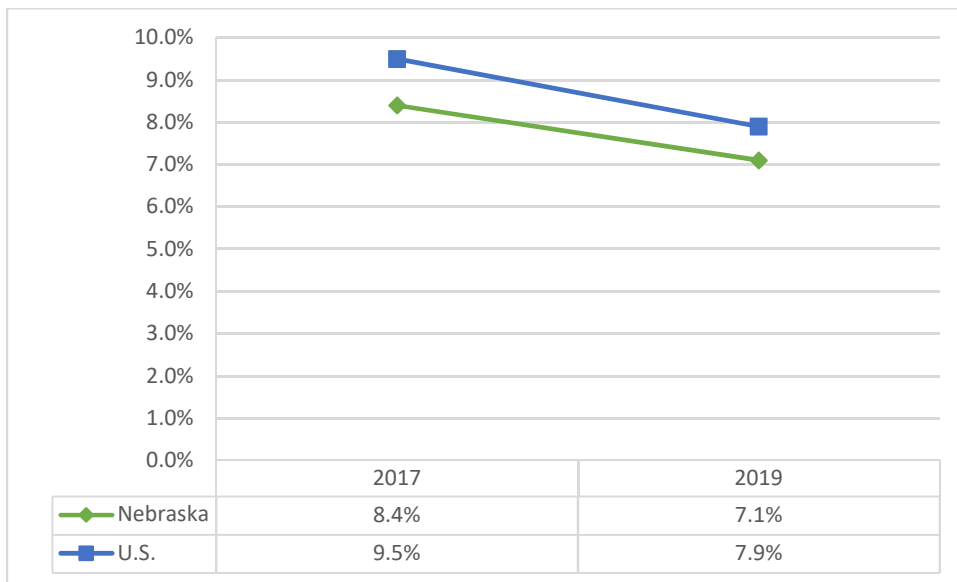
Additionally, 22.8% (19.7-26.2) of Nebraska high school students and 24.1% (21.3–27.0) of U.S. high school students reported that they had ever tried cigarettes (*Figure 2*). Among those who reported that they ever tried cigarettes, 7.1% (5.76-8.79) of Nebraska high school students had their first cigarette before the age of 13 (*Figure 3*). This was similar to the national estimate of 7.9% (6.74-9.13).

Figure 2. Percentage of Nebraska and U.S. high school students reporting ever tried cigarette smoking, Youth Risk Behavior Surveillance System, 2011-2019



Source: CDC, 2011-2019

Figure 3. Percentage of Nebraska and U.S. high school students reporting trying cigarette smoking before age 13, Youth Risk Behavior Surveillance System, 2017-2019



Source: CDC, 2017-2019

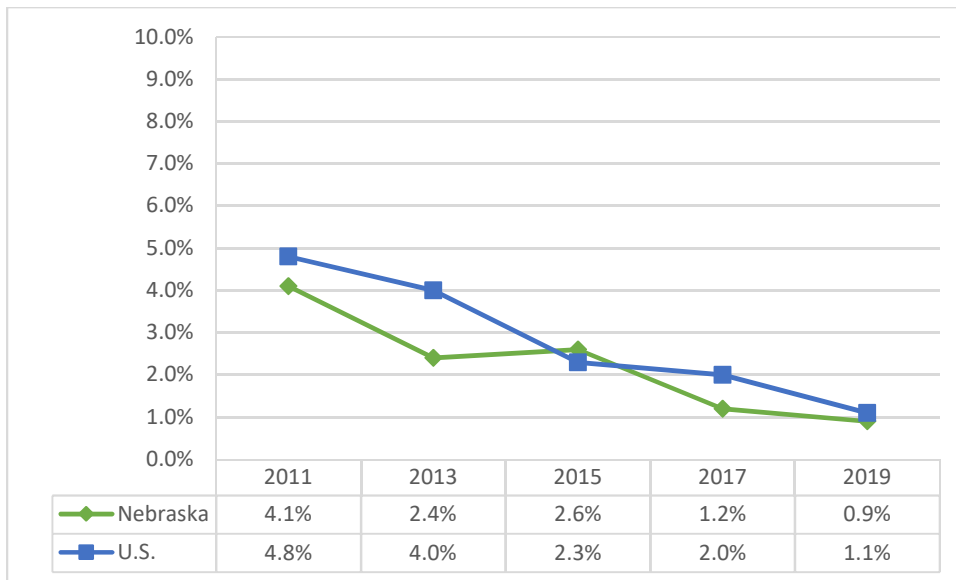
In 2019, 0.9% (0.4-1.9) of Nebraska high school students reported that they smoked cigarettes daily (*Figure 4*) and 1.2% (0.6-2.4) smoked cigarettes frequently (on 20 or more days during the 30 days before survey) (*Figure 5*). Male high school students were twice as likely to smoke cigarettes daily as compared to female high school students, and the highest prevalence of daily cigarette smoking was among 12th graders (*Table 2*). However, frequent cigarette smoking prevalence was similar between males and females, and across grades (*Table 3*).

Table 2. Percentage of Nebraska and U.S. high school students reporting daily cigarette smoking, Youth Risk Behavior Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|---------------|--------------|----------|
| Total | 0.9 | 1.1 |
| Gender | | |
| Male | 1.3 | 1.3 |
| Female | 0.4 | 0.9 |
| Grade | | |
| 9th | 0.7 | 0.6 |
| 10th | 0.8 | 1.0 |
| 11th | 0.8 | 1.0 |
| 12th | 1.3 | 1.7 |

Source: CDC, 2019

Figure 4. Percentage of Nebraska and U.S. high school students reporting daily cigarette smoking, Youth Risk Behavior Surveillance System, 2011-2019



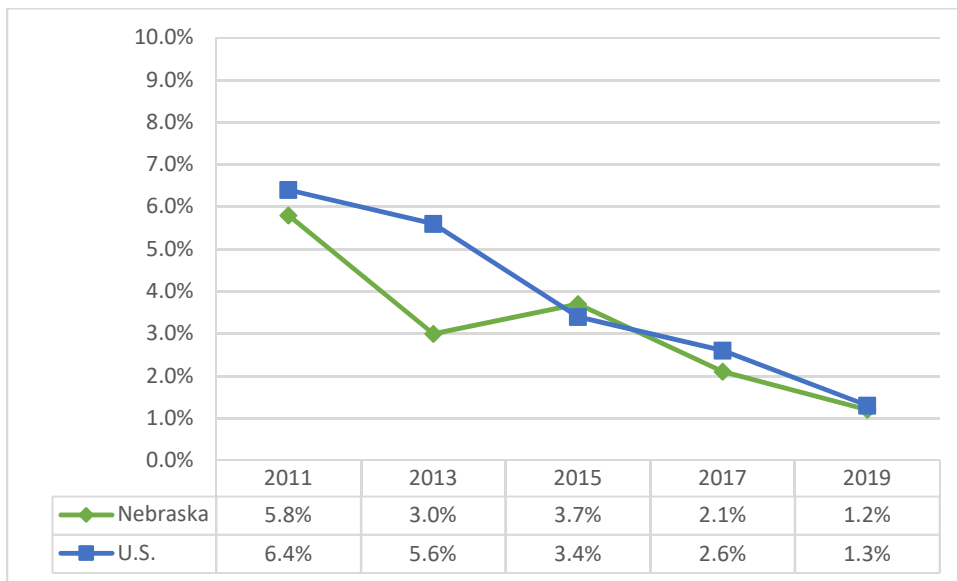
Source: CDC, 2011-2019

Table 3. Percentage of Nebraska and U.S. high school students reporting frequent cigarette smoking, Youth Risk Behavior Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|---------------|--------------|----------|
| Total | 1.2 | 1.3 |
| Gender | | |
| Male | 1.4 | 1.4 |
| Female | 1.0 | 1.2 |
| Grade | | |
| 9th | 1.3 | 0.7 |
| 10th | 1.1 | 1.2 |
| 11th | 1.2 | 1.1 |
| 12th | 1.3 | 2.1 |

Source: CDC, 2019

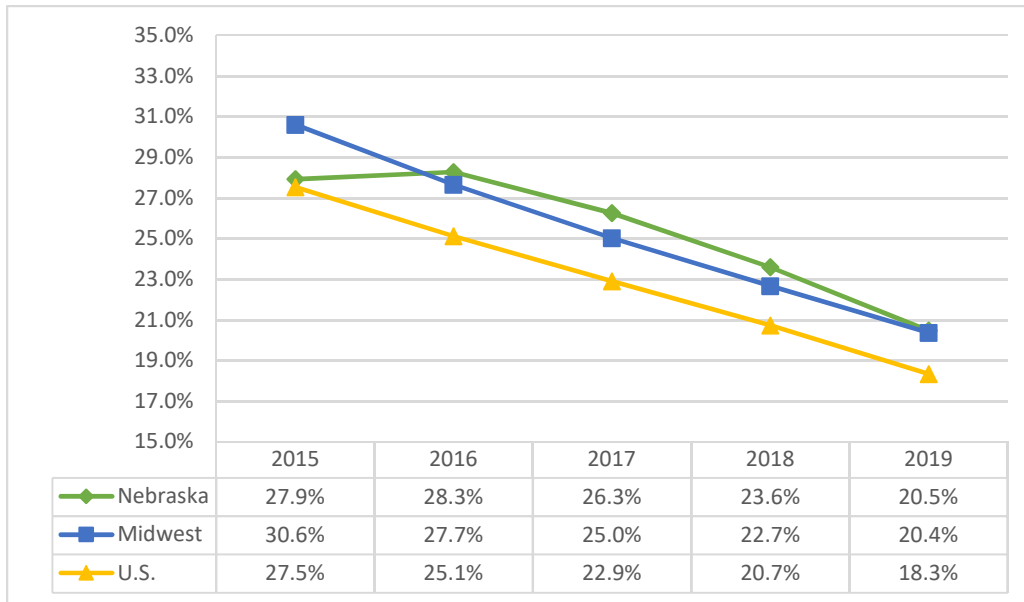
Figure 5. Percentage of Nebraska and U.S. high school students reporting frequent cigarette smoking, Youth Risk Behavior Surveillance System, 2011-2019



Source: CDC, 2011-2019

According to the National Survey on Drug Use and Health⁴ (NSDUH), in 2019, 20.5% (17.4-23.9) of Nebraska young adults (18-25 years) currently smoked cigarettes, which was similar to both the national [18.3% (17.8-18.9)] and the Midwest [20.4% (19.4-21.4)] estimates (*Figure 6*).

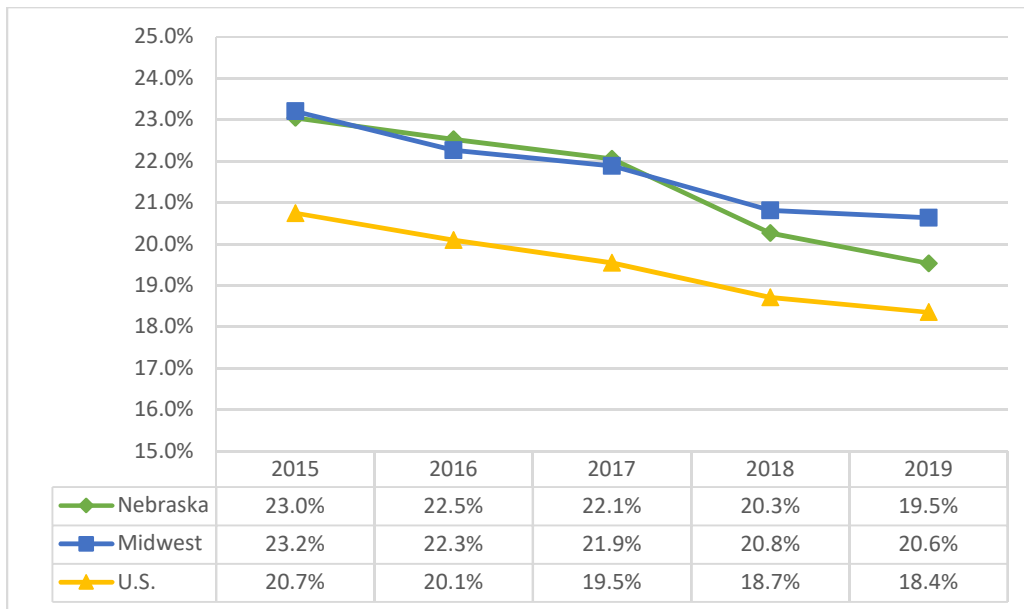
Figure 6. Percentage of Nebraska, Midwest, and U.S. young adults reporting current cigarette smoking, National Survey on Drug Use and Health, 2015-2019



Source: SAMHSA, 2015-2019

In 2019, 19.5% (17.1-22.2) of Nebraska adults (26 years and above) reported that they currently smoked cigarettes (*Figure 7*). This estimate was similar compared to that of the Midwest [20.6% (19.9-21.4)] but higher than the U.S. [18.4% (17.9-18.8)].

Figure 7. Percentage of Nebraska, Midwest, and U.S. adults reporting current cigarette smoking, National Survey on Drug Use and Health, 2015-2019



Source: SAMHSA, 2015-2019

E-cigarette Use or Electronic Vapor Product (EVP)

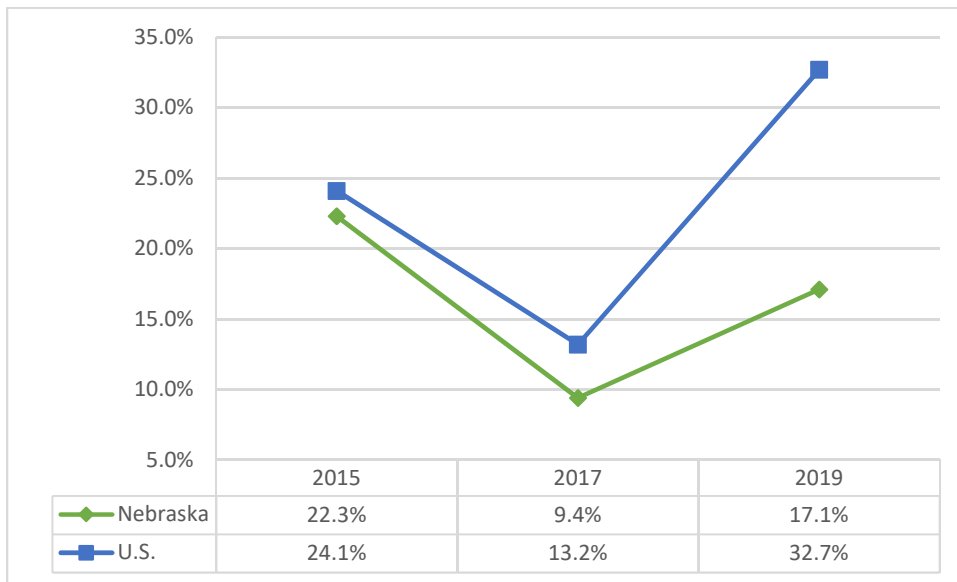
According to YRBSS, 17.1% (13.6-21.2) of Nebraska high school students reported current use of an EVP in 2019 (Figure 8). The national estimate was significantly higher [32.7% (30.7-34.8)]. The prevalence of current EVP use was higher among males as compared to females and increased with grade (Table 4).

Table 4. Percentage of Nebraska and U.S. high school students reporting current electronic vapor product use, Youth Risk Behavior Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|---------------|--------------|----------|
| Total | 17.1 | 32.7 |
| Gender | | |
| Male | 17.1 | 32.0 |
| Female | 16.7 | 33.5 |
| Grade | | |
| 9th | 7.7 | 25.0 |
| 10th | 19.0 | 30.1 |
| 11th | 18.5 | 35.9 |
| 12th | 21.9 | 40.4 |

Source: CDC, 2019

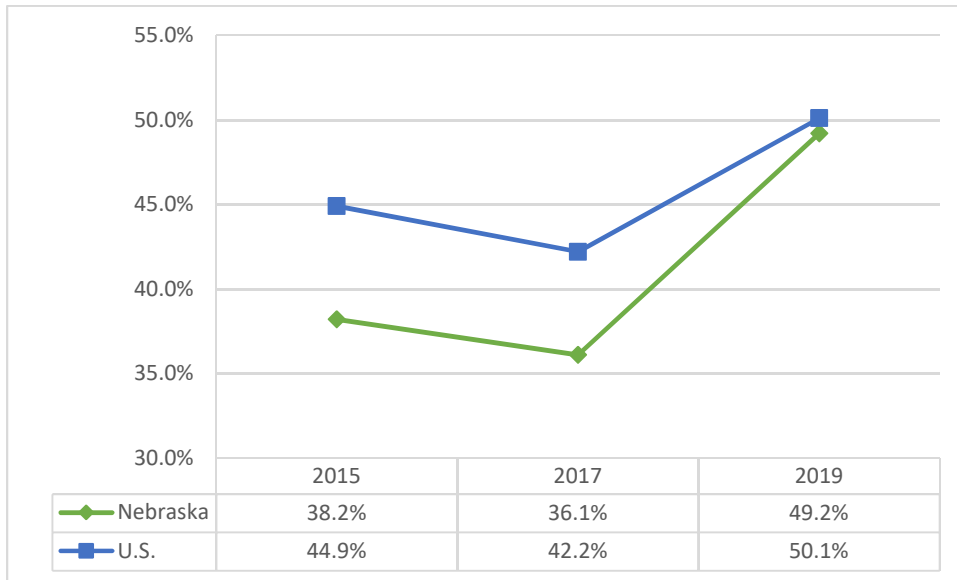
Figure 8. Percentage of Nebraska and U.S. high school students reporting current electronic vapor product use, Youth Risk Behavior Surveillance System, 2015-2019



Source: CDC, 2015-2019

In 2019, 49.2% (44.7-53.7) of Nebraska high school students had ever used EVPs (*Figure 9*). U.S. high school students reported similar levels of EVP use [50.1% (48.1-52.2)].

Figure 9. Percentage of Nebraska and U.S. high school students reporting ever used an electronic vapor product, Youth Risk Behavior Surveillance System, 2015-2019



Source: CDC, 2015-2019

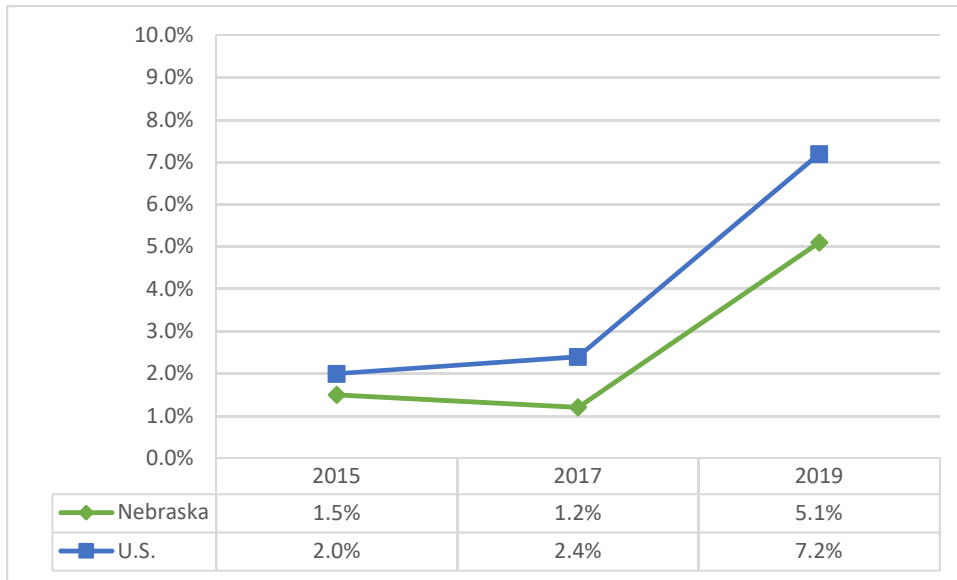
In Nebraska, 5.1% (3.4-7.5) of high school students used EVPs daily compared to 7.2% (6.2-8.3) of U.S. high school students (*Figure 10*) (*Table 5*). Additionally, Nebraska high school students had significantly lower prevalence [6.5% (4.6-9.0)] of frequent EVP use as compared to U.S. high school students [10.7% (9.5-11.9)] (*Figure 11*) (*Table 6*).

Table 5. Percentage of Nebraska and U.S. high school students reporting daily electronic vapor product use, Youth Risk Behavior Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|---------------|--------------|----------|
| Total | 5.1 | 7.2 |
| Gender | | |
| Male | 5.4 | 7.9 |
| Female | 4.7 | 6.4 |
| Grade | | |
| 9th | 2.2 | 3.6 |
| 10th | 4.0 | 5.4 |
| 11th | 7.2 | 8.3 |
| 12th | 6.8 | 12.0 |

Source: CDC, 2019

Figure 10. Percentage of Nebraska and U.S. high school students reporting daily electronic vapor product use, Youth Risk Behavior Surveillance System, 2015-2019



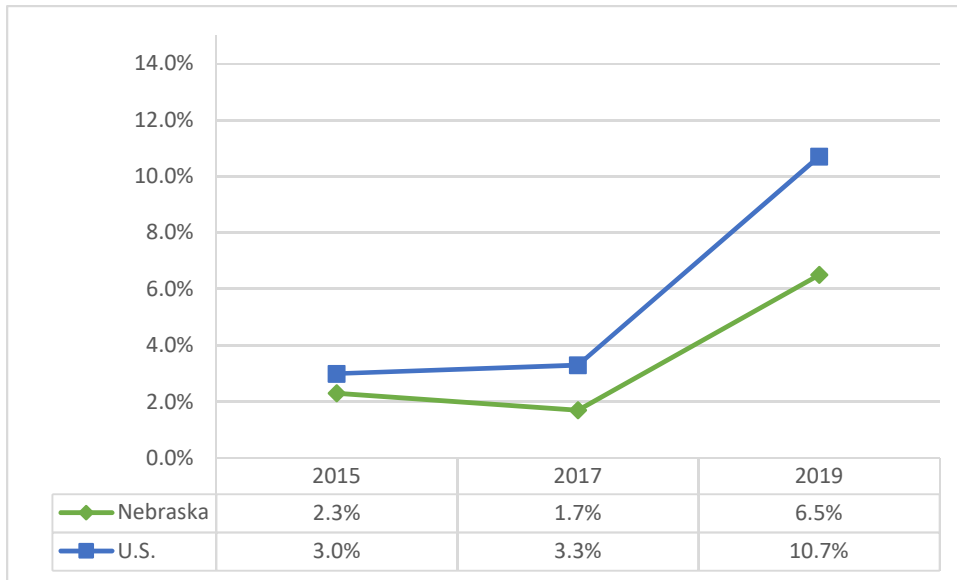
Source: CDC, 2015-2019

Table 6. Percentage of Nebraska and U.S. high school students reporting frequent electronic vapor product use, Youth Risk Behavior Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|---------------|--------------|----------|
| Total | 6.5 | 10.7 |
| Gender | | |
| Male | 7.4 | 11.6 |
| Female | 5.4 | 9.7 |
| Grade | | |
| 9th | 2.6 | 6.2 |
| 10th | 4.9 | 7.7 |
| 11th | 10.0 | 12.5 |
| 12th | 8.4 | 16.8 |

Source: CDC, 2019

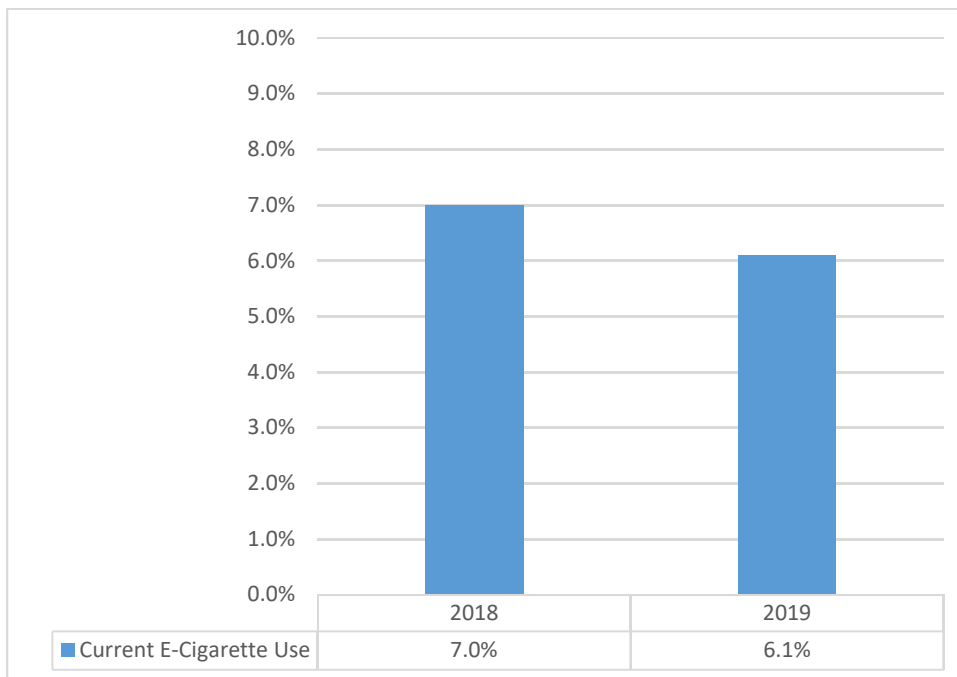
Figure 11. Percentage of Nebraska and U.S. high school students reporting frequent electronic vapor product use, Youth Risk Behavior Surveillance System, 2015-2019



Source: CDC, 2015-2019

The 2019 Nebraska Adult Tobacco Survey⁵ (ATS) reported that 6.1% of adults (18 years and above) in Nebraska currently used e-cigarettes (*Figure 12*).

Figure 12. Percentage of Nebraska adults reporting current e-cigarette use, Adult Tobacco Survey, 2018-2019



Source: Nebraska DHHS, 2018-2019

Smokeless Tobacco Use

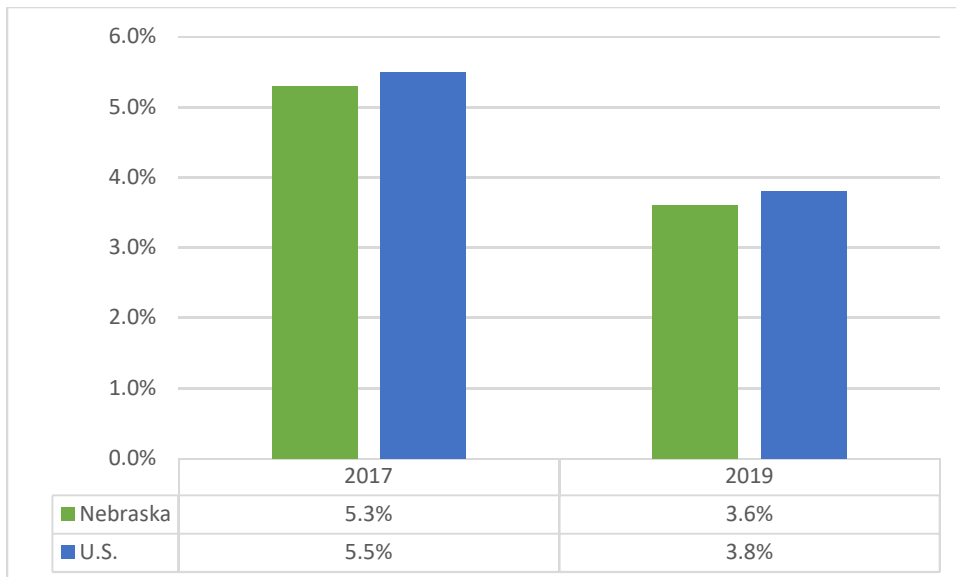
In 2019, 3.6% (2.5-5.1) of Nebraska high school students reported current use of smokeless tobacco products (*Figure 13*). U.S. high school students reported similar levels of current use [3.8% (3.17-4.59)]. Compared to females, males were five times as likely to use smokeless tobacco products; 10th and 12th graders had the highest prevalence (*Table 7*).

Table 7. Percentage of Nebraska and U.S. high school students reporting current smokeless tobacco product use, Youth Risk Behavior Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|---------------|--------------|----------|
| Total | 3.6 | 3.8 |
| Gender | | |
| Male | 5.7 | 5.8 |
| Female | 1.1 | 1.6 |
| Grade | | |
| 9th | 2.9 | 2.0 |
| 10th | 4.5 | 3.6 |
| 11th | 1.8 | 3.9 |
| 12th | 4.6 | 5.5 |

Source: CDC, 2019

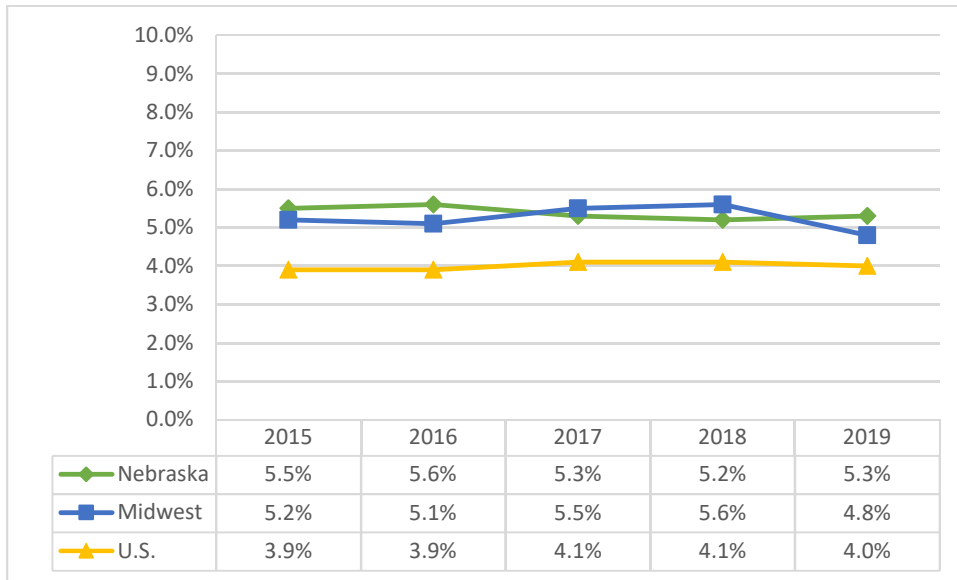
Figure 13. Percentage of Nebraska and U.S. high school students reporting current smokeless tobacco product use, Youth Risk Behavior Surveillance System, 2017-2019



Source: CDC, 2017-2019

The Behavioral Risk Factor Surveillance System⁶ (BRFSS) reported that 5.3% (4.5-6.0) of Nebraska adults (18 years and above) used smokeless tobacco products in 2019 (*Figure 14*).

Figure 14. Percentage of Nebraska, Midwest, and U.S. adults reporting current smokeless tobacco product use, Behavioral Risk Factor Surveillance System, 2015-2019



Source: CDC, 2015-2019

Cigar Use

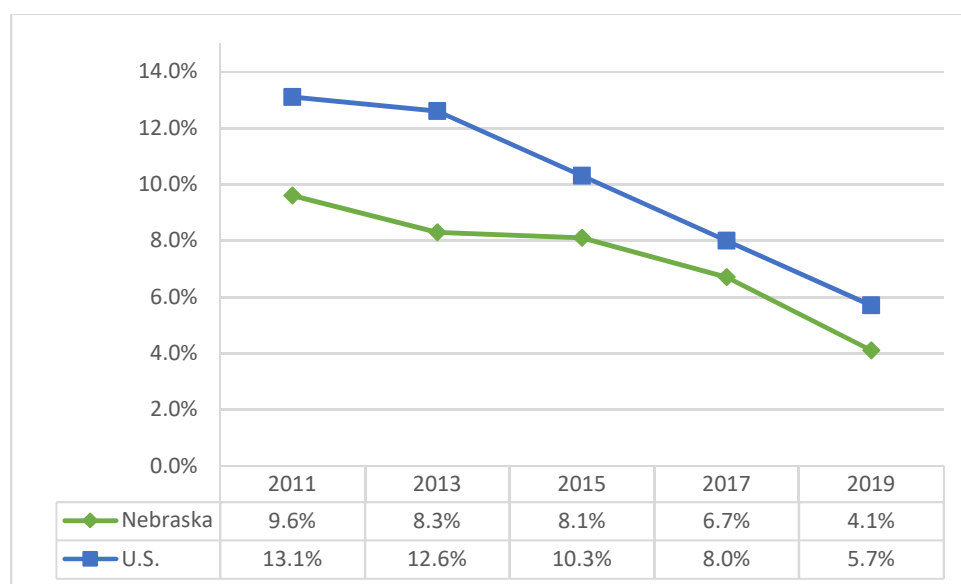
According to the 2019 YRBSS, 4.1% (2.9-5.8) of Nebraska high school students reported that they currently smoked cigars (including cigars, cigarillos, and little cigars). U.S. high school students reported similar levels of current use [5.7% (4.8-6.7)] (*Figure 15*). The prevalence was higher among males as compared to females, and higher among 11th and 12th graders compared to 9th and 10th graders (*Table 8*).

Table 8. Percentage of Nebraska and U.S. high school students reporting current cigar smoking, Youth Risk Behavior Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|---------------|--------------|----------|
| Total | 4.1 | 5.7 |
| Gender | | |
| Male | 4.9 | 7.4 |
| Female | 2.7 | 3.8 |
| Grade | | |
| 9th | 2.3 | 3.8 |
| 10th | 3.6 | 4.7 |
| 11th | 4.3 | 6.0 |
| 12th | 5.1 | 8.5 |

Source: CDC, 2019

Figure 15. Percentage of Nebraska and U.S. high school students reporting current cigar smoking, Youth Risk Behavior Surveillance System, 2011-2019



Source: CDC, 2011-2019

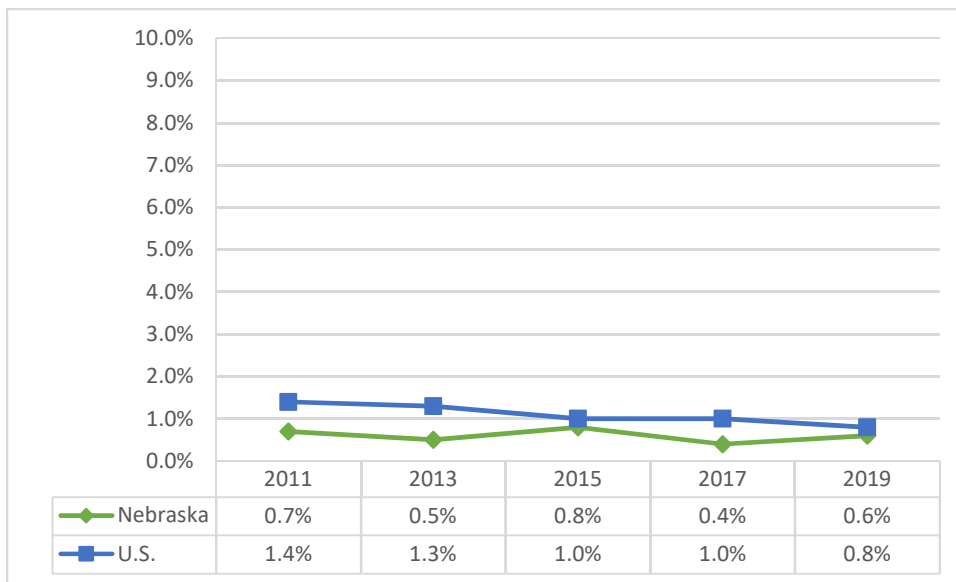
Among Nebraska high school students in 2019, 0.6% (0.2-1.5) reported daily cigar smoking and 0.9% (0.4-1.7) reported frequent cigar smoking. Daily- and frequent-use rates were similar among American high school students (*Figures 16 and 17*). Males were twice as likely to smoke cigars daily as compared to females, and the highest prevalence was among 9th and 10th graders (*Table 9*). Frequent cigar smoking was more prevalent among males as compared to females (*Table 10*).

Table 9. Percentage of Nebraska and U.S. high school students reporting daily cigar smoking, Youth Risk Behavior Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|---------------|--------------|----------|
| Total | 0.6 | 0.8 |
| Gender | | |
| Male | 0.9 | 1.1 |
| Female | 0.4 | 0.4 |
| Grade | | |
| 9th | 0.7 | 0.4 |
| 10th | 1.1 | 0.6 |
| 11th | 0.2 | 0.8 |
| 12th | 0.2 | 1.4 |

Source: CDC, 2019

Figure 16. Percentage of Nebraska and U.S. high school students reporting daily cigar smoking, Youth Risk Behavior Surveillance System, 2011-2019



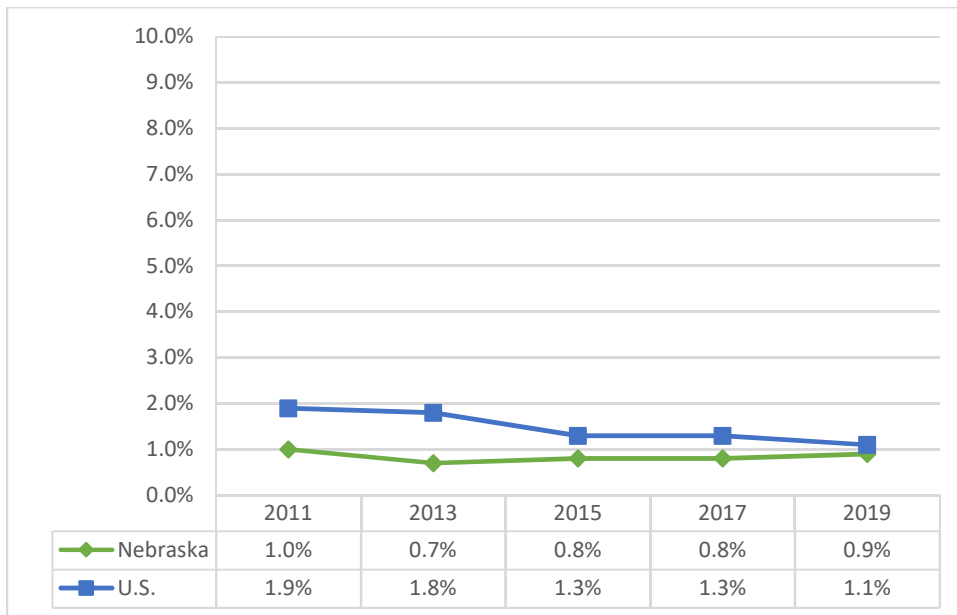
Source: CDC, 2011-2019

Table 10. Percentage of Nebraska and U.S. high school students reporting frequent cigar smoking, Youth Risk Behavior Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|---------------|--------------|----------|
| Total | 0.9 | 1.1 |
| Gender | | |
| Male | 1.2 | 1.5 |
| Female | 0.5 | 0.5 |
| Grade | | |
| 9th | 0.7 | 0.5 |
| 10th | 1.1 | 0.7 |
| 11th | 0.4 | 1.1 |
| 12th | 1.0 | 1.8 |

Source: CDC, 2019

Figure 17. Percentage of Nebraska and U.S. high school students reporting frequent cigar smoking, Youth Risk Behavior Surveillance System, 2011-2019

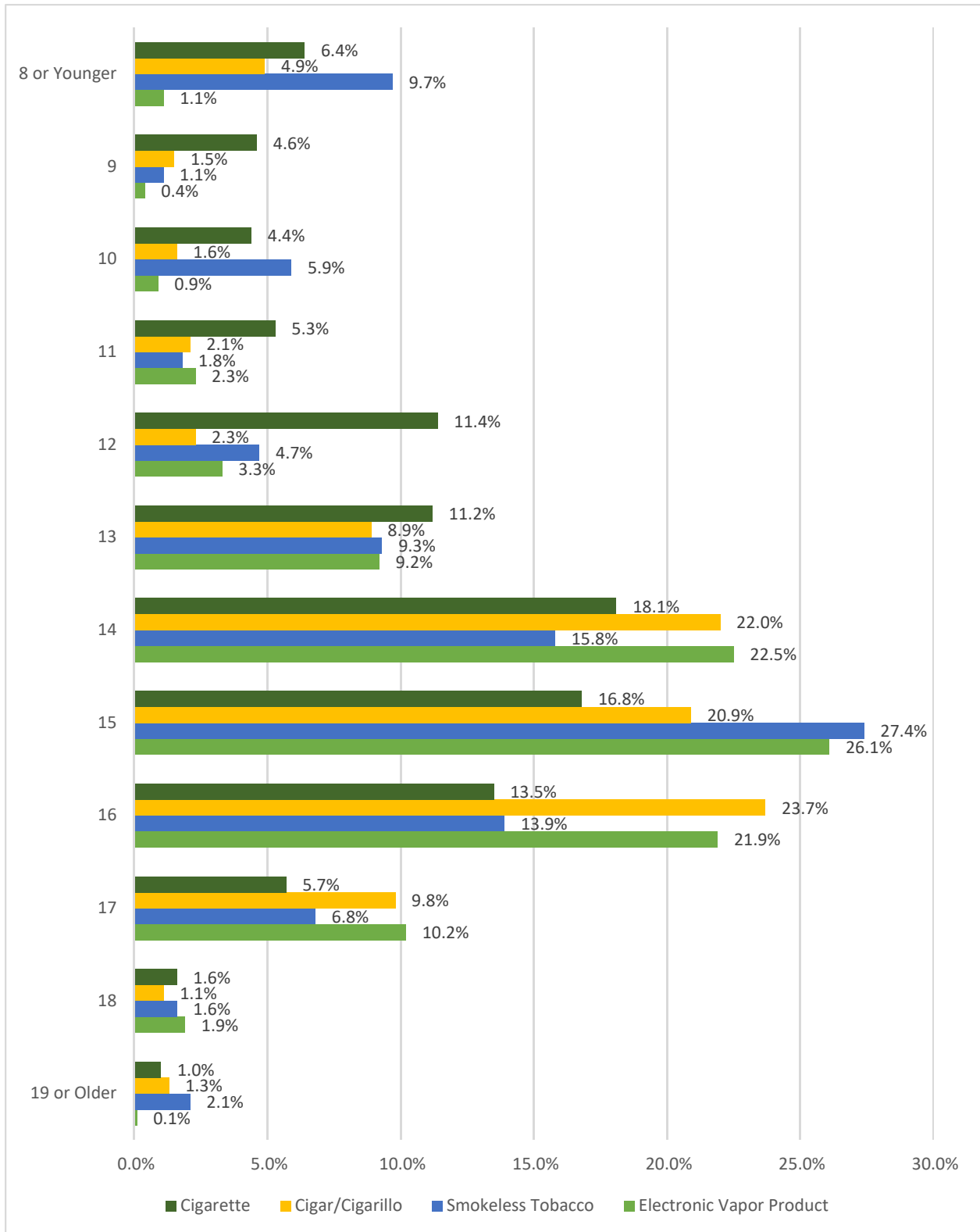


Source: CDC, 2011-2019

General Tobacco Use

In the 2019 Nebraska Youth Tobacco Survey⁷ (YTS), the most common reported ages that students (6th to 12th grade) first started using tobacco products are 14 years for cigarettes, 16 years for cigars/cigarillos, 15 years for smokeless tobacco, and 15 years for electronic vapor products (*Figure 18*).

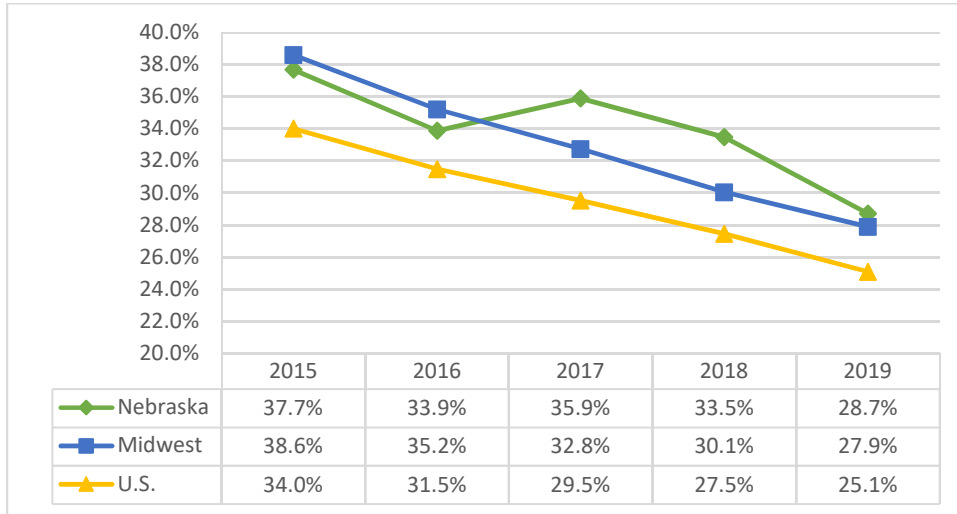
Figure 18. Age of first tobacco use among Nebraska students by tobacco product, Youth Tobacco Survey, Nebraska, 2019



Source: Nebraska DHHS, 2019

In 2019, 28.7% (25.2-32.5) of Nebraska young adults reported current use of tobacco products, which was similar to U.S. [25.1% (24.4-25.7)] and Midwest [27.9% (26.8-29.0)] young adults (*Figure 19*).

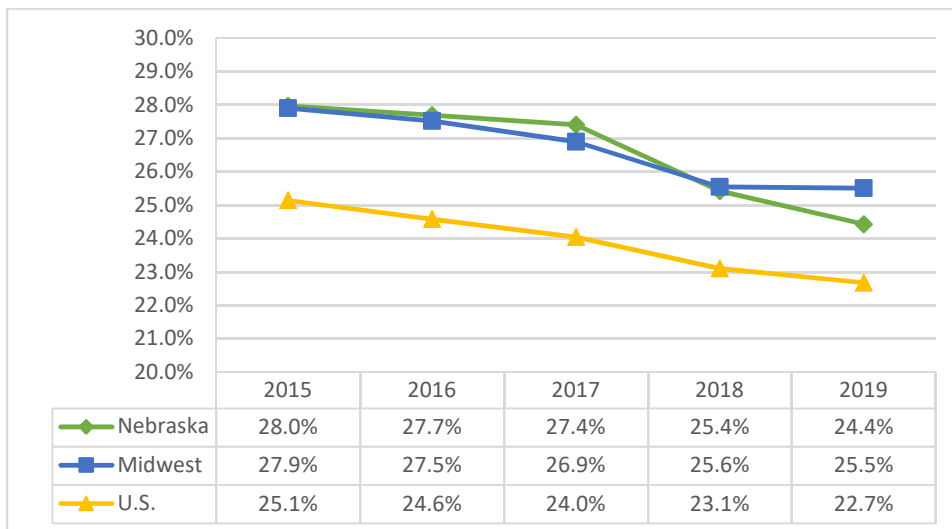
Figure 19. Percentage of Nebraska, Midwest, and U.S. young adults reporting current tobacco product use, National Survey on Drug Use and Health, 2015-2019



Source: SAMHSA, 2015-2019

Among Nebraska adults in 2019, 24.4% (21.7-27.4) reported current use of tobacco products (*Figure 20*). Adults in the U.S. [22.7% (22.2-23.1)] and Midwest [25.1% (24.7-26.4)] reported similar levels of current use.

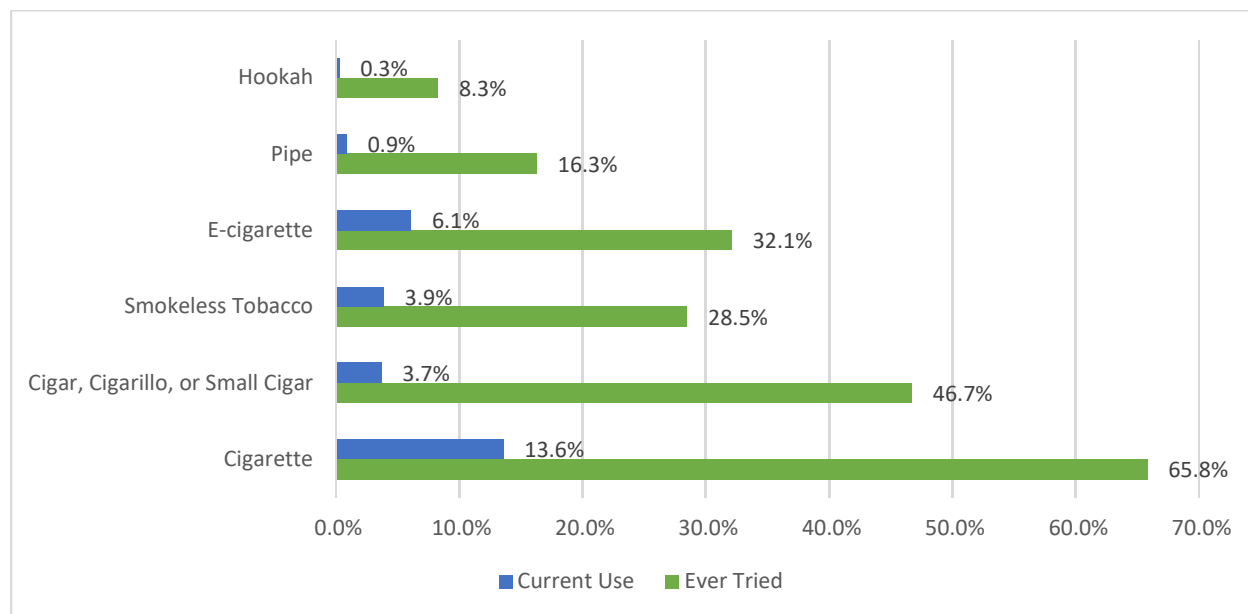
Figure 20. Percentage of Nebraska, Midwest, and U.S. adults reporting current tobacco product use, National Survey on Drug Use and Health, 2015-2019



Source: SAMHSA, 2015-2019

According to the 2019 ATS, the most commonly tried tobacco products among Nebraska adults were cigarettes (65.8%) and cigars (46.7%). The products with the highest current use were cigarettes (13.6%) and e-cigarettes (6.1%) (*Figure 21*).

Figure 21. Percentage of Nebraska adults reporting trying tobacco products at least once, Adult Tobacco Survey, Nebraska, 2019



Source: Nebraska DHHS, 2019

CONSEQUENCES

Tobacco use can lead to disease and disability, producing harmful effects on nearly every organ in the human body. According to the Centers for Disease Control and Prevention (CDC), more than 16 million people in the United States are currently living with a disease that can be attributed to tobacco smoking.⁸ Cigarette smoking is the leading cause of preventable deaths in the U.S. (480,000 deaths annually). The diseases caused due to tobacco smoking include cancer, heart disease, stroke, lung diseases, diabetes, and chronic obstructive pulmonary disease (COPD). Tobacco smoking is also known to increase the risk for tuberculosis, certain eye diseases, and problems of the immune system, including rheumatoid arthritis. Reports suggest that tobacco smoking increases the risk for coronary disease by 2 to 4 times; stroke by 2 to 4 times; COPD by 12 to 13 times; and, for lung cancer by more than 25 times.⁹

Tobacco smoking causes approximately 90% of all lung cancer deaths and 80% of all deaths from COPD.⁸ The smoking-attributable mortality rate estimates the amount of deaths associated with tobacco use. In 2017, the smoking-attributable mortality rates were 862 for heart disease,

1,701 for cancer, 964 for chronic lower respiratory disease, 73 for diabetes, and 88 for pneumonia or flu (*Table 11*).

Table 11. Nebraska annual deaths and smoking-attributable mortality rate, Center for Disease Control and Prevention, 2017

| Disease | Total Deaths | Smoking-attributable mortality | Attributable fraction (%) |
|-----------------------------------|--------------|--------------------------------|---------------------------|
| Heart Disease | 3,581 | 862 | 24.1 |
| Cancer | 3,502 | 1701 | 48.6 |
| Chronic Lower Respiratory Disease | 1,224 | 964 | 78.8 |
| Diabetes | 575 | 73 | 12.7 |
| Pneumonia/Flu | 393 | 88 | 22.5 |

Source: CDC, 2017

Additionally, secondhand smoke exposure is responsible for approximately 41,000 deaths among non-smoking adults and 400 deaths among infants annually in the U.S.⁸ Among adults, secondhand smoke exposure can cause stroke, lung cancer, and coronary heart disease. Among children, exposure to secondhand smoke can put them at increased risks for sudden infant death syndrome, acute respiratory infections, middle ear disease, more severe asthma, respiratory symptoms, and slowed lung growth.² According to the 2014 Surgeon General’s report, 4.6% of lung cancer deaths are attributed to secondhand smoking and 8.2% of coronary heart disease deaths are attributed to secondhand smoking.⁹

In recent years, electronic vapor products (such as e-cigarettes, pods, mods, vape pens) have gained popularity particularly among adolescents and young adults.¹⁰ Although scientists are still learning about the long-term health effects of electronic vapor products, there is scientific consensus that nicotine (found in 99% of e-cigarettes) is unsafe for those under 25 years of age. Using nicotine in adolescence can harm the part of the brain that controls attention, learning, mood, and impulse control. Additionally, it may increase the risk for future use and/or addiction to other drugs. Inhaled and exhaled aerosols from EVPs may contain potentially harmful substances, including nicotine, ultrafine particles, volatile organic compounds, cancer-causing chemicals, and heavy metals.

Beyond the negative health impacts of tobacco use, there are also heavy economic costs. According to estimates from the CDC, smoking-related illnesses in the United States cost more than \$300 billion annually – approximately \$170 billion for adult direct medical care and \$156 billion in lost productivity, including \$5.6 billion in lost productivity due to secondhand smoke

exposure.¹¹ In Nebraska, the annual healthcare costs directly caused by cigarette smoking were \$795 million (excluding secondhand smoke, smoke-caused fires, workplace productivity losses, and property damage) (Table 12).¹²

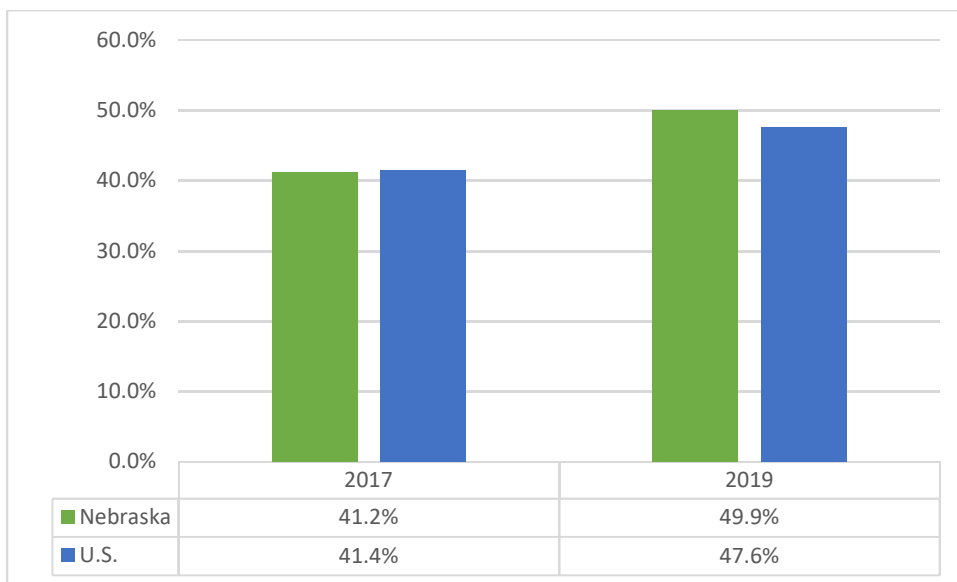
Table 12. Smoking-related monetary costs in Nebraska, 2020

| | |
|---|---------------------|
| Annual healthcare costs in Nebraska directly caused by smoking | \$795 million |
| Medicaid costs caused by smoking in Nebraska | \$162.3 million |
| Residents’ state and federal tax burden from smoking-caused government expenditures | \$710 per household |
| Smoking-caused productivity losses in Nebraska | \$605.5 million |

Source: Tobacco Free Kids, 2020

Quitting tobacco smoking, especially early-on, reduces many of the associated health risks.¹³ Within two to five years after quitting, the risk for stroke may reduce to about that of a non-smoker. Within five years, the risks of cancers of the mouth, throat, esophagus, and bladder drop by half, and after a decade of quitting, the risk of dying from lung cancer drops by half.⁸ Among Nebraska high school students who used tobacco in 2019, 49.9% (40.8-59.0) attempted to quit (Figure 22). U.S. high school students reported similar levels [47.6% (45.1-50.1)].

Figure 22. Percentage of Nebraska and U.S. high school tobacco users reporting attempt to quit using all tobacco products, Youth Risk Behavior Surveillance System, 2017-2019



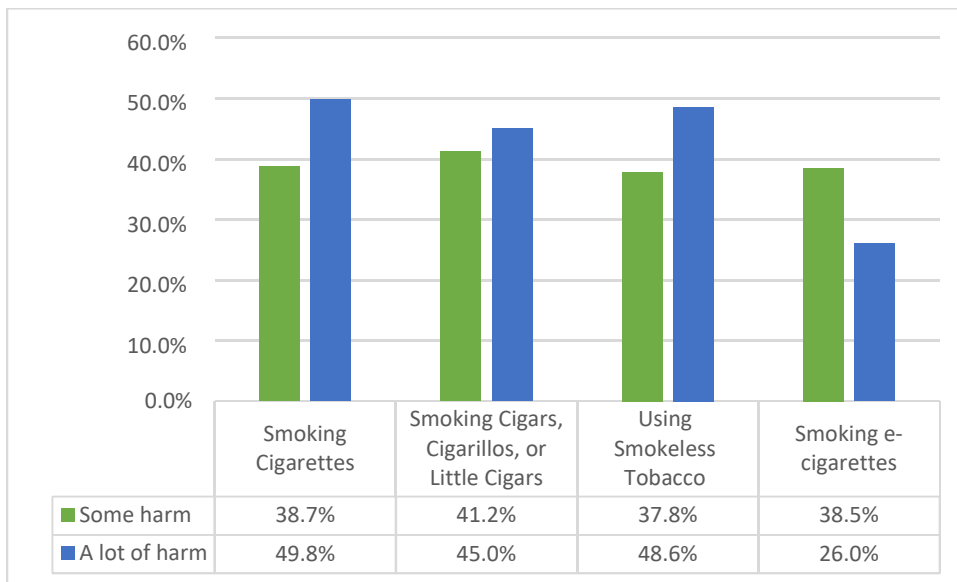
Source: CDC, 2017-2019

PERCEPTIONS AND SOCIAL NORMS

Tobacco initiation often begins during adolescence, a critical developmental period when youth are susceptible to peer influences around tobacco use.¹⁴ Public health messaging has historically targeted this demographic in attempts to elevate perceptions of risk associated with smoking. Indeed, research demonstrates that adolescents with higher levels of associated risk, were less likely to initiate smoking.¹⁵ In contrast, messaging and policies that suggest tobacco use is ubiquitous and attractive may foster an environment that is conducive to early tobacco initiation.

In 2019, YTS reported that 88.5% of Nebraska students believed smoking cigarettes was harmful; 86.2% believed smoking cigars, cigarillos, or little cigars was harmful; 86.4% believed using smokeless tobacco was harmful, and 64.5% believed smoking e-cigarettes was harmful (*Figure 23*).

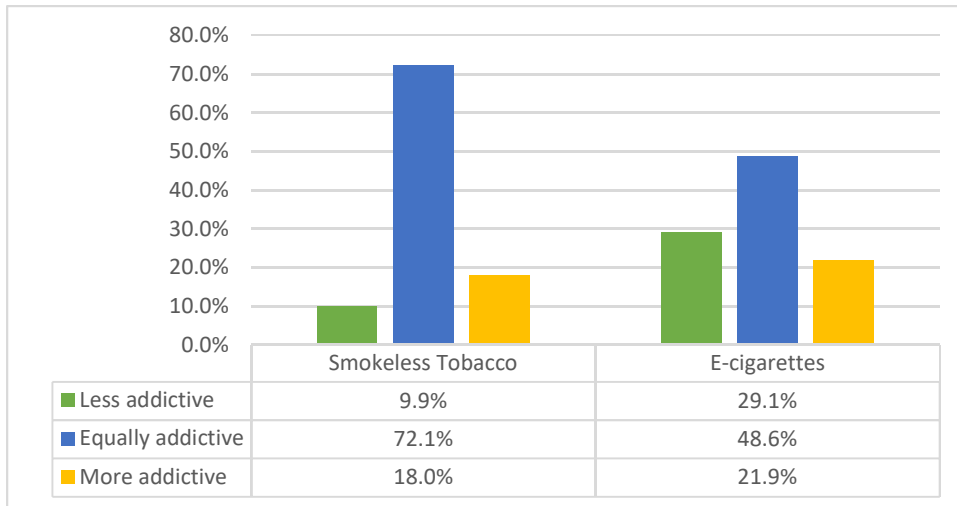
Figure 23. Percentage of Nebraska students perceiving people harm themselves when using tobacco products some days, Nebraska Youth Tobacco Survey, 2019



Source: Nebraska DHHS, 2019

In 2019, 9.9% of students in Nebraska believed smokeless tobacco products are less addictive than cigarettes and 29.1% believed e-cigarettes are less addictive than cigarettes; 72.1% believed smokeless tobacco products are equally addictive to cigarettes and 48.6% believed e-cigarettes are equally addictive to cigarettes. Also, 18.0% believed smokeless tobacco products are more addictive than cigarettes and 21.9% believed e-cigarettes are more addictive than cigarettes (*Figure 24*).

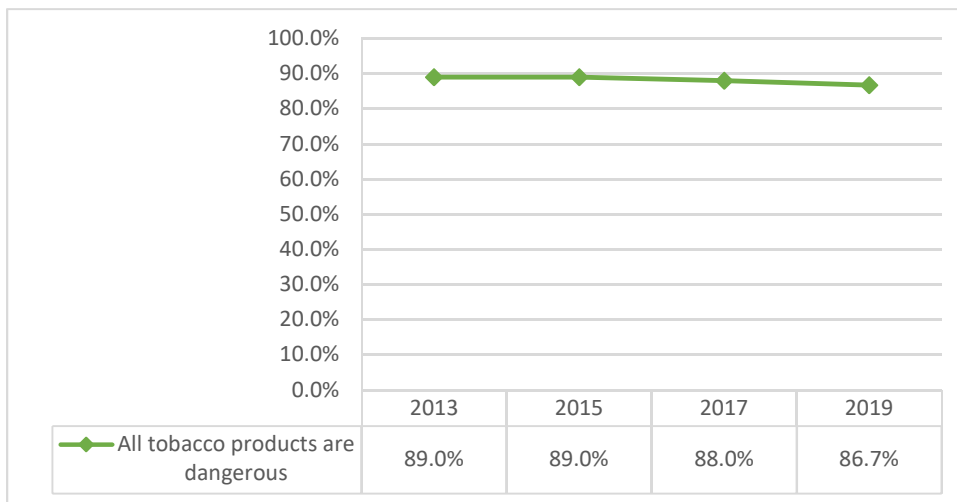
Figure 24. Percentage of Nebraska students reporting how addictive they believed smokeless tobacco and e-cigarettes are compared to cigarettes, Nebraska Youth Tobacco Survey, 2019



Source: Nebraska DHHS, 2019

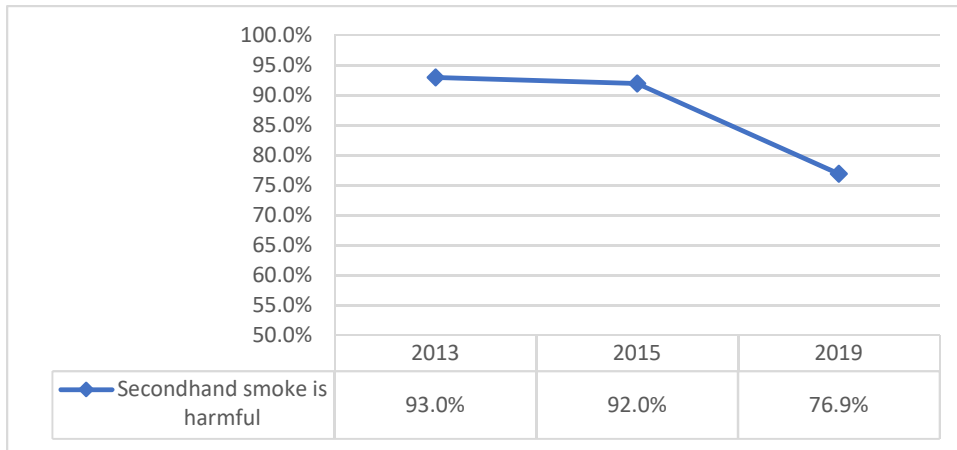
In 2019, 86.7% of students in Nebraska agreed that all tobacco products are dangerous (*Figure 25*) and 76.9% believed secondhand smoke is harmful (*Figure 26*).

Figure 25. Percentage of Nebraska youth reporting agreed or strongly agreed with the statement “all tobacco products are dangerous,” Nebraska Youth Tobacco Survey, 2013-2019



Source: Nebraska DHHS, 2013-2019

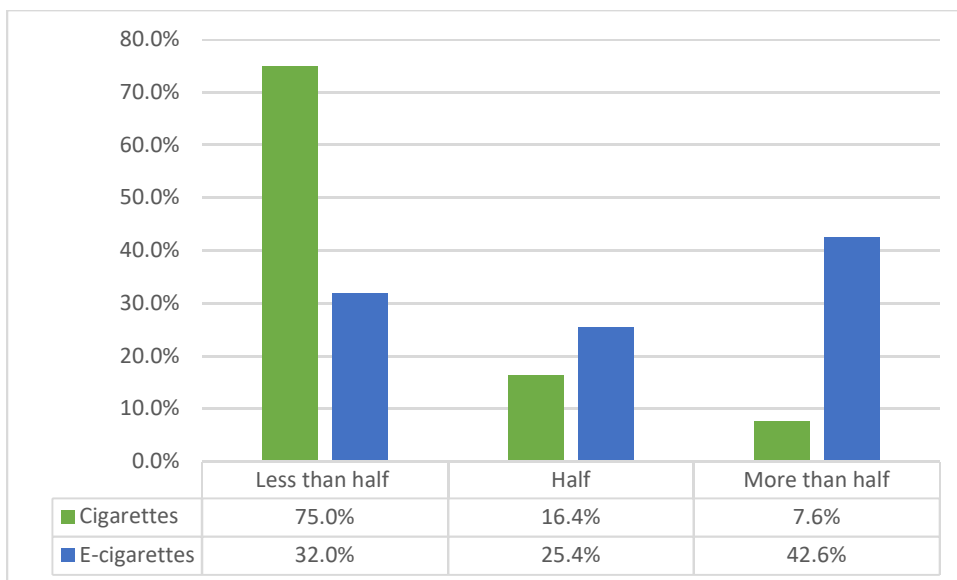
Figure 26. Percentage of Nebraska students reporting believing that secondhand smoke is harmful, Nebraska Youth Tobacco Survey, 2013-2019



Source: Nebraska DHHS, 2013-2019

In 2019, 75.0% of Nebraska students reported that less than half of their respective grade at school smoked cigarettes and 32.0% reported that less than half smoked e-cigarettes. Additionally, 16.4% of students reported that half of their respective grade at school smoked cigarettes and 25.4% reported that half smoked e-cigarettes. Lastly, 7.6% of students reported that more than half of their respective grade at school smoked cigarettes and 42.6% reported that more than half smoked e-cigarettes (*Figure 27*).

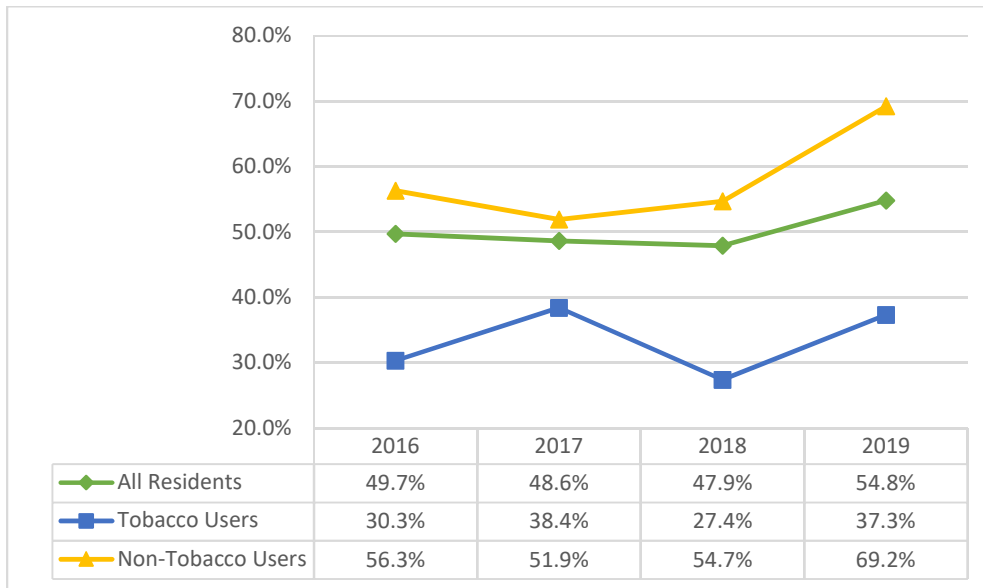
Figure 27. Percentage of Nebraska youth reporting out of every 10 students how many in their grade at school smoked cigarettes or e-cigarettes, Nebraska Youth Tobacco Survey, 2019



Source: Nebraska DHHS, 2019

In 2019, ATS reported that 54.8% of Nebraska adults thought tobacco use is a problem in the community (*Figure 28*). Additionally, 37.3% of tobacco users and 69.2% of non-tobacco users agreed that tobacco use is a problem in the community.

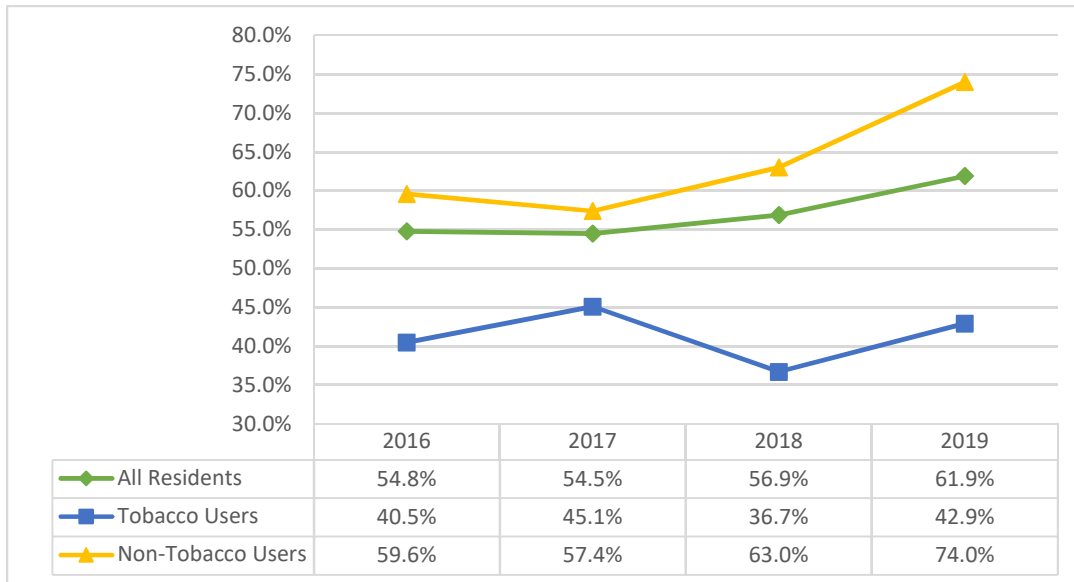
Figure 28. Percentage of Nebraska adults reporting thinking tobacco use is a problem in the community, Nebraska Adult Tobacco Survey, 2016-2019



Source: Nebraska DHHS, 2016-2019

Furthermore, in 2019, 61.9% of Nebraska adults thought tobacco use is a serious problem for teenagers (*Figure 29*); 41.9% of tobacco users and 74.0% of non-tobacco users agreed that tobacco use is a serious problem for teenagers.

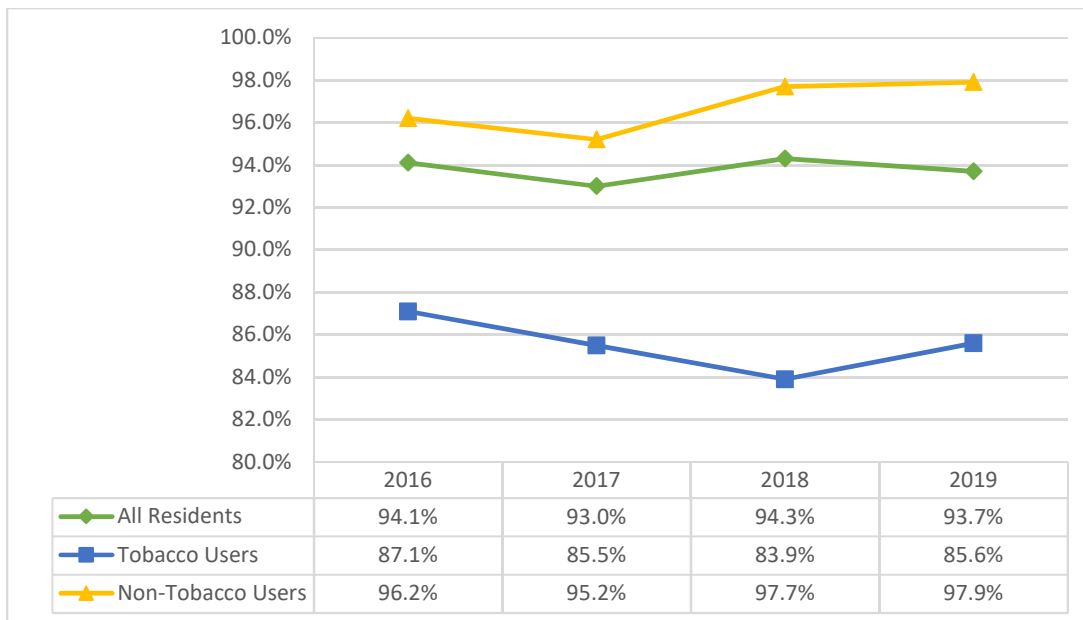
Figure 29. Percentage of Nebraska adults reporting thinking tobacco use is a serious problem for teenagers, Nebraska Adult Tobacco Survey, 2016-2019



Source: Nebraska DHHS, 2016-2019

In 2019, 93.7% of Nebraska adults believed secondhand smoke is harmful (*Figure 30*). Also, 85.6% of tobacco users and 97.9% of non-tobacco users agreed that secondhand smoke is harmful.

Figure 30. Percentage of Nebraska adults reporting thinking secondhand smoke is harmful, Nebraska Adult Tobacco Survey, 2016-2019



Source: Nebraska DHHS, 2016-2019

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MARIJUANA AND ILLICIT DRUGS

INTRODUCTION

Illicit drugs are a group of drugs such as marijuana, opioids, and stimulants that are forbidden by law in most states in the United States. Marijuana is a greenish-gray mixture of dried flowers of the hemp plant, known as *Cannabis sativa*.¹ It contains a psychoactive chemical called delta-9tetrahydrocannabinol (THC) responsible for producing the intoxicating effect. Some common methods of marijuana consumption are by smoking hand-rolled cigarettes (joints), water pipes (bongs), blunts (marijuana rolled in cigar wraps), or mixed into food (edibles). Long-term use of marijuana can lead to addiction, altered brain development, cognitive impairment, and psychotic disorders, among others.²

Opioids are a class of drugs produced from the opium poppy plant, *Papaver somniferum*.³ They work in the brain to provide a variety of effects such as pain relief and feelings of relaxation and euphoria. The most common types of opioids are prescription opioids (*e.g.* OxyContin and Vicodin), synthetic opioids (*e.g.* fentanyl), and illegal drugs (*e.g.* heroin). Prescription opioids are generally safe when taken as prescribed by a healthcare provider. However, regular use can lead to dependence and addiction while high dosage and misuse can result in overdose and death.

Currently, the legality of medical and recreational marijuana varies across states and counties in the U.S, despite being listed as a Schedule 1 drug at the federal level.⁴ Regulatory differences across jurisdictions reflect the terms of marijuana possession, sales, distribution, cultivation, consumption, criminalization, and medical classification. Although Nebraska has not established legal markets for recreational and medicinal sales, possession of less than one ounce has been decriminalized for first-time offenses.⁵

PREVALENCE

Marijuana use

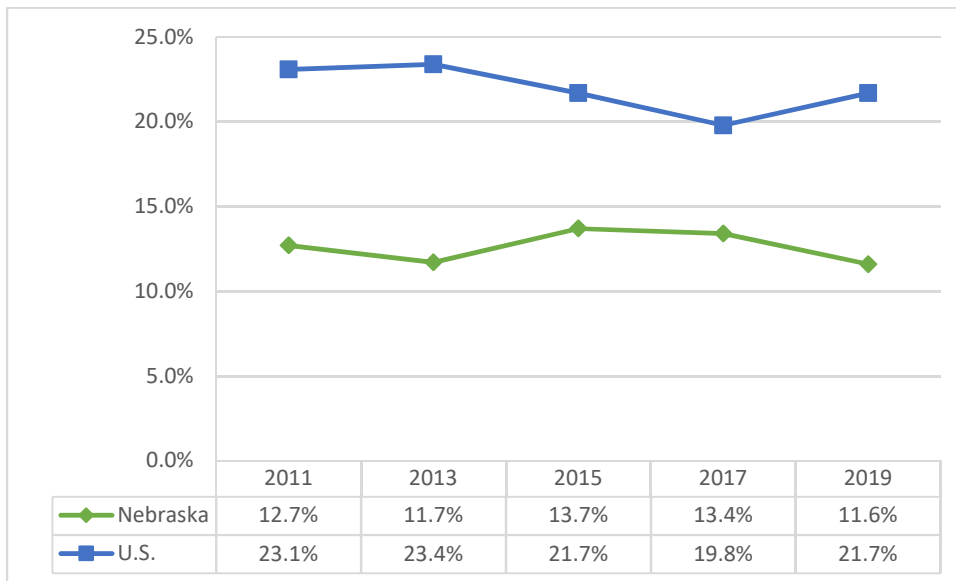
The 2019 Youth Risk Behavior Surveillance System⁶ (YRBSS) estimated that 25.6% (21.5-30.3) of Nebraska high school students (9th to 12th grade) had ever used marijuana and 11.6% (9.1-14.7) had used in the past month (current use); estimates for ever use [36.8% (34.4-39.2)] and current use [21.7% (19.9-23.7)] were significantly higher among U.S. high school students (*Figure 1*). In Nebraska, marijuana use was higher among females as compared to males, and 11th and 12th graders as compared to 9th and 10th graders (*Table 1*).

Table 1. Percentage of Nebraska and U.S. high school students reporting current marijuana use, Youth Risk Behavior Surveillance System, 2019

| | Nebraska (%) | U.S. (%) |
|---------------|--------------|----------|
| Total | 11.6 | 21.7 |
| Gender | | |
| Male | 10.9 | 22.5 |
| Female | 12.4 | 20.8 |
| Grade | | |
| 9th | 5.7 | 14.6 |
| 10th | 10.6 | 19.8 |
| 11th | 16.3 | 24.9 |
| 12th | 12.9 | 28.3 |

Source: CDC, 2019

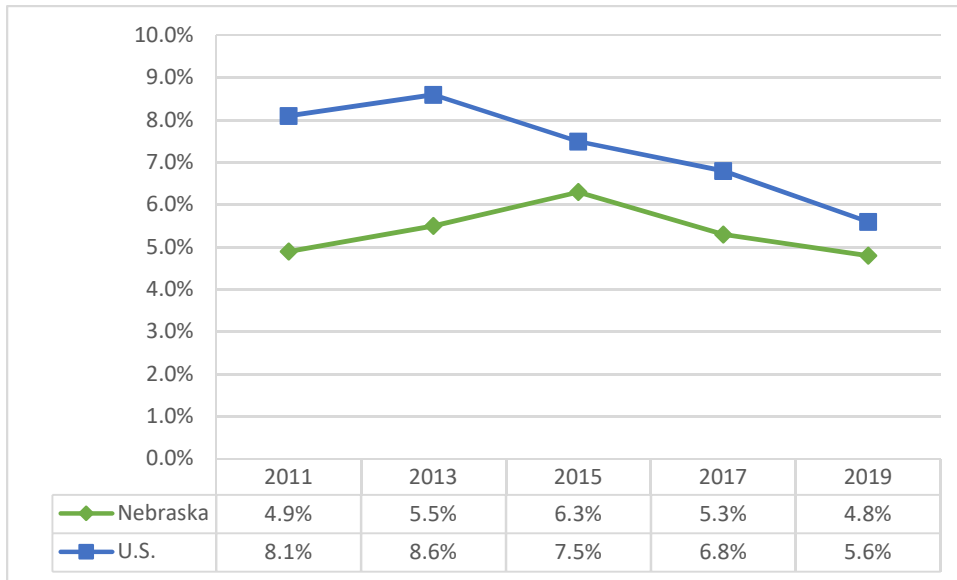
Figure 1. Percentage of Nebraska and U.S. high school students reporting current marijuana use, Youth Risk Behavior Surveillance System, 2011–2019



Source: CDC, 2011-2019

Additionally, 4.8% (3.5-6.6) of Nebraska high school students and 5.6% (4.9-6.5) of U.S. high school students reported trying marijuana for the first time before 13 years (*Figure 2*). Also, 24% of Nebraska high school students reported that they were offered, sold, or given marijuana or an illegal drug on school property.⁶

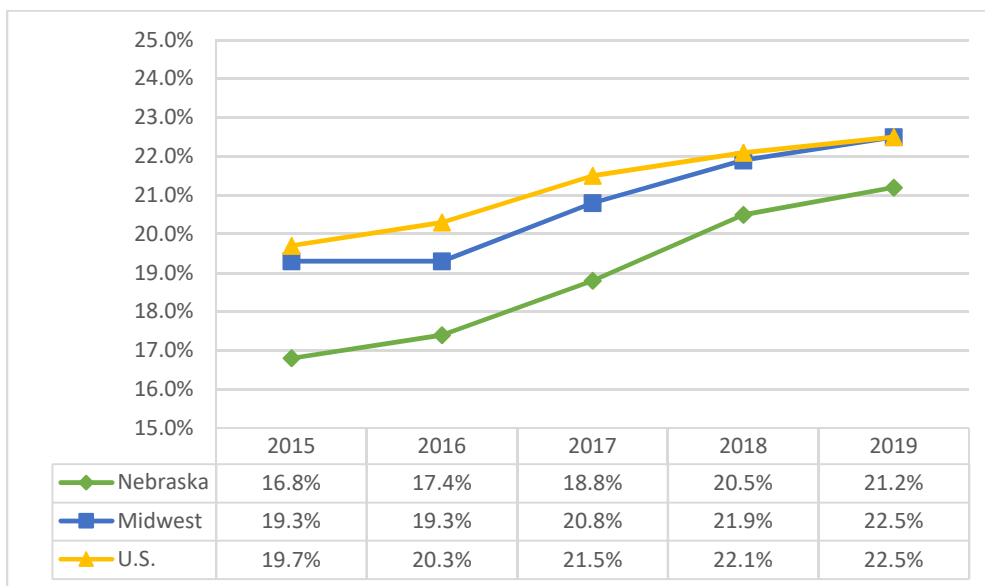
Figure 2. Percentage of Nebraska and U.S. high school students reporting trying marijuana for the first time before 13 years, Youth Risk Behavior Surveillance System, 2011–2019



Source: CDC, 2011-2019

In 2019, 21.2% (18.0-24.9) of Nebraska young adults (18-25 years) reported current marijuana use (*Figure 3*). Young adults in the U.S. [22.5% (21.9-23.2)] and Midwest [22.5% (21.2-23.8)] reported similar levels of current marijuana use. Since 2015, the prevalence of current marijuana use among Nebraska young adults has increased annually.

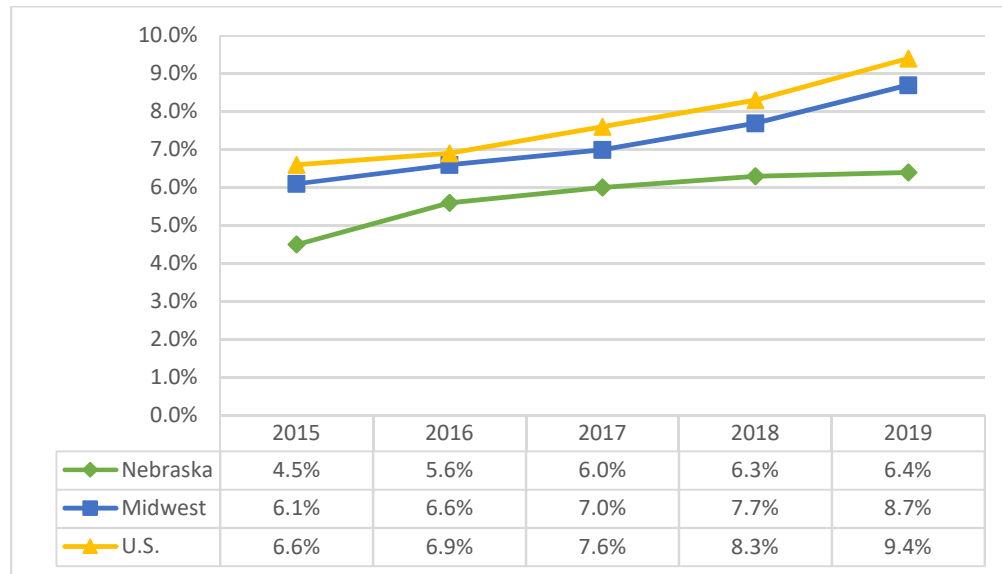
Figure 3. Percentage of Nebraska, Midwest, and U.S. young adults reporting current marijuana use, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

The 2019 NSDUH reported that among Nebraska adults (26 years and above), 6.4% (5.0-8.2) reported current marijuana use (*Figure 4*). Adults in the U.S. [9.4% (9.08-9.70)] and Midwest [8.7% (8.22-9.30)] reported significantly higher prevalence of current marijuana use.

Figure 4. Percentage of Nebraska, Midwest, and U.S. adults reporting current marijuana use, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

Opioids and Stimulants

According to the 2019 YRBSS, the percentages of Nebraska high school students reporting ever used heroin, cocaine, and methamphetamine were 1.9% (1.1-3.2), 3.5% (2.3-5.3), and 2.1% (1.3-3.5), respectively (*Figure 5*). U.S. high school students reported similar levels of lifetime use for heroin [1.8% (1.3-2.5)], cocaine [3.9% (3.2-4.7)], and methamphetamine [2.1% (1.6-2.8)]. Illegal drug use was higher among males as compared to females, and 12th graders as compared to 9th, 10th, and 11th graders (*Table 2*).

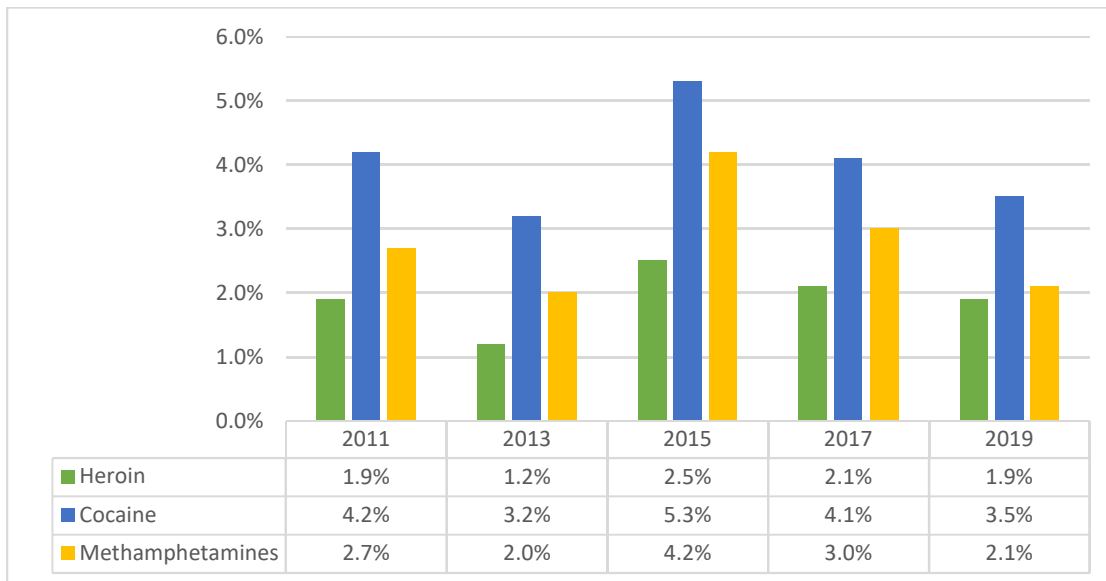
Needle injection is a common route of administration for illegal drugs⁸; the percentage of high school students who used a needle to inject an illegal drug into their body one or more times during their lifetime was 2.2% (1.5-3.3) in Nebraska and 1.6% (1.2-2.3) in the U.S.

Table 2. Percentage of Nebraska and U.S. high school students reporting past-year illicit drug use, Youth Risk Behavior Surveillance System, 2019

| | Heroin | | Cocaine | | Methamphetamine | |
|---------------|--------------|----------|--------------|----------|-----------------|----------|
| | Nebraska (%) | U.S. (%) | Nebraska (%) | U.S. (%) | Nebraska (%) | U.S. (%) |
| Total | 1.9 | 1.8 | 3.5 | 3.9 | 2.1 | 2.1 |
| Gender | | | | | | |
| Male | 3.0 | 2.3 | 4.5 | 4.9 | 2.9 | 2.7 |
| Female | 0.4 | 1.0 | 2.1 | 2.7 | 1.0 | 1.5 |
| Grade | | | | | | |
| 9th | 1.3 | 1.3 | 3.4 | 2.3 | 1.4 | 1.4 |
| 10th | 2.0 | 1.8 | 3.1 | 3.3 | 1.6 | 1.7 |
| 11th | 2.0 | 1.8 | 2.9 | 4.0 | 1.7 | 2.5 |
| 12th | 2.2 | 1.7 | 4.5 | 6.0 | 3.7 | 2.6 |

Source: CDC, 2019

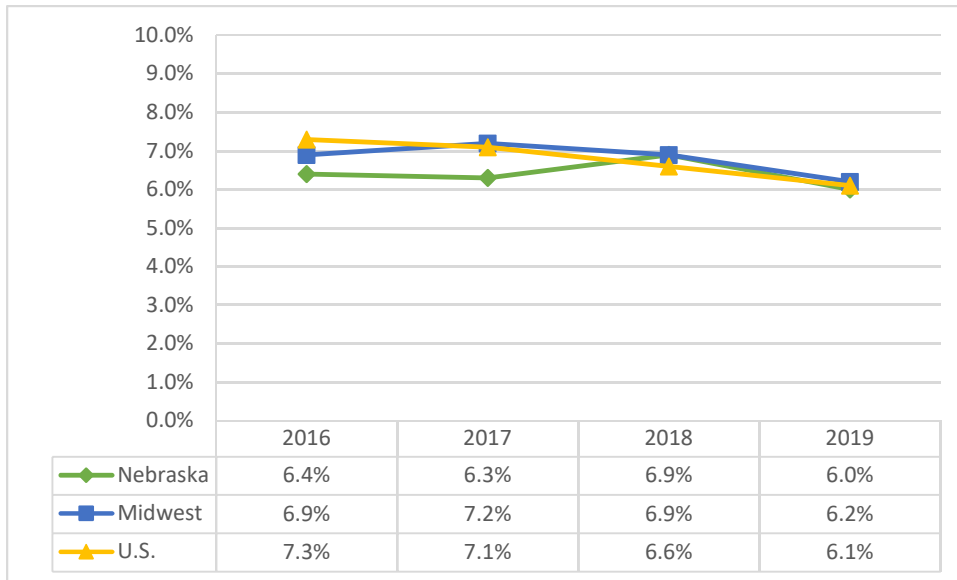
Figure 5. Percentage of Nebraska high school students reporting lifetime heroin, cocaine, and methamphetamine use, Youth Risk Behavior Surveillance System, 2011–2019



Source: CDC, 2019

According to the 2019 NSDUH, 6.0% (4.6-7.7) of Nebraska young adults reported use of illicit drugs other than marijuana (*Figure 6*). Young adults in the U.S. [6.1% (5.73-6.43)] and Midwest [6.2% (5.66-6.73)] reported similar rates.

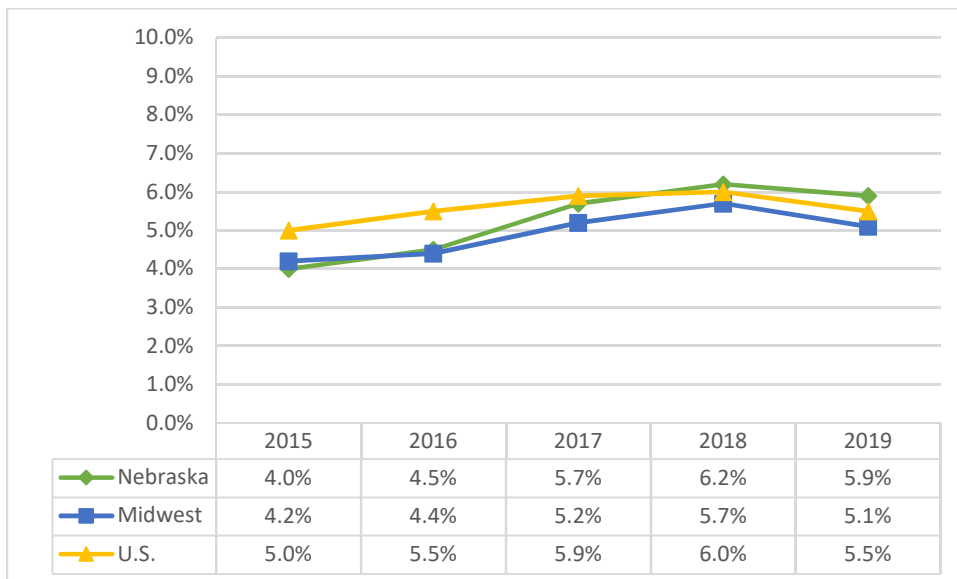
Figure 6. Percentage of Nebraska, Midwest, and U.S. young adults reporting current illicit drugs use other than marijuana, National Survey on Drug Use and Health, 2016–2019



Source: SAMHSA, 2016-2019

In 2019, 5.9% (5.2-5.9) of Nebraska young adults reported using cocaine in the past year (*Figure 7*). Cocaine was the most widely used illicit drug. Young adults in the U.S. [5.5% (5.2-5.9)] and Midwest [5.1% (4.5-5.7)] reported similar use rates.

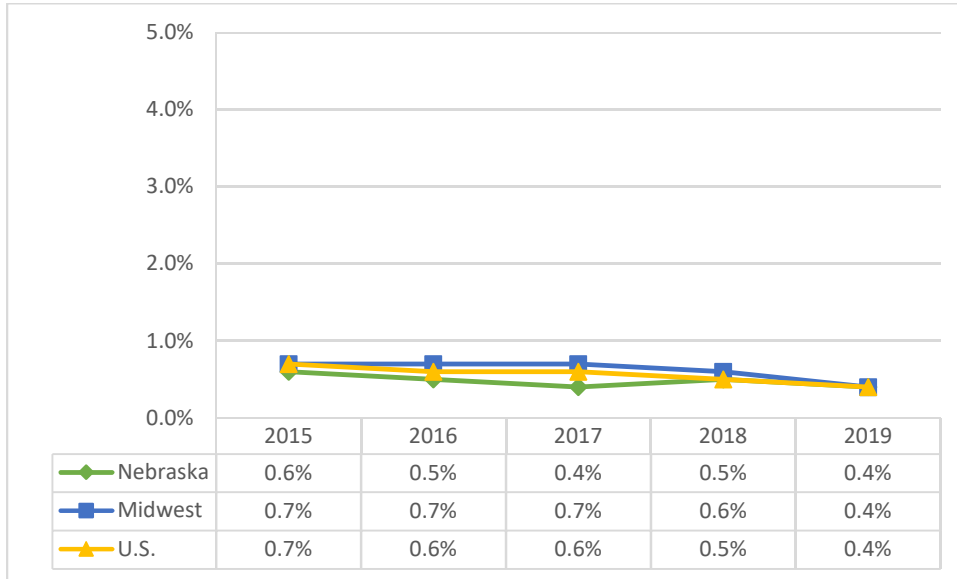
Figure 7. Percentage of Nebraska, Midwest, and U.S. young adults reporting cocaine use in the past year, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

Additionally, 0.4% (0.2-0.7) of young adults in Nebraska reported heroin use in the past year in 2019 (*Figure 8*). Young adults in the U.S. [0.4% (0.3-0.5)] and Midwest [0.4% (0.3-0.5)] reported similar levels of past year heroin use.

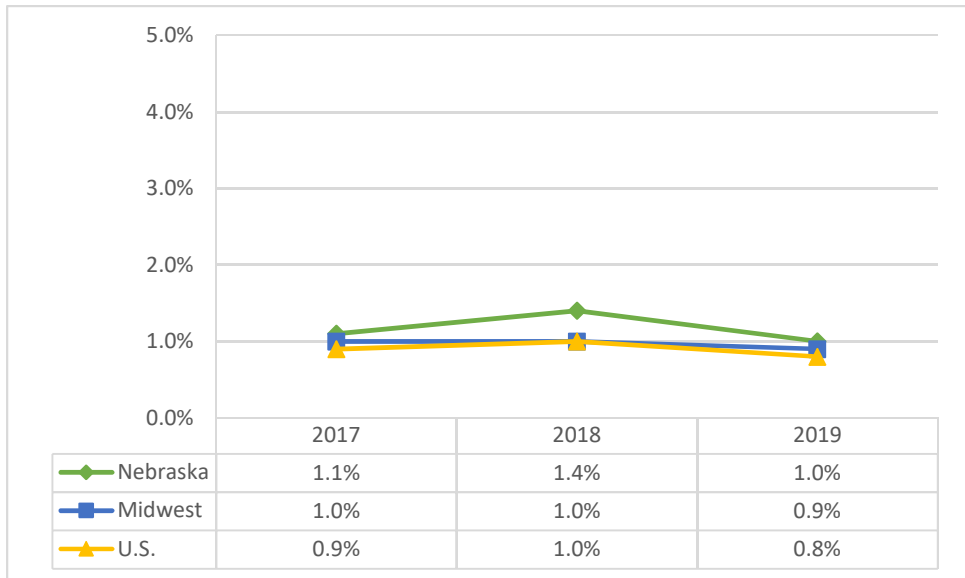
Figure 8. Percentage of Nebraska, Midwest, and U.S. young adults reporting heroin use in the past year, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

In 2019, 1.0% (0.6-1.8) of Nebraska young adults reported using methamphetamine in the past year (*Figure 9*). Young adults in the U.S. [0.8% (0.7-0.9)] and Midwest [0.9% (0.7-1.1)] reported similar levels of past year methamphetamine use.

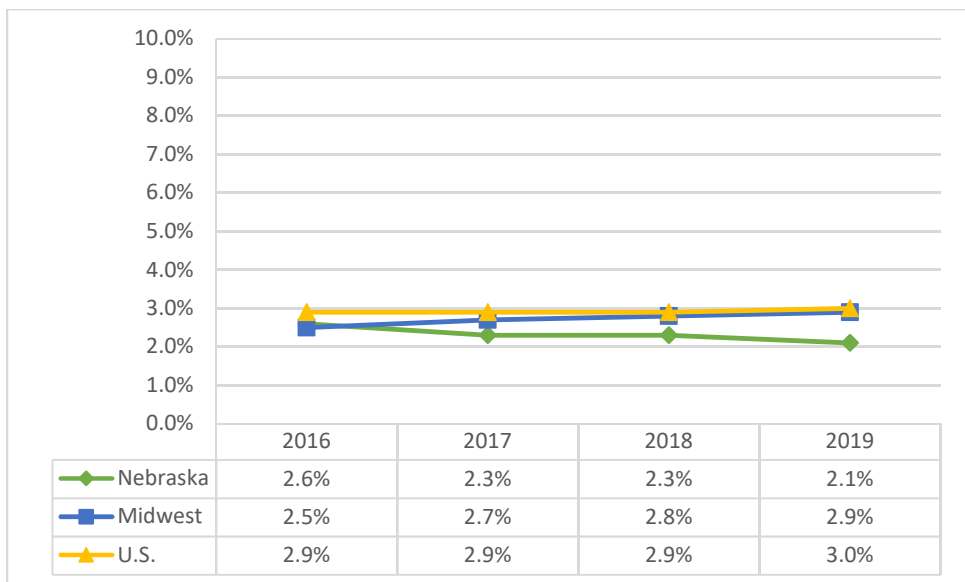
Figure 9. Percentage of Nebraska, Midwest, and U.S. young adults reporting methamphetamine use in the past year, National Survey on Drug Use and Health, 2017–2019



Source: SAMHSA, 2017-2019

The percentage of Nebraska adults [2.1% (1.5-3.0)] reporting current illicit drug use other than marijuana was similar to the percentages of adults in the U.S. [3.0% (2.8-3.2)] and Midwest [2.9% (2.7-3.3)] (*Figure 10*).

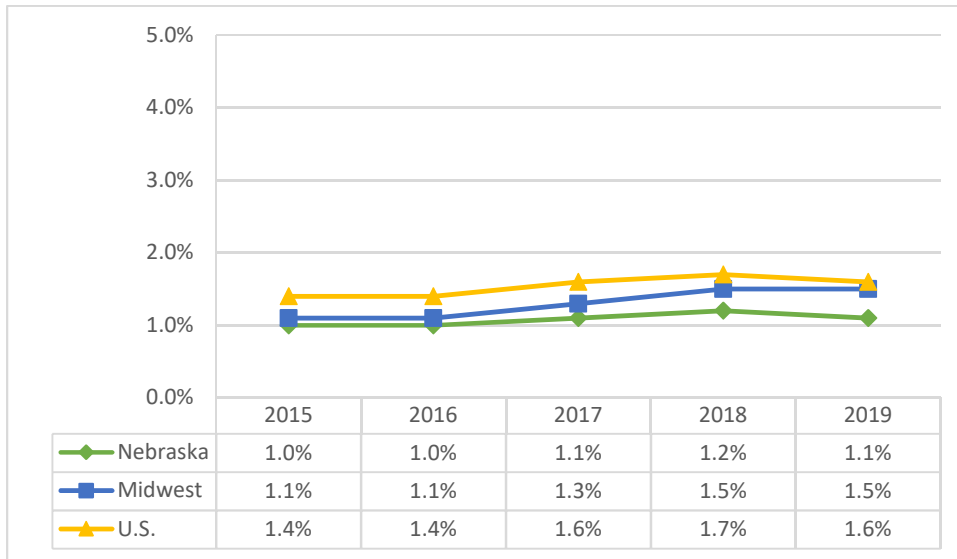
Figure 10. Percentage of Nebraska, Midwest, and U.S. adults reporting current illicit drug use, National Survey on Drug Use and Health, 2016–2019



Source: SAMHSA, 2016-2019

In 2019, 1.1% (0.7-1.7) of Nebraska adults reported cocaine use in the past year (*Figure 11*). Adults in the U.S. [1.6% (1.5-1.8)] and Midwest [1.5% (1.3-1.6)] reported similar levels.

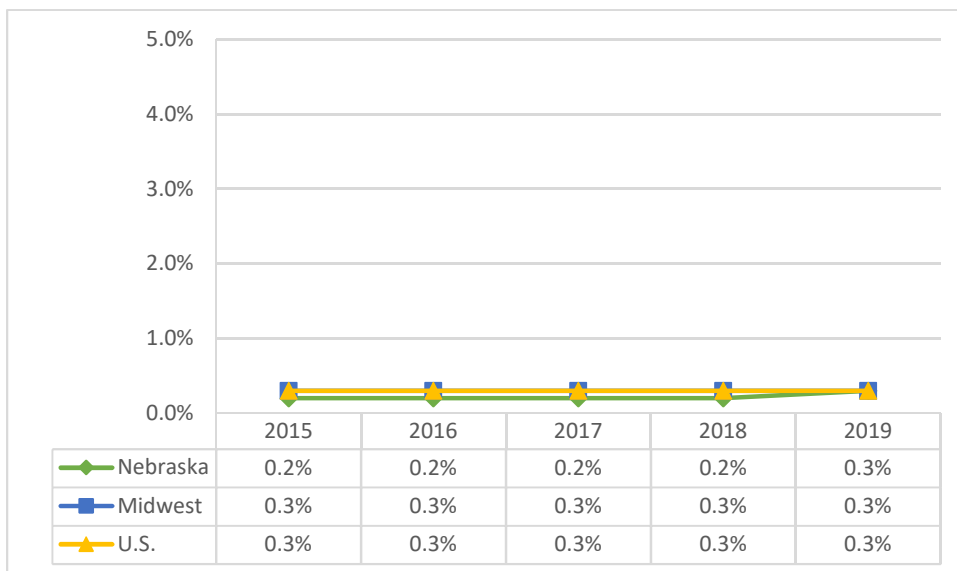
Figure 11. Percentage of Nebraska, Midwest, and U.S. adults reporting cocaine use in the past year, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

The percentage of Nebraska adults reporting past year heroin use in 2019 was 0.3% (0.1-0.6). Adults in the U.S. [0.3% (0.25-0.4)] and Midwest [0.3% (0.24-0.5)] reported similar levels.

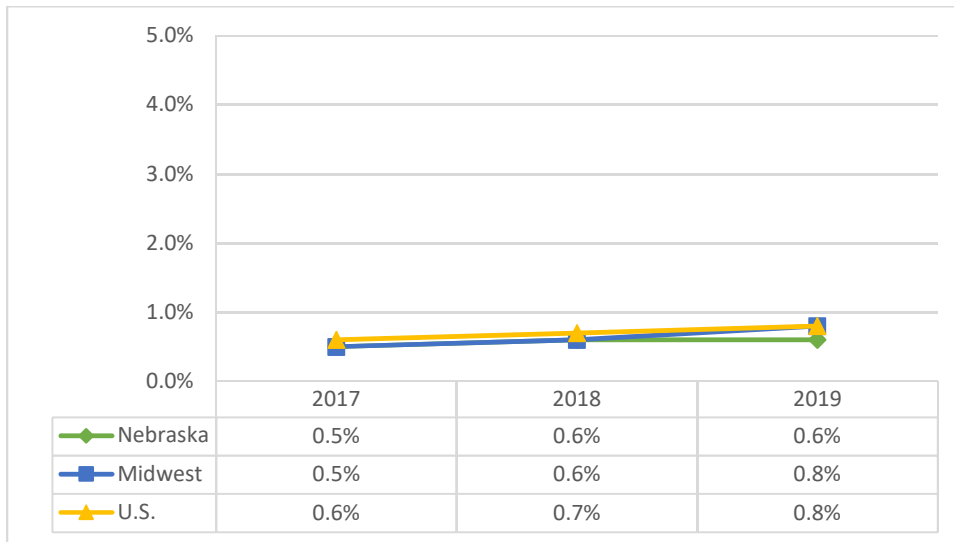
Figure 12. Percentage of Nebraska, Midwest, and U.S. adults reporting heroin use in the past year, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

In 2019, 0.6% (0.28-1.16) of Nebraska adults reported using methamphetamine in the past year. Rates of past year methamphetamine use were similar in the U.S. [0.8% (0.7-0.9)] and Midwest [0.8% (0.6-0.9)] (*Figure 13*).

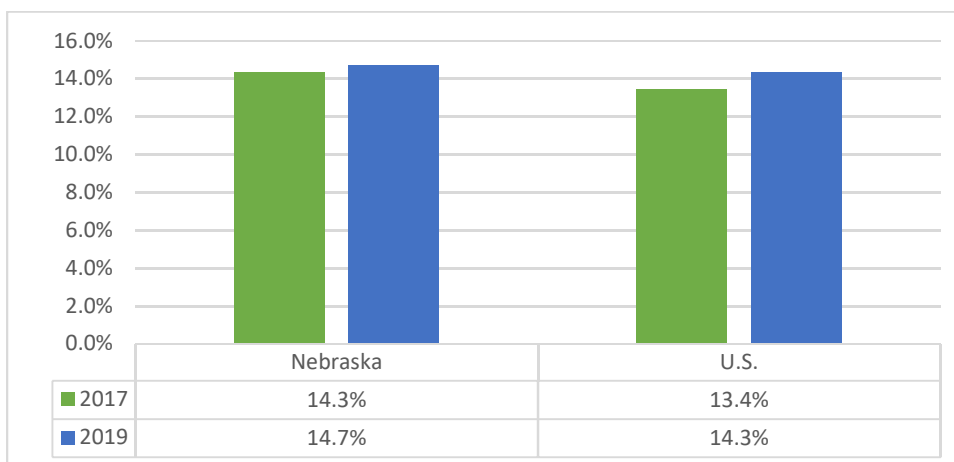
Figure 13. Percentage of Nebraska, Midwest, and U.S. adults reporting methamphetamine use in the past year, National Survey on Drug Use and Health, 2017–2019



Source: SAMHSA, 2017-2019

According to the 2019 YRBSS, 14.7% (12.7-16.8) of Nebraska high school students and 14.3% (12.8-15.9) of U.S. high school students had ever taken prescription pain medicine without a doctor’s prescription or differently than prescribed (*Figure 14*).⁹

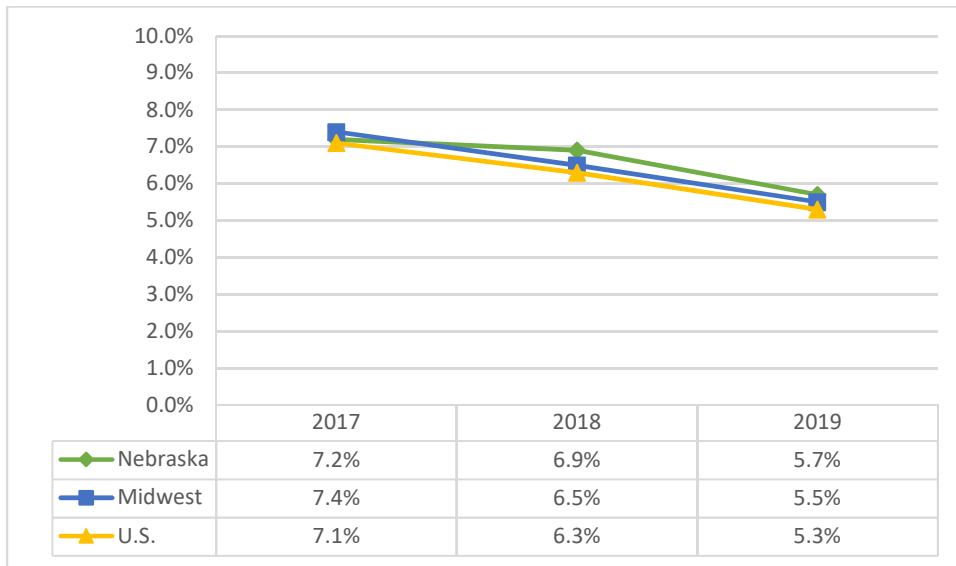
Figure 14. Percentage of Nebraska and U.S. high school students reporting lifetime prescription pain medication use, Youth Risk Behavior Surveillance System, 2017–2019



Source: CDC, 2017-2019

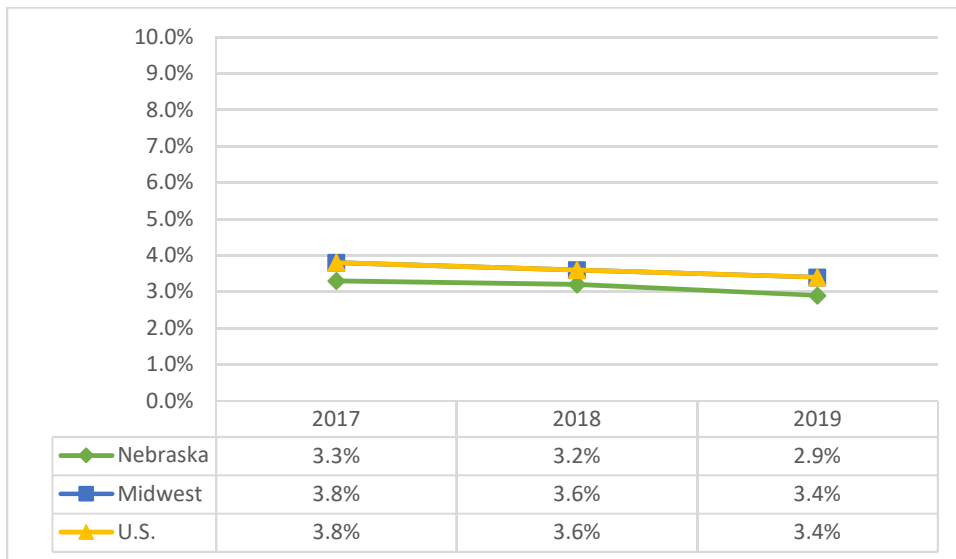
According to 2019 NSDUH, 5.7% (4.4-7.2) of young adults in Nebraska, 5.5% (5.0-6.0) in the Midwest, and 5.3% (5.0-5.7) in the U.S. reported pain reliever misuse in the past year (*Figure 15*). Additionally, 2.9% (2.2-4.0) of adults in Nebraska, 3.4% (3.2-3.7) in the Midwest, and 3.4% (3.3-3.6) in the U.S. also reported past year pain reliever misuse (*Figure 16*).

Figure 15. Percentage of Nebraska, Midwest, and U.S. young adults reporting pain reliever misuse in the past year, National Survey on Drug Use and Health, 2017–2019



Source: SAMHSA, 2017-2019

Figure 16. Percentage of Nebraska, Midwest, and U.S. adults reporting pain reliever misuse in the past year, National Survey on Drug Use and Health, 2017–2019



Source: SAMHSA, 2017-2019

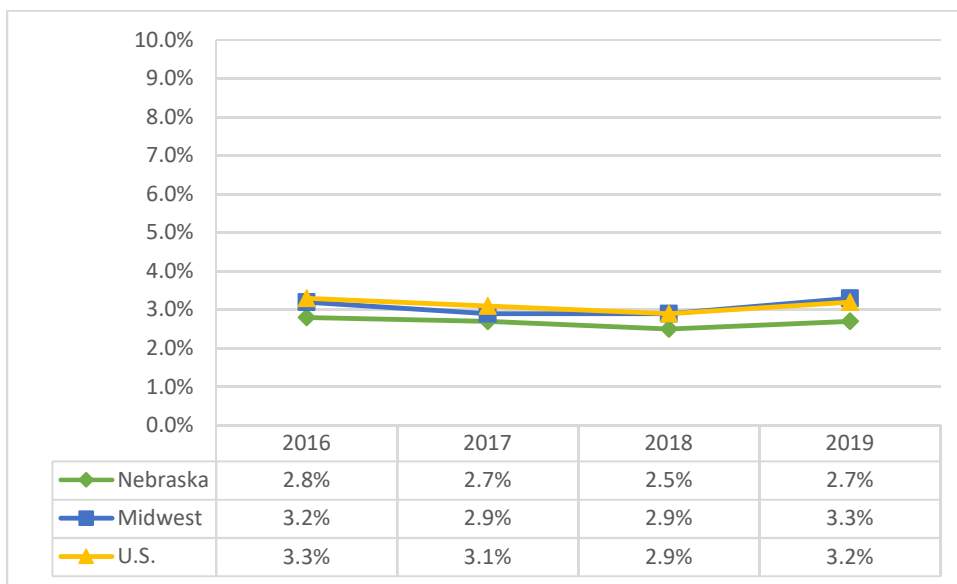
CONSEQUENCES

Marijuana

Research shows that regular use of marijuana results in both short- and long-term health consequences.² Short-term effects include impaired motor coordination, short-term memory loss, altered judgement, paranoia, and psychosis. Long-term use is associated with addiction, altered brain development, cognitive impairment, chronic bronchitis, and risks of mental illness.

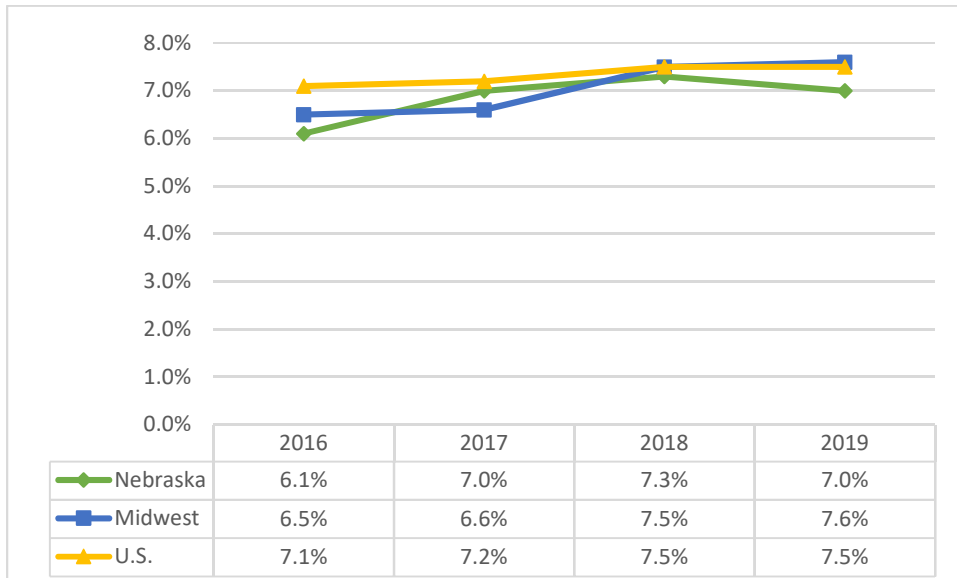
The 2019 NSDUH indicates that 2.7% (2.0-3.7) of adolescents (13-17 years), 6.9% (5.5-8.9) of young adults, and 1.8% (1.2-2.5) of adults in Nebraska had an illicit drug use disorder (including disorders related to marijuana use) in the past year (*Figures 17, 18, and 19*). Estimates of the prevalence of illicit drug use disorders for each age group were not significantly different from U.S. and Midwestern peers.

Figure 17. Percentage of Nebraska, Midwest, and U.S. adolescents reporting past-year illicit drug use disorder, National Survey on Drug Use and Health, 2016–2019



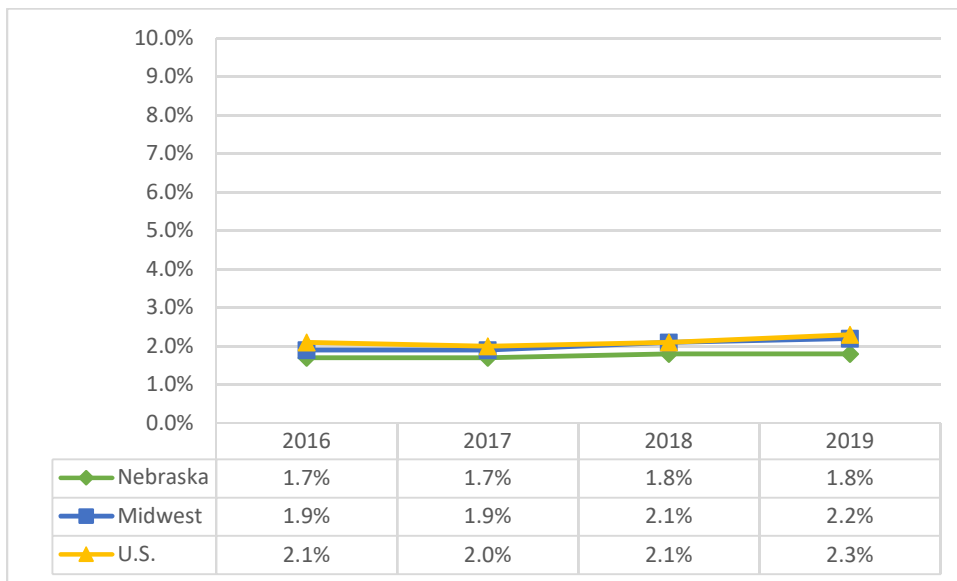
Source: SAMHSA, 2016-2019

Figure 18. Percentage of Nebraska, Midwest, and U.S. young adults reporting past-year illicit drug use disorder, National Survey on Drug Use and Health, 2016-2019



Source: SAMHSA, 2016-2019

Figure 19. Percentage of Nebraska, Midwest, and U.S. adults reporting past-year illicit drug use disorder, National Survey on Drug Use and Health, 2016-2019



Source: SAMHSA, 2016-2019

In addition to the negative health consequences, short- and long-term exposure to marijuana can impair driving ability.² In the 2020 Nebraska Young Adult Alcohol Opinion Survey¹⁰

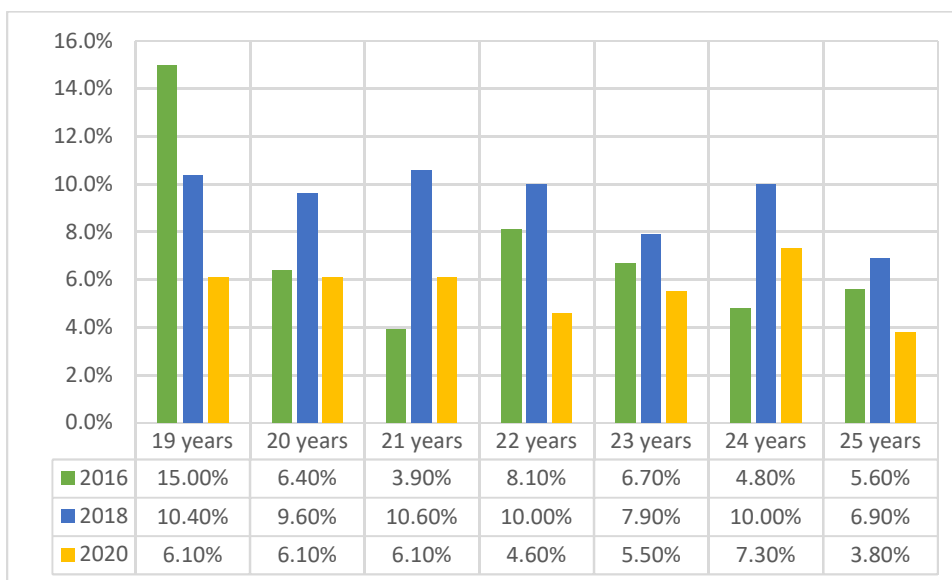
(NYAAOS), 5.6% of Nebraska young adults (19-25 years) reported driving in the past year while under the influence of marijuana (*Table 3*) (*Figure 20*). Marijuana dependence can also have undesirable economic and social implications. Previous studies have found that people who use recreational marijuana regularly are more likely to end up in a lower social class than their parents, have problems with their personal and professional relationships, and experience increased financial difficulties.²

Table 3. Percentage of Nebraska young adults reporting past-year driving under the influence of marijuana, Nebraska Young Adult Alcohol Opinion Survey, 2020

| | Nebraska (%) |
|-------------------|--------------|
| Total | 5.6 |
| Gender | |
| Male | 5.3 |
| Female | 6.0 |
| Ethnicity | |
| Hispanic | 8.3 |
| Non-Hispanic | 5.3 |
| Urbanicity | |
| Urban | 7.9 |
| Large rural | 5.3 |
| Small rural | 3.2 |

Source: Nebraska DHHS, 2020

Figure 20. Percentage of Nebraska young adults reporting past-year driving under the influence of marijuana, Nebraska Young Adult Alcohol Opinion Survey, 2016-2020

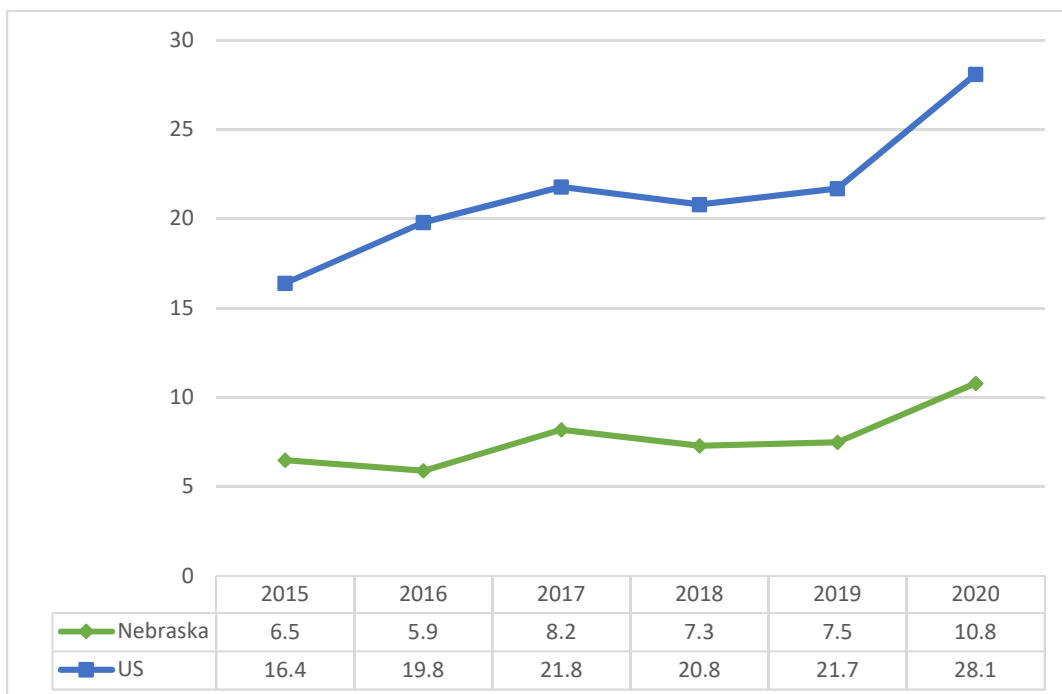


Source: Nebraska DHHS, 2016-2020

Opioids and Stimulants

Factors that increase an individual’s risk of overdose include dosage, polysubstance use, drug use experience, and setting.¹³ In 2020, there were 10.8 drug overdose deaths per 100,000 individuals in Nebraska (209 deaths) compared to 28.1 in the US (92,183 deaths) according to provisional data from the National Center for Health Statistics (*Figure 21*). Nebraska’s drug overdose mortality rate ranked 49th among all other states in 2020 despite a 43 percent increase in deaths from the previous year.

Figure 21. Drug Overdose Mortality Rate per 100,000 Population in Nebraska, Provisional Drug Overdose Death Counts, 2015–2020



Source: National Center for Health Statistics, 2015-2020

Data presented in Table 4 provide finalized counts of fatal overdoses in 2019 broken down by substance, age, sex, and intention from the CDC Wonder Database. Deaths resulting from overdoses may involve multiple substances. Counts with less than 10 deaths are suppressed. Among all substances, opioids were involved in the most number of overdoses (68), followed by psychostimulants (51) and benzodiazepines (34). Males and individuals aged 45 to 54 were more likely to have died by overdose. Most fatal overdoses (122) were categorized as unintentional.

Table 4. Fatal overdoses in Nebraska by substance, age, sex, and intention, CDC Wonder: Multiple Cause of Death, 2019

| Nebraska | |
|--|-----|
| Substance (ICD-10 Codes) | |
| All opioids (T40.0-T40.4, T40.6) | 68 |
| Synthetic opioids other than methadone (T40.4) | 27 |
| Heroin (T40.1) | 15 |
| Benzodiazepines (T42.4) | 34 |
| Psychostimulants with abuse potential (T43.6) | 51 |
| Age (years) | |
| 1-14 | -- |
| 15-24 | 15 |
| 25-34 | 28 |
| 35-44 | 33 |
| 45-54 | 43 |
| 55-64 | 29 |
| 65-74 | 11 |
| 75-84 | -- |
| 85+ | -- |
| Sex | |
| Male | 90 |
| Female | 71 |
| Intention | |
| Unintentional | 122 |
| Intentional | 31 |
| Undetermined | 8 |

Source: National Center for Health Statistics, 2019

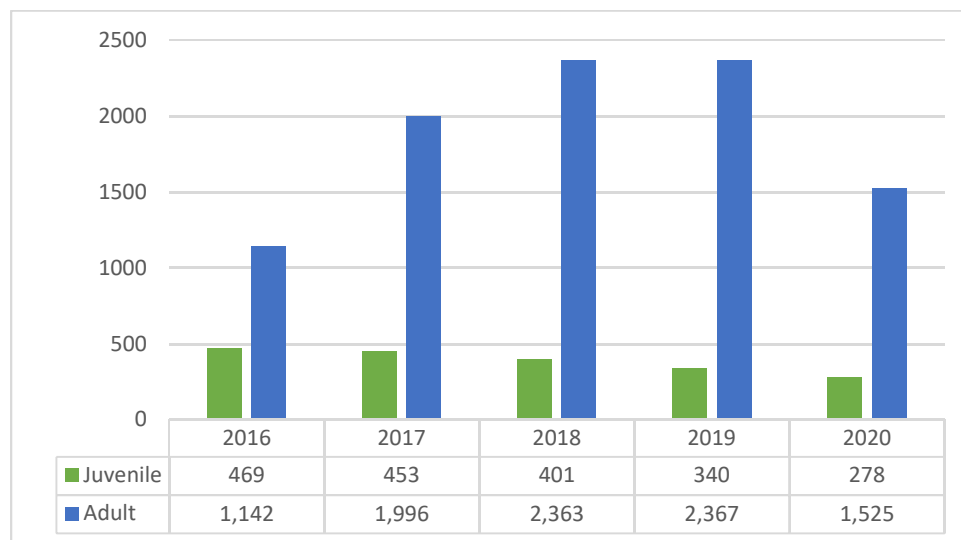
A total of 2,316 visits to emergency departments were reported in Nebraska due to a non-fatal opioid overdose in 2019 (*Refer to Appendix 3 for mapped rates of intentional and unintentional overdoses in Nebraska*).

Among those who inject opioids, there is high risk of contracting human immunodeficiency virus (HIV) and hepatitis B and C due to common practices of needle-sharing.¹⁴ Both viral infections are transmitted when blood of an infected person enters the body of a person who is not infected. In 2018, the rate of HIV diagnoses in Nebraska was 4.1 per 100,000 people.¹⁵ Additionally, in 2017, 9.8% and 12.5% of new HIV diagnoses were attributed to injection drug use for males and females, respectively.¹⁶ Additionally, in 2018, there were three new cases of hepatitis B and two new cases of hepatitis C reported in Nebraska.¹⁷

The use of high doses of stimulants for long periods of time can result in serious health consequences. Misuse of stimulants is associated with cardiovascular, neurological, and gastrointestinal complications; in severe overdose cases, there are possible complications of coma and death.⁹ Additionally, stimulant use, even for a short period, may cause other symptoms such as psychosis, anger, and paranoia. Methamphetamine use in particular damages the brain, liver, and kidneys.¹¹ In 2019, there were 92 emergency department and 128 in-patient, non-fatal stimulant overdoses in Nebraska.¹³

The criminal justice system also bears a substantial portion of the burden of drug use. According to 2018 data from the Nebraska Crime Commission, a plurality of arrests, nearly 20%, were made for drug abuse violations.¹⁸ According to the Nebraska Office of Probation Administration, 1,525 adults and 278 juveniles were convicted or adjudicated of a drug-related offense in 2020 (Figure 22). From 2016 to 2019, the number of drug-related offenses among Nebraska adults increased each year.

Figure 22. Number of drug-related offenses among Nebraska adults and juveniles, Office of Probation Administration, Nebraska, 2016-2020



Source: Nebraska Office of Probation Administration, 2016-2020

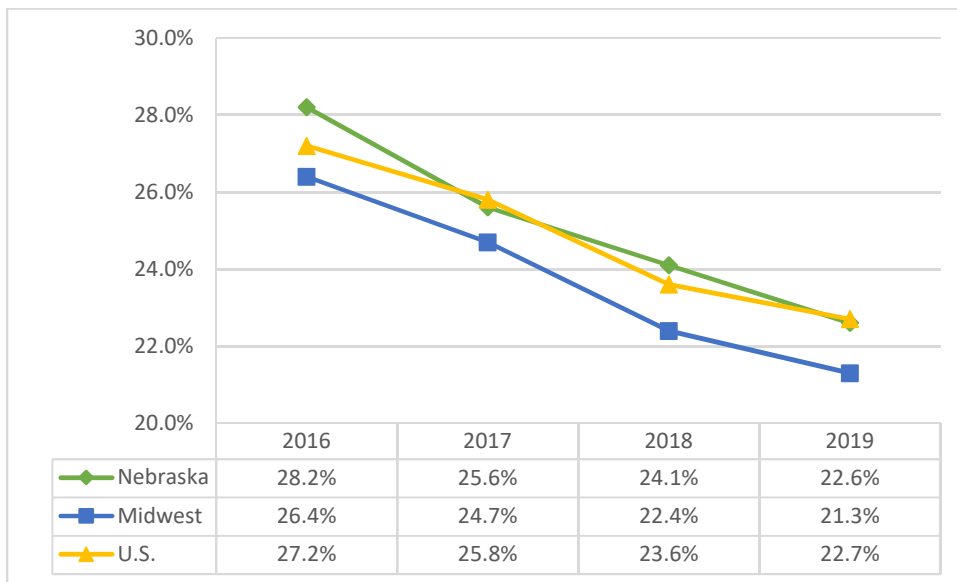
PERCEPTIONS AND SOCIAL NORMS

Surveys suggest that adolescents and young adults tend to overestimate the prevalence and acceptance of substance use among peers.¹⁹ Young people may also assume that parents and other adults endorse illicit drug use when, in fact, they do not. As a result, young people may adopt drug use behaviors in attempts to comply with misperceptions of dominant group norms. Drug use among adolescents and young adults may also be influenced by individual perceptions

of risks. Those perceiving less risk from drug use, may become more likely to experiment and use with recurring frequency.

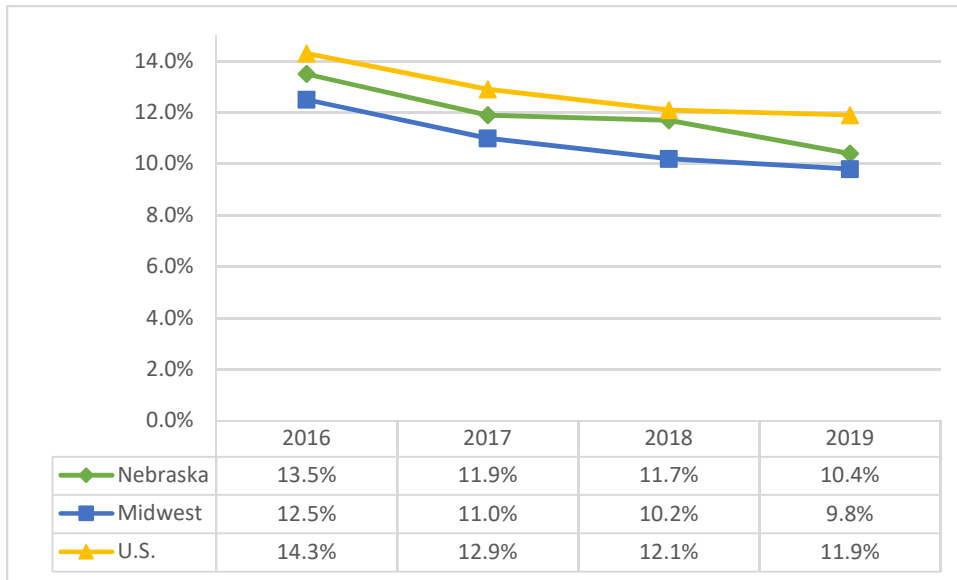
The 2019 NSDUH indicates that 22.6% (19.7-25.9) of Nebraska adolescents, 10.4% (8.5-12.7) of Nebraska young adults, and 24.89% (22.0-28.0) of Nebraska adults perceived great risk from smoking marijuana once a month (*Figures 23, 24, and 25*). Perceptions of risk around current marijuana use were similar among peers in the U.S. and Midwest.

Figure 23. Percentage of Nebraska, Midwest, and U.S. adolescents perceiving great risk from smoking marijuana once a month, National Survey on Drug Use and Health, 2016-2019



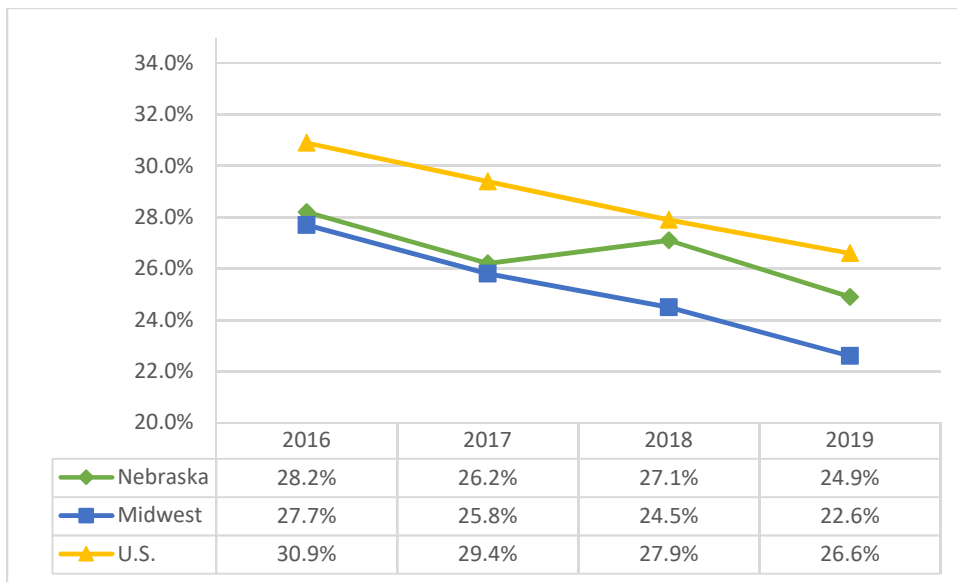
Source: SAMHSA, 2016-2019

Figure 24. Percentage of Nebraska, Midwest, and U.S. young adults perceiving great risk from smoking marijuana once a month, National Survey on Drug Use and Health, 2016-2019



Source: SAMHSA, 2016-2019

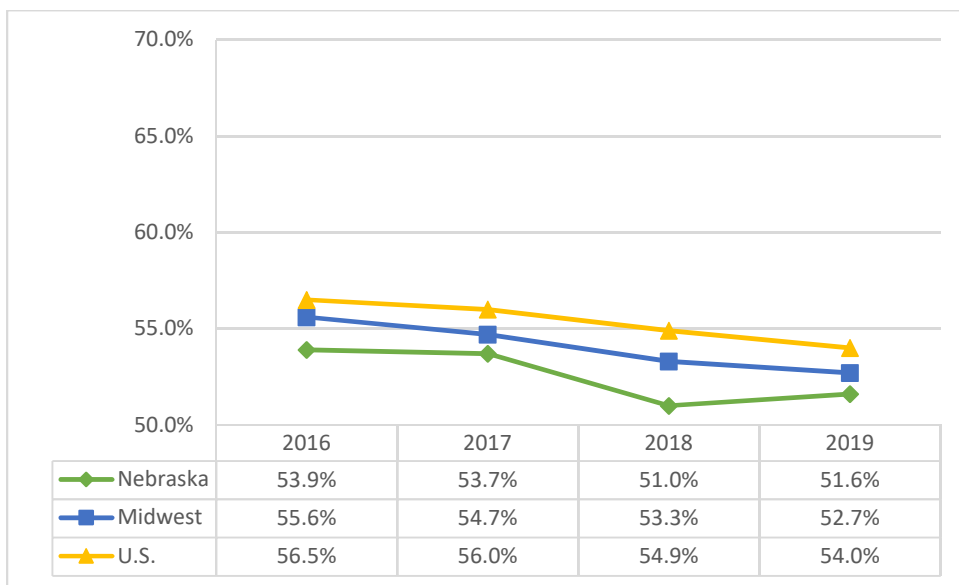
Figure 25. Percentage of Nebraska, Midwest, and U.S. adults perceiving great risk from smoking marijuana once a month, National Survey on Drug Use and Health, 2016-2019



Source: SAMHSA, 2016-2019

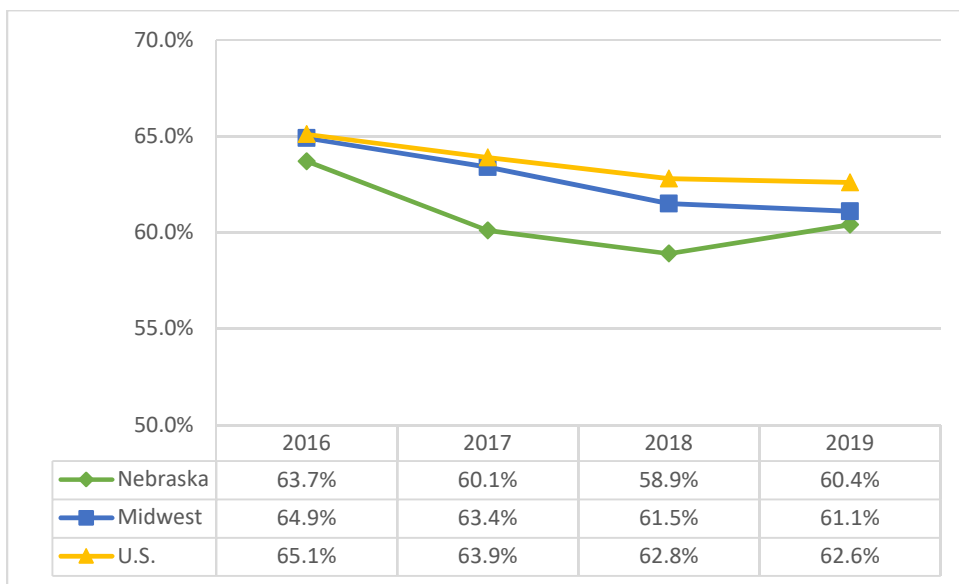
The perceptions of great risk from using cocaine once a month was 51.6% (48.4-54.7) for adolescents, 60.4% (57.0-63.7) for young adults, and 74.2% (71.3-76.8) for adults in Nebraska in 2020 (*Figures 26, 27, and 28*). The perceptions of risk from cocaine use were lower among Nebraska adolescents and young adults as compared to adults.

Figure 26. Percentage of Nebraska, Midwest, and U.S. adolescents perceiving great risk from using cocaine once a month, National Survey on Drug Use and Health, 2016-2019



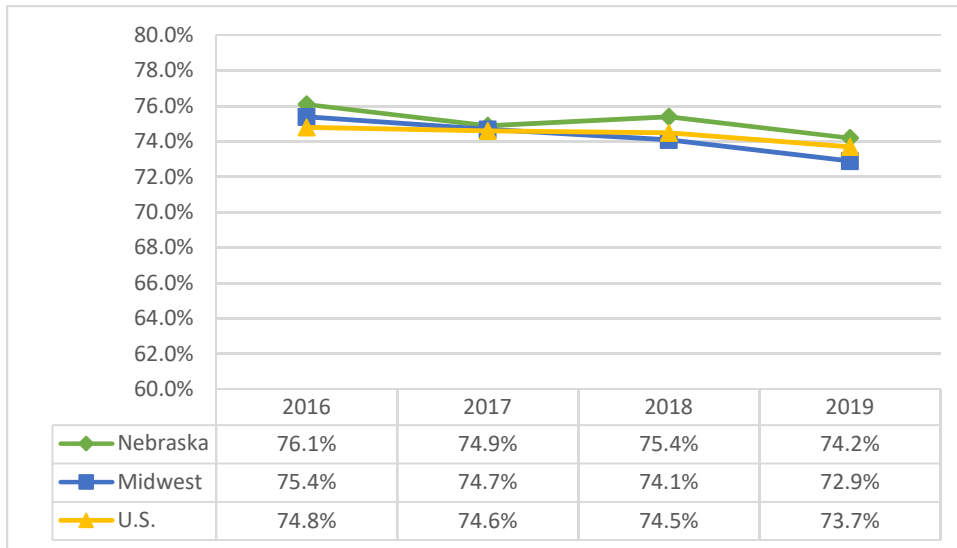
Source: SAMHSA, 2016-2019

Figure 27. Percentage of Nebraska, Midwest, and U.S. young adults perceiving great risk from using cocaine once a month, National Survey on Drug Use and Health, 2016-2019



Source: SAMHSA, 2016-2019

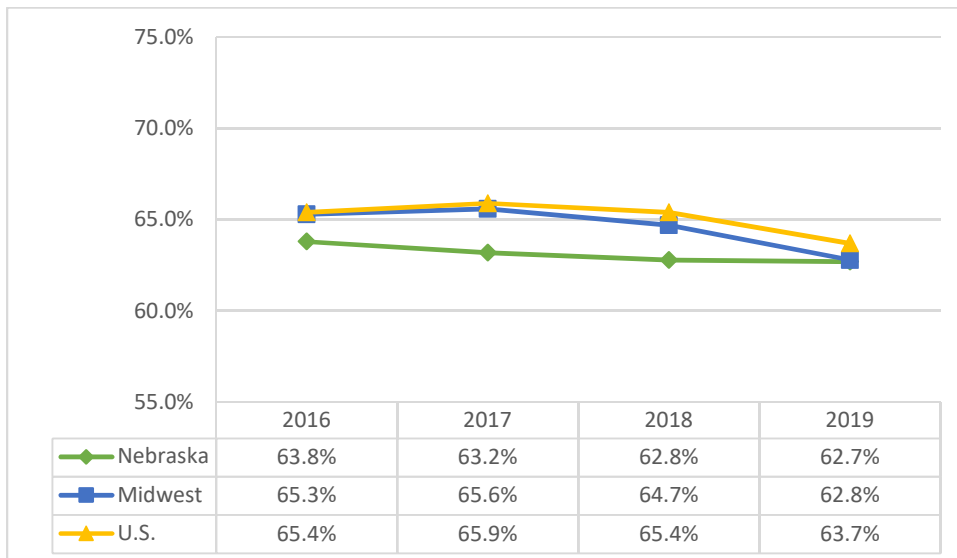
Figure 28. Percentage of Nebraska, Midwest, and U.S. adults perceiving great risk from using cocaine once a month, National Survey on Drug Use and Health, 2016-2019



Source: SAMHSA, 2016-2019

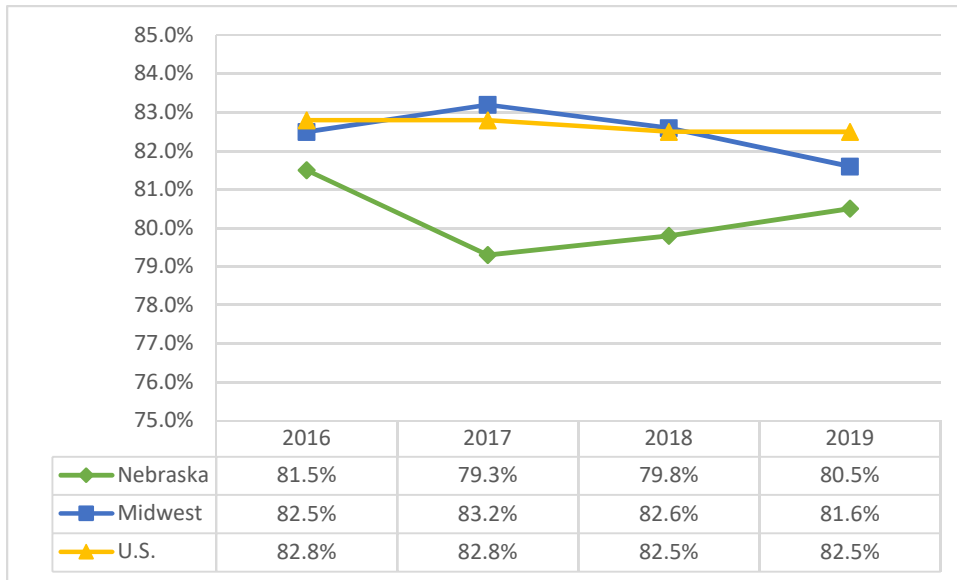
The perceptions of great risk from trying heroin once or twice a month in Nebraska was 62.7% (59.06-66.23) for adolescents, 80.5% (77.29-83.39) for young adults, and 88.1% (85.95-89.89) for adults in 2019 (*Figures 30, 31, and 32*). The perceived risk of trying heroin was similar among Nebraskans as compared to estimates for the Midwest and the U.S.

Figure 29. Percentage of Nebraska, Midwest, and U.S. adolescents perceiving great risk from trying heroin once or twice, National Survey on Drug Use and Health, 2016-2019



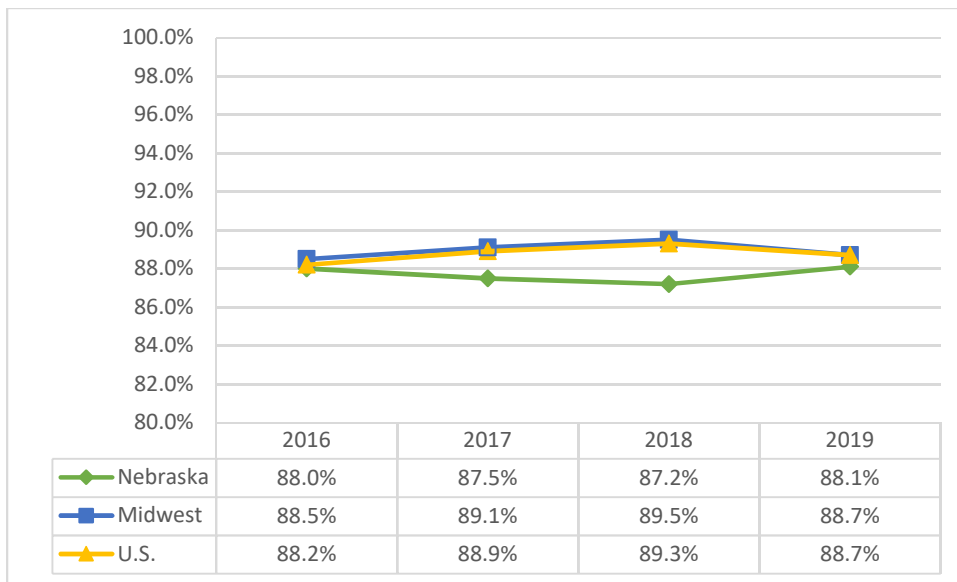
Source: SAMHSA, 2016-2019

Figure 30. Percentage of Nebraska, Midwest, and U.S. young adults perceiving great risk from trying heroin once or twice, National Survey on Drug Use and Health, 2016-2019



Source: SAMHSA, 2016-2019

Figure 31. Percentage of Nebraska, Midwest, and U.S. adults perceiving great risk from trying heroin once or twice, National Survey on Drug Use and Health, 2016-2019



Source: SAMHSA, 2016-2019

Perceptions of risk of harm from drug use vary by age, sex, education, and area of residence. According to the 2020 Nebraska Community Alcohol Opinion Survey²⁰ (NCAOS), 87.6% of Nebraska adults (above 25 years) reported that it was wrong or very wrong for those aged 18 and under to use marijuana; 71.1% reported that it was wrong or very wrong for those aged 18 to 20

to use marijuana; and, 52.9% reported that it was wrong or very wrong for those aged 21 and older to use marijuana (*Table 5*).

Table 5. Percentage of Nebraska adults reporting wrong or very wrong to use marijuana, Nebraska Community Alcohol Opinions Survey, Nebraska 2019

| | Wrong or very wrong for those 18 and under to use marijuana (%) | Wrong or very wrong for those 18 to 20 to use marijuana (%) | Wrong or very wrong for those 21 and older to use marijuana (%) |
|---------------------------|---|---|---|
| Total | 87.6 | 71.1 | 52.9 |
| Sex | | | |
| Male | 84.9 | 66.4 | 47.2 |
| Female | 89.8 | 75.2 | 57.8 |
| Area | | | |
| Urban-large | 85.2 | 67.9 | 45.4 |
| Urban-small | 91.8 | 73.8 | 59.0 |
| Rural | 89.9 | 77.4 | 66.4 |
| Education | | | |
| High school | 87.7 | 70.6 | 49.4 |
| Associate/college degree | 89.5 | 69.5 | 54.0 |
| Bachelors/graduate degree | 86.0 | 71.9 | 52.9 |

Source: Nebraska DHHS, 2019

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MENTAL HEALTH CONDITIONS

INTRODUCTION

According to the Centers for Disease Control and Prevention (CDC), mental health includes emotional, psychological, and social well-being which determines how people think, feel and act. Mental illnesses are conditions that affect a person's thinking, feeling, mood or behavior.¹

Mental illnesses are caused by a number of risk factors such as early adverse experiences, feelings of loneliness or isolation, having few friends, experiences related to ongoing chronic medical conditions, genetics, chemical imbalances in the brain, and use of alcohol and/or recreational drugs. According to the CDC, 1 in 5 Americans experience a mental illness in a given year, and 1 in 25 live with a serious mental illness.

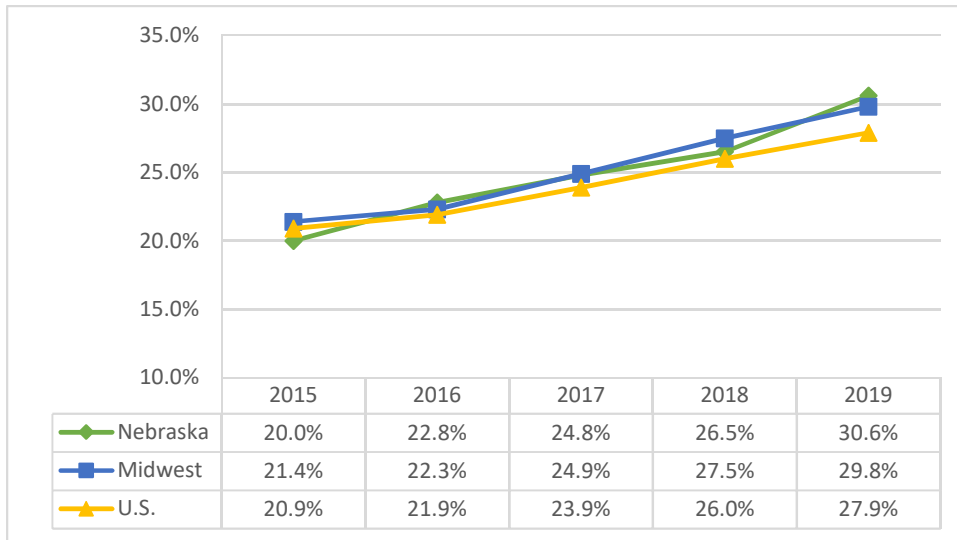
According to the National Institute on Drug Abuse (NIDA), many individuals who develop substance use disorders have also been diagnosed with mental health disorders, and vice versa.² In 2019, 51.5 million U.S adults had a mental illness and 9.5 million had a co-occurring substance use disorder.³

PREVALENCE

Mental illness

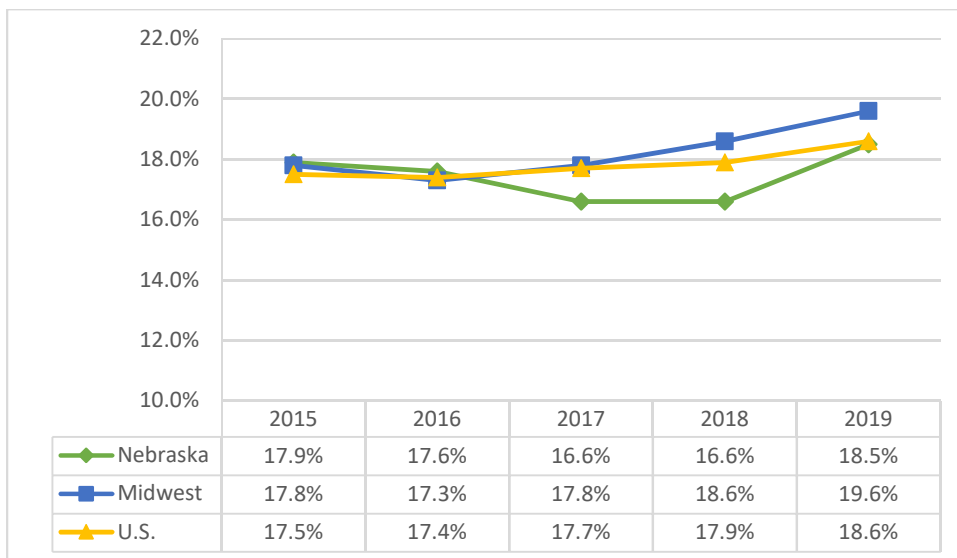
Any mental illness (AMI) is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder.⁴ According to the 2019 National Survey on Drug Use and Health (NSDUH), 30.6% (27.3-33.9) of young adults (18-25 years) and 18.5% (16.3-21.0) of adults (26 years and above) in Nebraska reported having AMI in the past year (*Figure 1 and 2*). Differences between U.S. and Midwestern peers were not statistically significant.

Figure 1. Percentage of Nebraska, Midwest, and U.S. young adults reporting experiencing any mental illness in the past year, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

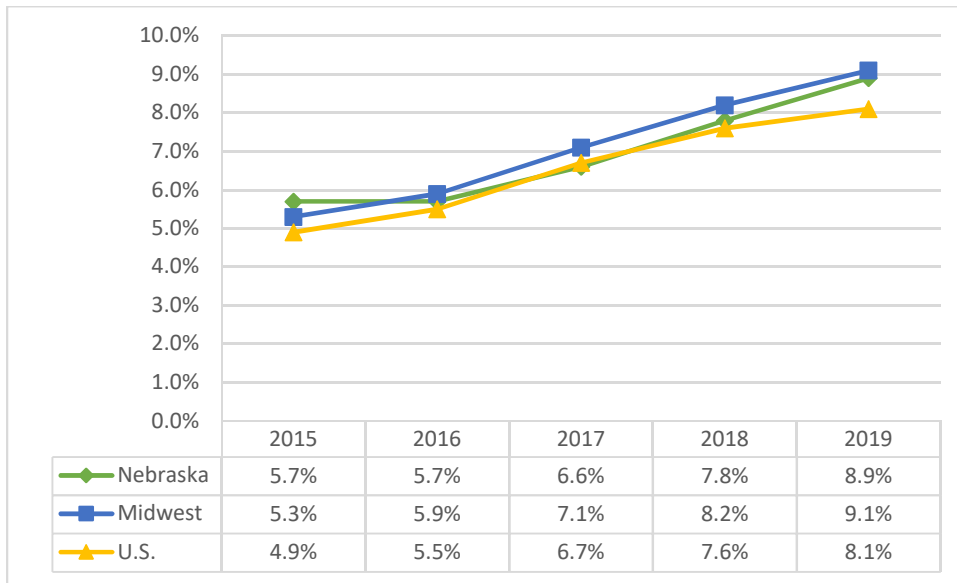
Figure 2. Percentage of Nebraska, Midwest, and U.S. adults reporting experiencing any mental illness in the past year, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

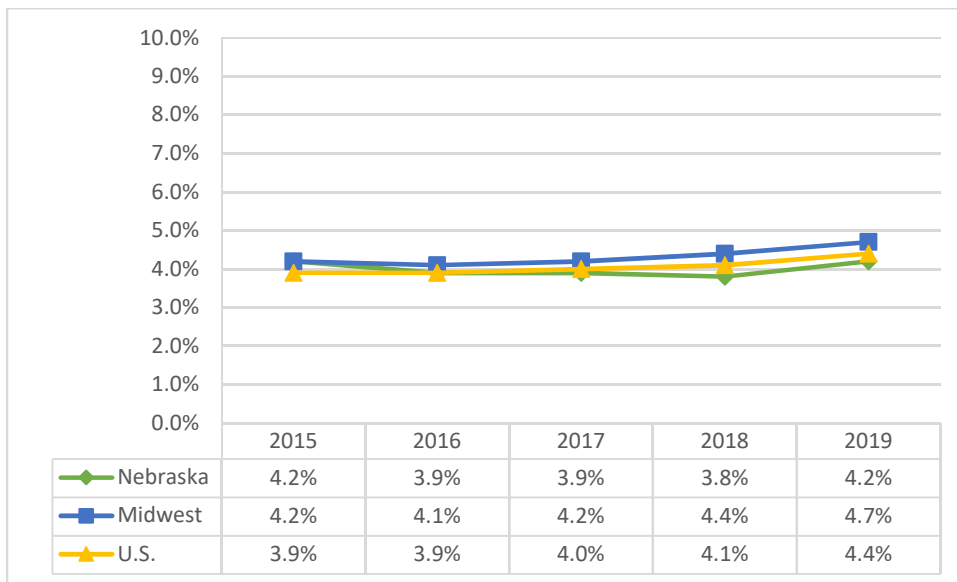
Serious mental illness (SMI) is defined as having a diagnosable mental, behavioral, or emotional disorder resulting in serious functional impairment.⁴ In 2019, 8.9% (8.5 – 9.7) of young adults and 4.2% (3.4 – 5.3) of adults in Nebraska reported having SMI in the past year (*Figure 3 and 4*). The prevalence of SMI among young adults and adults in Nebraska was not significantly different from U.S. and Midwestern peers.

Figure 3. Percentage of Nebraska, Midwest, and U.S. young adults reporting experiencing serious mental illness in the past year, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

Figure 4. Percentage of Nebraska, Midwest, and U.S. adults reporting experiencing serious mental illness in the past year, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

Depression

According to the 2019 Behavioral Risk Factor Surveillance System (BRFSS), 16.2% of Nebraskans and 18.8% of Americans experienced some form of depression in the past year (Table 1).⁵

Table 1. Percentage of Nebraska adults with depression, Behavioral Risk Factor Surveillance System, 2019

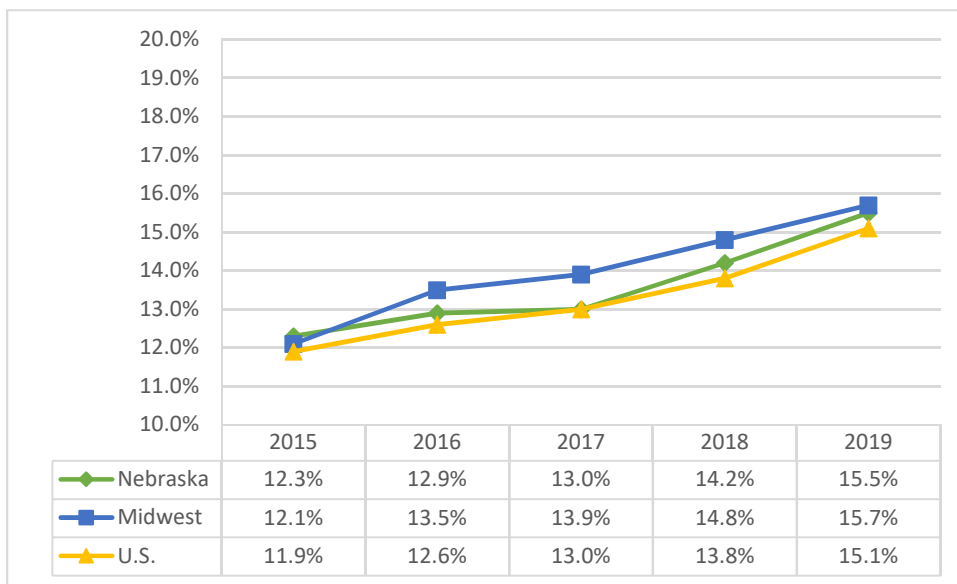
| | Nebraska (%) | U.S. (%) |
|-------------------------------------|--------------|----------|
| Total | 16.2 | 18.8 |
| Gender | | |
| Male | 10.6 | 13.8 |
| Female | 21.7 | 23.6 |
| Age | | |
| 18-24 | 21.5 | 21.8 |
| 25-34 | 19.1 | 20.6 |
| 35-44 | 14.0 | 18.5 |
| 45-54 | 16.4 | 19.0 |
| 55-64 | 17.4 | 19.9 |
| 65+ | 11.5 | 14.7 |
| Race/Ethnicity | | |
| White | 17.3 | 21.3 |
| Black | 12.2 | 15.3 |
| American Indian or Alaskan Native | 18.5 | 23.7 |
| Asian | N/A | 7.1 |
| Native Hawaiian or Pacific Islander | N/A | 13.1 |
| Other | N/A | 19.5 |
| Multiracial | 30.9 | 26.9 |
| Hispanic | 10.5 | 14.7 |
| Education | | |
| Less than H.S. | 13.0 | 21.4 |
| H.S. or G.E.D. | 16.7 | 18.4 |
| Some post-H.S. | 19.7 | 21.2 |
| College Graduate | 12.7 | 15.5 |
| Household Income | | |
| Less than \$15,000 | 28.2 | 30.1 |
| \$15,000-\$249,99 | 23.2 | 25.1 |

| | | |
|-------------------|------|------|
| \$25,000-34,999 | 18.3 | 20.7 |
| \$35,000-\$49,999 | 17.2 | 19.1 |
| \$50,000+ | 12.7 | 15.0 |

Source: CDC, 2019

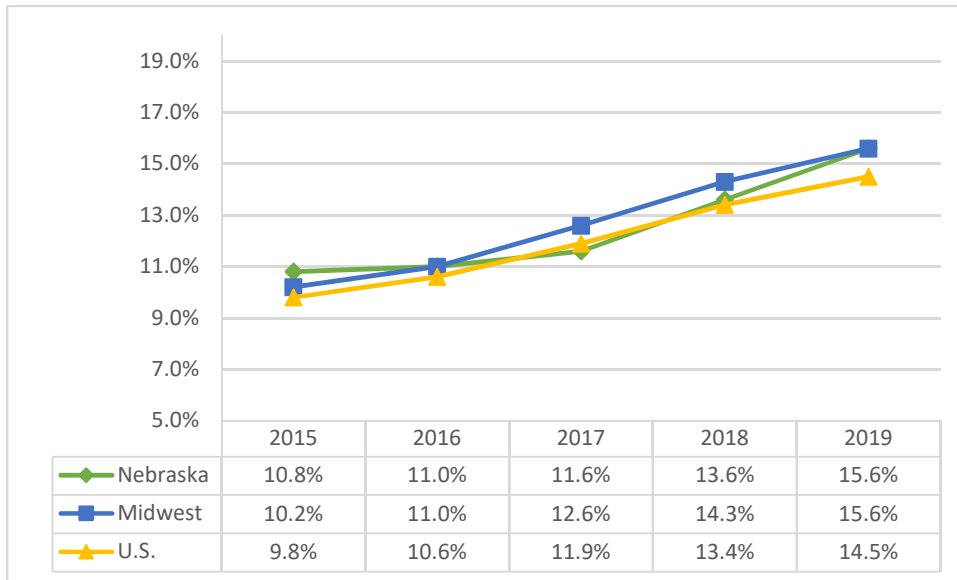
A major depressive episode (MDE) is defined as a period of at least 2 weeks when an individual experiences a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms.⁴ In 2019, 15.5% (13.1-18.2) of Nebraska adolescents (12-17 years) and 15.1% (14.6-15.6) of U.S. adolescents reported experiencing a MDE in the past year (*Figure 5*). Among young adults, 15.6% (13.2-18.4) of Nebraskans and 14.5% (13.9-14.9) of Americans reported MDE (*Figure 6*). Among adults, the prevalence for MDE in the past year was similar [NE: 6.2% (5.1-7.5); U.S.: 6.4% (6.2-6.7)] (*Figure 7*).

Figure 5. Percentage of Nebraska, Midwest, and U.S. adolescents reporting experiencing a major depressive episode in the past year, National Survey on Drug Use and Health, 2015–2019



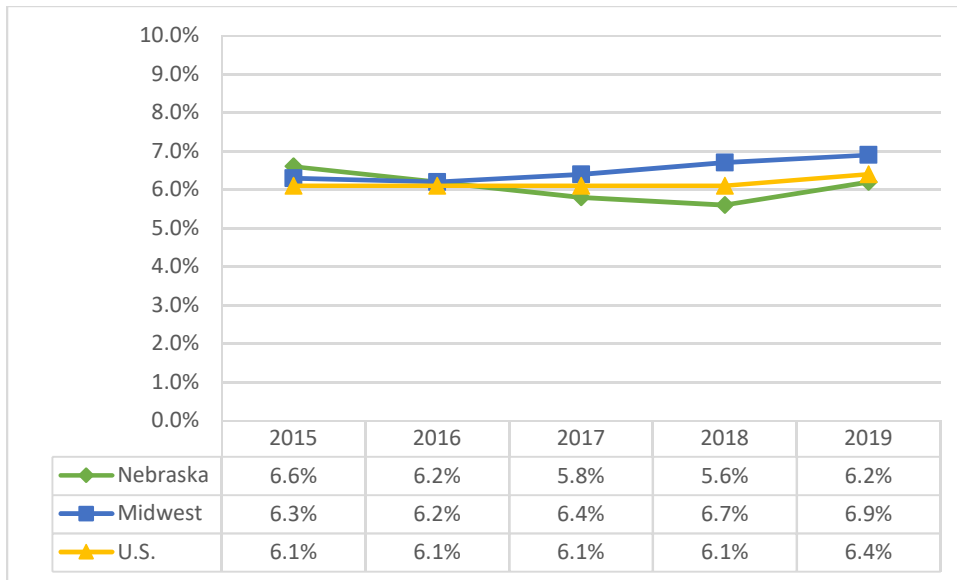
Source: SAMHSA, 2015-2019

Figure 6. Percentage of Nebraska, Midwest, and U.S. young adults reporting experiencing a major depressive episode in the past year, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

Figure 7. Percentage of Nebraska, Midwest, and U.S. adults reporting experiencing major depressive episode in the past year, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

Suicide

Suicide is defined as death caused by self-directed injurious behavior with intent to die as a result of the behavior. It is the tenth leading cause of death in the U.S. and is often associated with mental illness and substance use.⁶ In 2019, nearly 47,500 people died by suicide in the U.S. Although suicide affects individuals of all ages, adolescents and young adults are more likely to contemplate suicide while adults aged 45 to 54 are more likely to die by suicide.

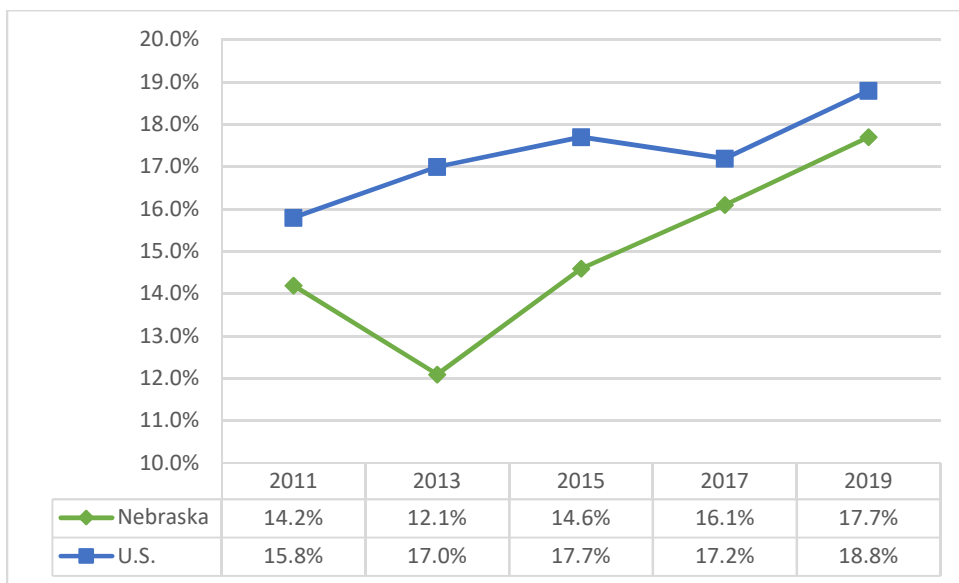
Suicide attempts are often preceded by significant amounts of time considering and planning the act. Among Nebraska high school students, 17.7% (15.4 – 20.2) seriously considered suicide, 15.5% (12.9 – 18.4) made a suicide plan, and 8.6% (6.9 – 10.5) attempted suicide (*Table 2*). National peers reported similar levels of suicidal ideation, planning, and attempts.

Table 2. Percentage of Nebraska and U.S. high school students reporting considering suicide, making suicide plans, and attempting suicide in past year, Youth Risk Behavior Surveillance System, 2019

| | Considered suicide | | Made suicide plan | | Attempted suicide | |
|---------------|--------------------|----------|-------------------|----------|-------------------|----------|
| | Nebraska (%) | U.S. (%) | Nebraska (%) | U.S. (%) | Nebraska (%) | U.S. (%) |
| Total | 17.7 | 18.8 | 15.5 | 15.7 | 8.6 | 8.9 |
| Gender | | | | | | |
| Male | 12.7 | 13.3 | 12.0 | 11.3 | 6.4 | 6.6 |
| Female | 22.8 | 24.1 | 18.8 | 19.9 | 10.0 | 11.0 |
| Grade | | | | | | |
| 9th | 16.0 | 17.7 | 14.1 | 14.8 | 9.6 | 9.4 |
| 10th | 18.9 | 18.5 | 17.7 | 15.4 | 10.6 | 8.8 |
| 11th | 17.5 | 19.3 | 16.0 | 16.4 | 6.8 | 8.6 |
| 12th | 17.9 | 19.6 | 13.8 | 16.2 | 6.3 | 8.5 |

Source: CDC, 2019

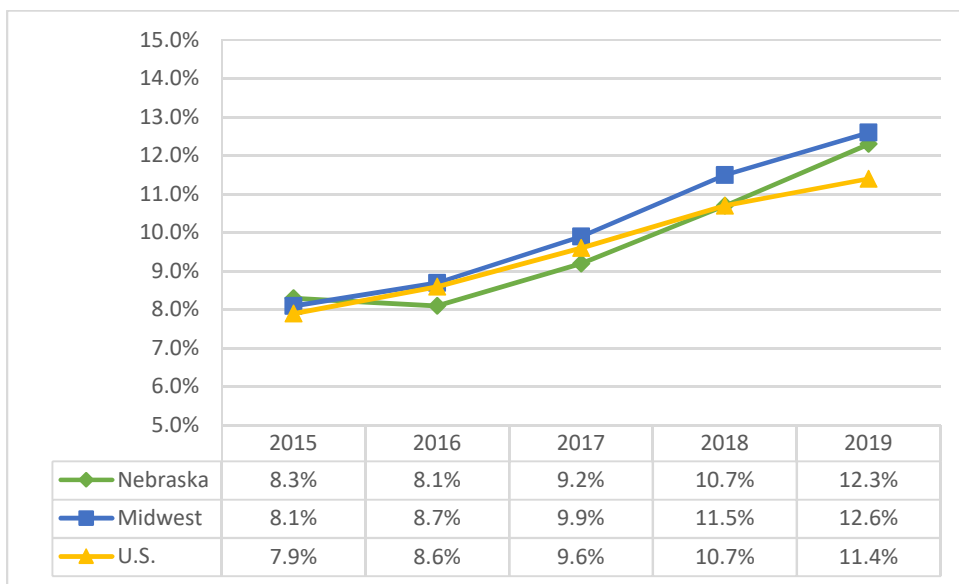
Figure 8. Percentage of Nebraska and U.S. high school students reporting considering suicide in the past year, Youth Risk Behavior Surveillance System, 2011-2019



Source: CDC, 2011-2019

Among Nebraska young adults in 2019, 12.3% (10.1 – 14.8) had serious thoughts of suicide (*Figure 9*), 5.1% (3.9 – 6.7) made suicide plans, and 1.9% (1.3 – 2.7) attempted suicide in the past year. Young adults in the U.S. and Midwest reported similar levels for each measure.

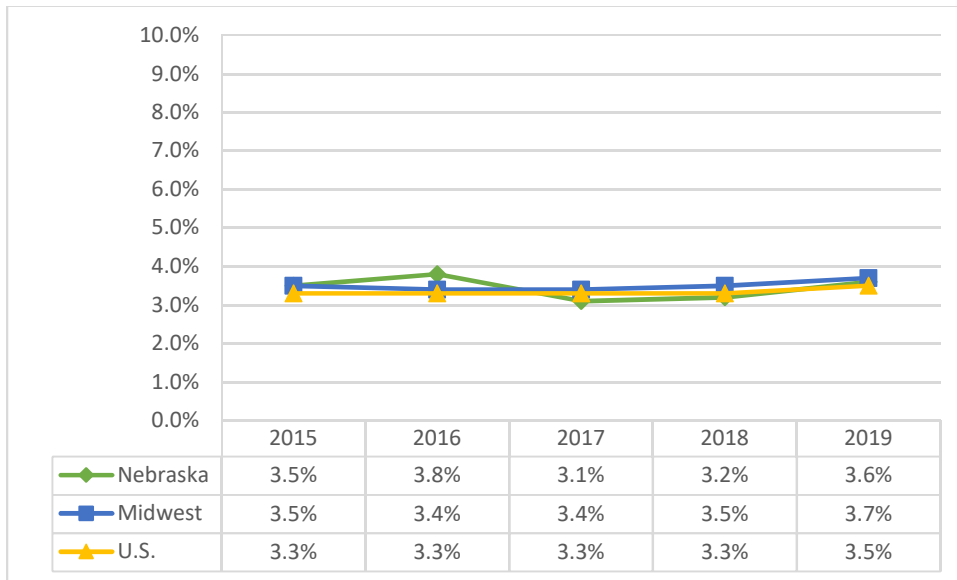
Figure 9. Percentage of Nebraska, Midwest, and U.S. young adults reporting having serious thoughts of suicide in the past year, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

Among Nebraska adults in 2019, 3.6% (2.8 – 4.7) had serious thoughts of suicide (*Figure 10*), 1.4% (0.9 – 2.0) made suicide plans, and 0.5% (0.3 – 0.8) attempted suicide in the past year. Adults in the U.S. and Midwest reported similar levels for each measure.

Figure 10. Percentage of Nebraska, Midwest, and U.S. adults reporting having serious thoughts of suicide in the past year, National Survey on Drug Use and Health, 2015–2019



Source: SAMHSA, 2015-2019

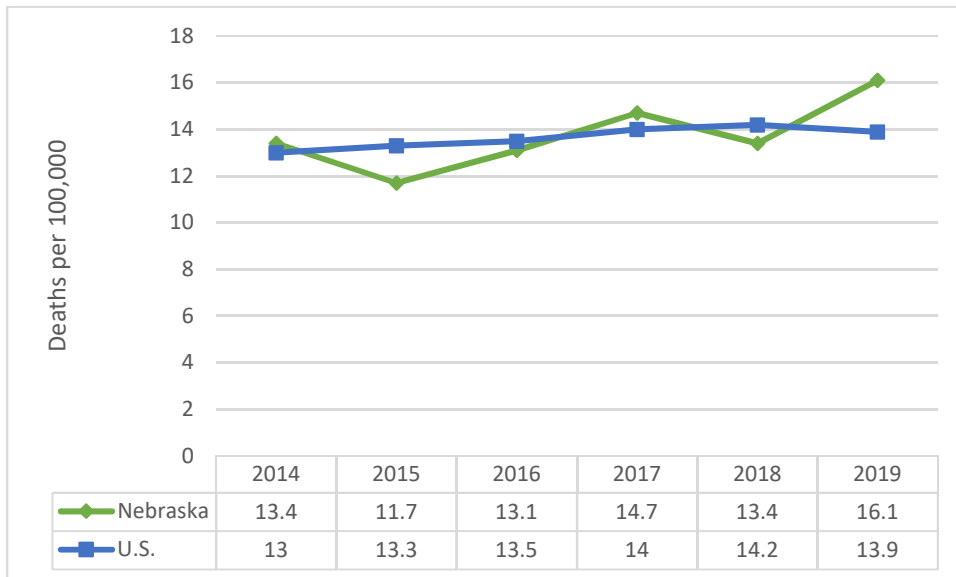
According to the National Institute of Mental Health (NIMH), suicide rates in both Nebraska and the U.S. have increased.⁶ In 2019, 309 Nebraskans died by suicide, and the age-adjusted mortality rate was 16.1 per 100,000 (25th), which was higher than the national average of 13.9 per 100,000 (*Figure 11*). According to the Nebraska Violent Death Reporting System⁸ (NeVDRS), of those who died by suicide in 2018, the average age was 46.5 years. The highest prevalence was among males as compared to females, and non-Hispanic Whites as compared to other races and ethnicities (*Table 2*).

Table 3. Percentage of suicide mortality in Nebraska, Nebraska Violent Death Reporting System, 2018

| | Nebraska (%) |
|----------------------------------|--------------|
| Age (years) | 46.4 |
| Gender | |
| Male | 82.0 |
| Female | 17.8 |
| Race | |
| White | 95.2 |
| African American | 1.5 |
| American Indian or Alaska Native | 1.1 |
| Asian or Pacific Islander | 1.5 |
| Multiracial | 0.7 |
| Ethnicity | |
| non-Hispanic | 93.7 |
| Hispanic | 6.3 |

Source: Nebraska DHHS, 2018

Figure 11. Age-adjusted suicide mortality rate per 100,000 population in Nebraska and the U.S., CDC, 2014–2019



Source: CDC, 2014-2019

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3. National Survey on Drug Use and Health | CBHSQ Data. Accessed April 2, 2021. <https://www.samhsa.gov/data/data-we-collect/nsduh-national-survey-drug-use-and-health>
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6. NIMH » Suicide. Accessed April 2, 2021. <https://www.nimh.nih.gov/health/statistics/suicide.shtml>
7. Suicide Rates by Industry and Occupation — National Violent Death Reporting System, 32 States, 2016 | MMWR. Accessed April 2, 2021. <https://www.cdc.gov/mmwr/volumes/69/wr/mm6903a1.htm>
8. Violent Death Reporting. Accessed April 2, 2021. <https://dhhs.ne.gov/Pages/Violent-Death-Reporting.aspx>

APPENDIX 1. Data Sources List

| Data Set | Data Source | Date | Geographical Coverage |
|--|--|------------------|------------------------------|
| Behavioral Risk Factor Surveillance System (BRFSS) | Centers for Disease Control and Prevention | 2014 - 2019 | U.S. Nebraska |
| CDC Wonder: Multiple Cause of Death | National Center for Health Statistics | 2019 | U.S. Nebraska |
| National Survey on Drug Use and Health (NSDUH) | Substance Abuse and Mental Health Services Administration | 2015 - 2019 | U.S. Midwest Nebraska |
| Nebraska Adult Tobacco Survey (ATS) | University of Nebraska-Lincoln Bureau of Sociological Research | 2018 - 2019 | Nebraska |
| Nebraska Community Alcohol Opinion Survey (NCAOS) | University of Nebraska-Lincoln Bureau of Sociological Research | 2014-2019 | Nebraska |
| Nebraska Drug Related Offenses | Nebraska Office of Probation Administration | 2016 - 2020 | Nebraska |
| Nebraska Suicide Mortality | Nebraska Violent Death Reporting System | 2018 | Nebraska |
| Nebraska Uniform Crime Reporting (UCR) | Nebraska Commission on Law Enforcement and Criminal Justice | 2017 - 2019 | Nebraska |
| Nebraska Vital Statistics | Nebraska Department of Health and Human Services Vital Records and Statistics | 2016 2014 - 2020 | Nebraska |
| Nebraska Vehicular Crashes | Nebraska Department of Transportation | 2018 - 2019 | Nebraska |
| Nebraska Young Adult Alcohol Opinion Survey (NYAAOS) | Nebraska Department of Health and Human Services Division of Behavioral Health | 2016 - 2020 | Nebraska |
| Nebraska Youth Tobacco Survey (YTS) | University of Nebraska-Lincoln Bureau of Sociological Research | 2018 - 2019 | Nebraska |
| Provisional Drug Overdose | National Center for Health | 2015 – 2020 | U.S. |

| | | | |
|---|--|-------------|------------------|
| Deaths | Statistics | | Nebraska |
| Suicide Mortality | Centers for Disease Control and Prevention | 2014 - 2018 | U.S. |
| Youth Risk Behavior Surveillance System (YRBSS) | Centers for Disease Control and Prevention | 2011 - 2019 | U.S. Nebraska |

APPENDIX 2. Nebraska County Population, Vintage 2019 Bridged-Race Postcensal Population Estimates, 2019

| County | Total Population | Adolescents (12-17) | Young adult (18-25) | Adult (26+) |
|------------------|-------------------------|----------------------------|----------------------------|--------------------|
| Adams | 31,363 | 2,523 | 3,770 | 20,250 |
| Antelope | 6,298 | 485 | 526 | 4,286 |
| Arthur | 463 | 42 | 50 | 296 |
| Banner | 745 | 51 | 55 | 508 |
| Blaine | 465 | 26 | 33 | 346 |
| Boone | 5,192 | 404 | 402 | 3,587 |
| Box Butte | 10,783 | 882 | 880 | 7,165 |
| Boyd | 1,919 | 118 | 165 | 1,399 |
| Brown | 2,955 | 255 | 215 | 2,103 |
| Buffalo | 49,659 | 3,781 | 8,161 | 29,919 |
| Burt | 6,459 | 532 | 486 | 4,520 |
| Butler | 8,016 | 657 | 689 | 5,484 |
| Cass | 26,248 | 2,238 | 2,160 | 17,932 |
| Cedar | 8,402 | 729 | 674 | 5,609 |
| Chase | 3,924 | 351 | 318 | 2,634 |
| Cherry | 5,689 | 432 | 437 | 3,915 |
| Cheyenne | 8,910 | 688 | 732 | 6,149 |
| Clay | 6,203 | 538 | 493 | 4,168 |
| Colfax | 10,709 | 1,031 | 1,044 | 6,502 |
| Cuming | 8,846 | 769 | 801 | 5,895 |
| Custer | 10,777 | 902 | 807 | 7,370 |
| Dakota | 20,026 | 1,799 | 2,098 | 12,094 |
| Dawes | 8,589 | 520 | 2,003 | 5,089 |
| Dawson | 23,595 | 2,174 | 2,252 | 14,951 |
| Deuel | 1,794 | 146 | 110 | 1,294 |
| Dixon | 5,636 | 488 | 495 | 3,698 |
| Dodge | 36,565 | 2,990 | 3,796 | 23,932 |
| Douglas | 571,327 | 47,028 | 60,280 | 365,360 |
| Dundy | 1,693 | 109 | 155 | 1,232 |
| Fillmore | 5,462 | 404 | 421 | 3,954 |

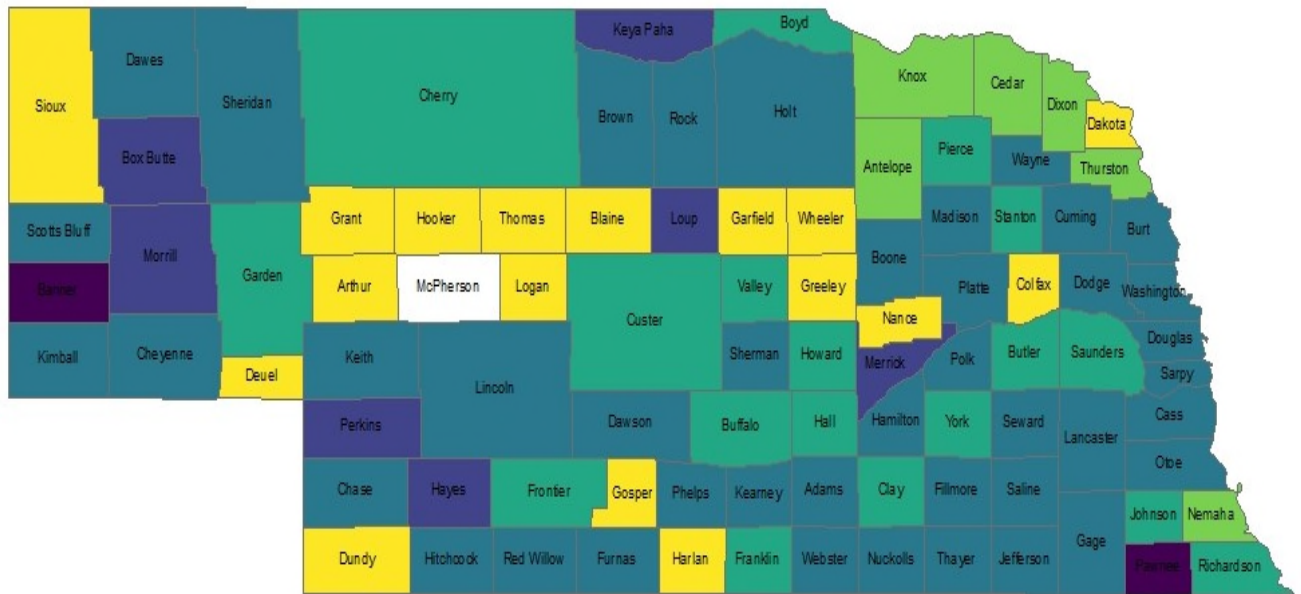
| | | | | |
|-------------------|---------|--------|--------|---------|
| Franklin | 2,979 | 189 | 205 | 2,178 |
| Frontier | 2,627 | 177 | 315 | 1,807 |
| Furnas | 4,676 | 393 | 363 | 3,274 |
| Gage | 21,513 | 1,675 | 1,694 | 14,930 |
| Garden | 1,837 | 120 | 114 | 1,371 |
| Garfield | 1,969 | 134 | 174 | 1,437 |
| Gosper | 1,990 | 165 | 149 | 1,413 |
| Grant | 623 | 45 | 32 | 437 |
| Greeley | 2,356 | 180 | 189 | 1,626 |
| Hall | 61,353 | 5,663 | 5,800 | 38,635 |
| Hamilton | 9,324 | 778 | 809 | 6,264 |
| Harlan | 3,380 | 246 | 234 | 2,439 |
| Hayes | 922 | 63 | 66 | 640 |
| Hitchcock | 2,762 | 229 | 171 | 1,964 |
| Holt | 10,067 | 837 | 782 | 6,738 |
| Hooker | 682 | 51 | 45 | 494 |
| Howard | 6,445 | 542 | 447 | 4,443 |
| Jefferson | 7,046 | 530 | 517 | 5,013 |
| Johnson | 5,071 | 344 | 453 | 3,667 |
| Kearney | 6,495 | 584 | 536 | 4,351 |
| Keith | 8,034 | 602 | 563 | 5,823 |
| Keya Paha | 806 | 63 | 57 | 602 |
| Kimball | 3,632 | 256 | 284 | 2,581 |
| Knox | 8,332 | 711 | 618 | 5,687 |
| Lancaster | 319,090 | 24,054 | 52,735 | 194,166 |
| Lincoln | 34,914 | 2,919 | 2,926 | 23,830 |
| Logan | 748 | 73 | 58 | 515 |
| Loup | 664 | 47 | 61 | 464 |
| McPherson | 494 | 47 | 46 | 358 |
| Madison | 35,099 | 2,845 | 3,679 | 22,463 |
| Merrick | 7,755 | 628 | 642 | 5,373 |
| Morrill | 4,642 | 365 | 407 | 3,198 |
| Nance | 3,519 | 278 | 268 | 2,475 |
| Nemaha | 6,972 | 488 | 906 | 4,508 |
| Nuckolls | 4,148 | 304 | 310 | 3,024 |
| Otoe | 16,012 | 1,320 | 1,340 | 10,829 |
| Pawnee | 2,613 | 184 | 191 | 1,857 |
| Perkins | 2,891 | 244 | 225 | 1,953 |
| Phelps | 9,034 | 733 | 802 | 6,102 |
| Pierce | 7,148 | 619 | 588 | 4,766 |
| Platte | 33,470 | 2,899 | 3,143 | 21,510 |
| Polk | 5,213 | 451 | 426 | 3,616 |
| Red Willow | 10,724 | 809 | 1,123 | 7,223 |
| Richardson | 7,865 | 574 | 585 | 5,596 |
| Rock | 1,357 | 107 | 84 | 984 |

| | | | | |
|---------------------|---------|--------|--------|---------|
| Saline | 14,224 | 1,247 | 1,876 | 8,666 |
| Sarpy | 187,196 | 17,244 | 18,257 | 118,006 |
| Saunders | 21,578 | 1,820 | 1,739 | 14,577 |
| Scotts Bluff | 35,618 | 3,004 | 3,298 | 23,505 |
| Seward | 17,284 | 1,422 | 2,462 | 10,748 |
| Sheridan | 5,246 | 402 | 416 | 3,675 |
| Sherman | 3,001 | 239 | 204 | 2,157 |
| Sioux | 1,166 | 81 | 105 | 859 |
| Stanton | 5,920 | 514 | 509 | 3,968 |
| Thayer | 5,003 | 407 | 365 | 3,473 |
| Thomas | 722 | 55 | 47 | 512 |
| Thurston | 7,224 | 823 | 821 | 3,818 |
| Valley | 4,158 | 321 | 303 | 2,905 |
| Washington | 20,729 | 1,840 | 1,665 | 14,058 |
| Wayne | 9,385 | 617 | 2,176 | 5,367 |
| Webster | 3,487 | 253 | 284 | 2,443 |
| Wheeler | 783 | 47 | 48 | 585 |
| York | 13,679 | 1,081 | 1,410 | 9,092 |

Source: National Center for Health Statistics, 2019

Appendix 3. Drug Overdose Maps

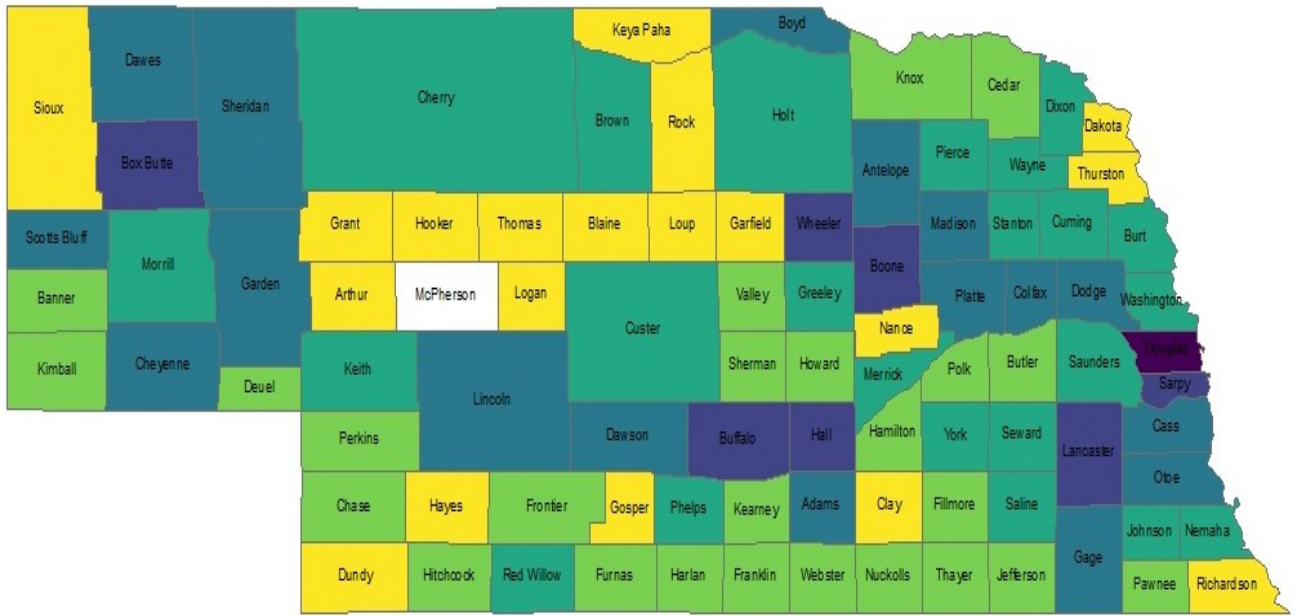
Map 1. Rate of unintentional drug overdose in the emergency department by county, Centers for Disease Control and Prevention, Nebraska, 2019



Drug Overdoses / County Population



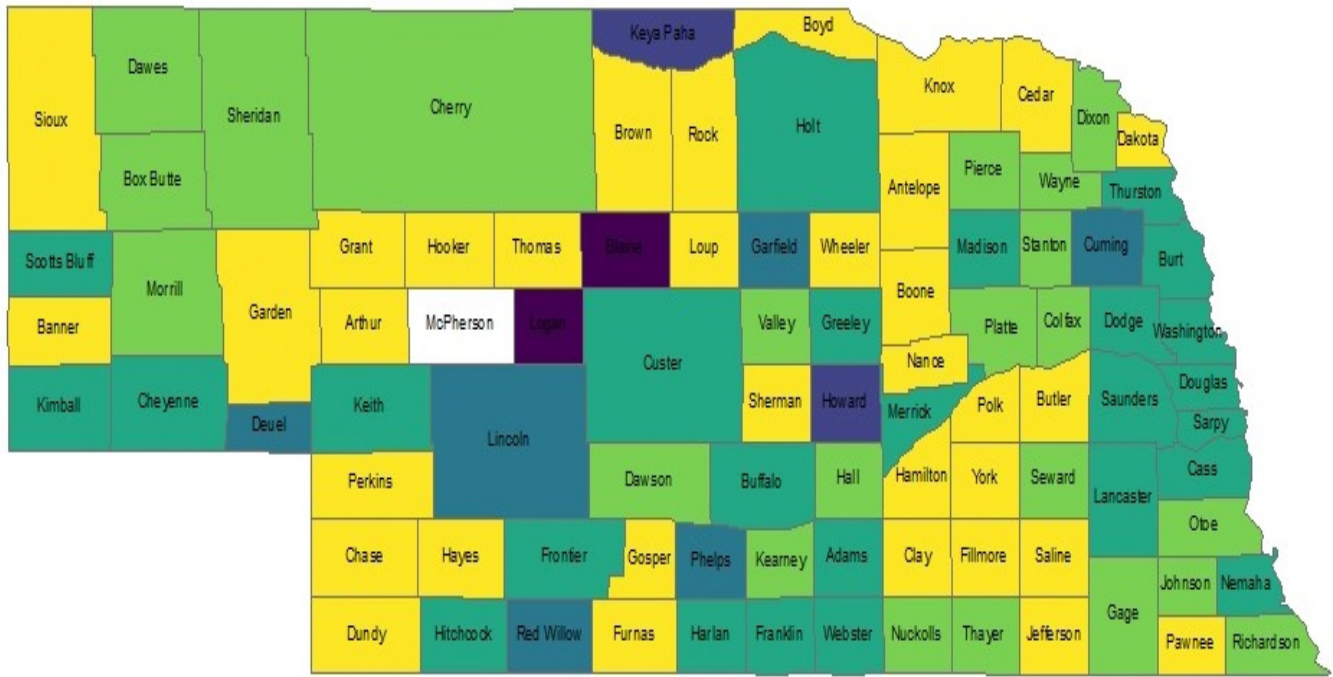
Map 2. Rate of intentional drug overdose in the emergency department by county, Centers for Disease Control and Prevention, Nebraska, 2019



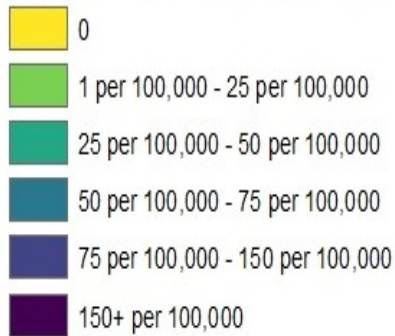
Drug Overdoses / County Population



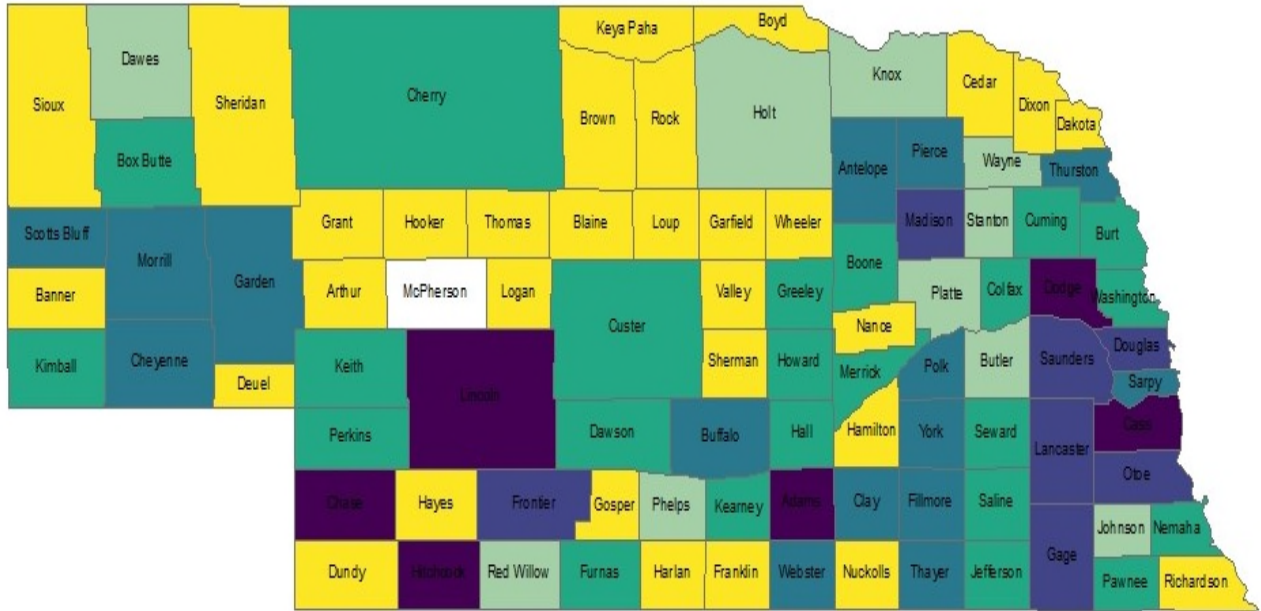
Map 3. Rate of in-patient unintentional drug overdose by county, Centers for Disease Control and Prevention, Nebraska, 2019



Drug Overdoses / County Population



Map 4. Rate of in-patient intentional drug overdose by county, Centers for Disease Control and Prevention, Nebraska, 2019



Drug Overdoses / County Population

