
CHANGES IN SUBSTANCE USE AMONG NEBRASKANS AND THE LOCAL REGION FROM 2008-2009 TO 2017-2018

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CONTENT WARNING

The following summary describes empirical findings related to the prevalence of mental health episodes and suicidal ideation which may be triggering for some readers.

EXECUTIVE SUMMARY

Researchers at the Rural Drug Addiction Research Center (RDAR) at the University of Nebraska-Lincoln (UNL) have utilized national mental health and substance abuse survey reports to summarize recent findings regarding trends in prevalence for a variety of public health indicators. Prevalence estimates for behaviors related to mental health and substance use were taken from the recent National Survey on Drug Use and Health (NSDUH) publication “Comparison of 2008-2009 and 2017-2018 Population Percentages (50 States and the District of Columbia).”¹ NSDUH’s annual survey, the data from which is used for this study’s analysis, is sponsored and overseen by The Substance Abuse and Mental Health Services Administration of the U.S. Department of Health and Human Services. The specific methodology of the NSDUH annual survey as well as their comparison analysis presented in this recent publication is described in the section below.

RDAR researchers utilized this comparison analysis to examine trends in mental health and substance use in Nebraska, comparing Nebraska prevalence estimates to regional and national trends over the past decade. The following are some key findings discussed in the article regarding trends in prevalence estimates of public health indicators in Nebraska:

- Marijuana use is estimated to have significantly increased among those aged 18-25 in Nebraska, more so than in neighboring states and the country as a whole, while prevalence among youth aged 12-17 has not changed significantly in the past 10 years;
- Past-month alcohol use has decreased among youth aged 12-17 in Nebraska, mirroring similar downward trends throughout the region and nationally;

- Estimates of alcohol use disorder prevalence have significantly decreased for Nebraskans under the age of 26;
- Among the youngest age groups—including all those under 26—prevalence of major depressive episodes is estimated to have increased in Nebraska, the region, and nationally while Nebraskans over the age of 26 are estimated to be experiencing major depressive episodes at near the same rate as 10 years ago;
- Prevalence of suicidal ideation has increased significantly among Nebraskans aged 18-25, a trend mirrored throughout the nation;
- Estimated prevalence of pain reliever misuse in Nebraska is about average for regional prevalence rates and near the national prevalence;
- Heroin use in Nebraska is estimated to be lower than prevalence in neighboring states and falls below national rates for all age groups.

METHODS

The National Survey on Drug Use and Health (NSDUH) is an annual survey designed to produce estimates of substance use and mental health prevalence in the United States. Eligible participants are 12 years old or older who live in a household or in a non-institutionalized group quarters. This latter group includes shelters, boarding homes, college dormitories, halfway houses, and migratory labor camps. However, this survey excludes people without a fixed address, such as military personnel on active duty, people in jails, long-term care hospitals, and individuals who are homeless and not staying in shelters. The survey produces estimates that are generalizable to the overall United States and for each of the 50 states and the District of Columbia. Interviews are conducted in two phases. First an interviewer visits a

selected address and screens the occupants for eligibility and to determine how many people in the household will take the survey. The second phase is the interview itself which is conducted entirely using an audio computer-assisted self-interviewing (ACASI). Participants listen to the survey questions using headphones and then enter their answers directly into the electronic survey. This method increases the privacy of the participant and the confidentiality of their responses. A detailed explanation of the 2018 methods are available in the 2018 NSDUH Annual National Report².

TRENDS IN SUBSTANCE USE AND MENTAL HEALTH

Marijuana Use in the Past Year and Past Month

According to the comparison of NSDUH estimates from the 2018-2019 survey years with the comparable figures from 2008-2009, changes in prevalence of marijuana use in Nebraska has varied by age group. The recent NSDUH publication demonstrates that past-year use of marijuana has not significantly changed for those Nebraskans aged 12-17. Prevalence of past-year marijuana use for this age group is estimated to be 12.46% in the state. However, the report does show a meaningful increase in past-year marijuana use prevalence in Nebraska within two other age groups: individuals 18-25 years old and above the age of 26. Among those aged 18-25, prevalence of past-year use has doubled over the past decade—from 14.63% to 31.94%—according to NSDUH estimates. Prevalence of past-year marijuana use among those 26 and older has also seen a significant increase in the state, although to a lesser magnitude than those in the 18-25 age group. Among this age group surveyed by NSDUH, prevalence estimates of past-year marijuana use in Nebraska have increased from 6.12% in 2008-2009 to 9.31% in 2018-2019.

For the most part, these trends in past-year marijuana use reflect the prevalence variation over the past decade in the region as reported by NSDUH. Regionally, there has been no significant change in past-year marijuana use among 12-17 yearolds despite a small yet significant decrease in prevalence of marijuana use nationally, from 13.37% to 12.45%. Among those aged 26 and older, past-year use of marijuana has increased significantly in every state in the region as well as nationally. On the other hand, Nebraska has experienced a unique increase in past-year marijuana use among the age group of 18-25 yearolds. Few states in the region, including Iowa and Colorado, have also experienced a significant increase in marijuana use prevalence within this age group, and the magnitude of this trend in Nebraska is far greater

than the changes seen in these states. However, this increase in use among 18-25 yearolds in Nebraska is reflected in the national trend as NSDUH reports a significant increase in national prevalence of past-year marijuana use, from 7.38% to 12.73%, across the past decade.

In addition to requesting information on past-year use of marijuana, NSDUH also asks respondents about past-month use of the drug to get a better picture of the prevalence of more frequent and regular use. Overall, the recent decade-long comparison results show that the trends in past-month marijuana use at the state, regional, and national level generally mirror the trends in past-year marijuana use. Nebraska, other states in the region, and the United States as a whole have not experienced any significant change in past-month marijuana use among the youngest age group, 12-17 year olds. Similar to the results for past-year marijuana use, Nebraska is also a standout in the region when reviewing 10-year trends for past-month use prevalence among those aged 18-25. In the past decade, NSDUH prevalence estimates of past-month marijuana use within this age group in Nebraska have risen from 14.7% reporting some past-month use of the drug to 20.54%, a statistically significant increase. A few other states in the region also saw a similarly significant increase in past-month use of marijuana, including Iowa, Colorado, and South Dakota. NSDUH also reports that past-month use of marijuana within this age group has also trended upward on a national level, increasing significantly from 17.42% in 2008-2009 to 22.12% in 2018-2019.

With regard to respondents aged 26 or older, 10-year trends in past-month marijuana use again mirror trends in past-year marijuana use as reported by NSDUH. Among individuals 26+, Nebraska saw a statistically significant increase in past-month marijuana use from an estimated 3.5% prevalence in 2008-2009 to 6.3% a decade later. All other neighboring states experienced similarly significant increases in past-month prevalence among this age group throughout the past decade, and the trend was also reflected in the nationwide trend. Nationally, past-month use of marijuana among those aged 26+ nearly doubled from 4.42% in the 2008-2009 survey years to the most recent estimate of 8.25%.

Cocaine Use in the Past Year

The only other illicit drug for which the NSDUH study allows decade-long prevalence comparison is cocaine. According to the most recent survey results, past-year cocaine use by the youngest respondent age group has been cut nearly in half throughout the past 10 years. In Nebraska, this has

resulted in the estimated prevalence of cocaine use among this age group to decline from 1.1% to 0.54%. While there has been a similar, significant decline in cocaine use among youth throughout the country and region, Colorado did not experience a similarly meaningful downward trend.

Interestingly, there were no statistically significant trends in past-year cocaine use prevalence in any other age group at the state, regional, or national level. While the results were not found to be significant, NSDUH did estimate that cocaine use prevalence has actually increased for older Nebraskans during the past decade. Among those aged 18-25, past-year cocaine use prevalence estimates have increased from 4.61% to 6.2%. For those over the age of 26, estimated prevalence of cocaine use has also slightly increased in the past 10 years from 1.06% to 1.23%, according to NSDUH results. Again, these slight increases in cocaine use prevalence estimates among older Nebraskans do not constitute a statistically significant trend. However, such evidence could point to a growing trend worth monitoring.

Alcohol in the Past Month

NSDUH's comparison study of survey results from the past decade show generally declining prevalence of past-month alcohol use among youth. In Nebraska, only 9.53% of respondents aged 12 to 17 reported using alcohol in the past month in the 2017-2018 survey, a significant decrease from 13.81% reporting such use in the 2008-2009 survey years. This decline is mirrored in all neighboring states' results as well as nationally: past-month alcohol use for this at-risk age group has experienced a significant downward trend throughout the nation. For those between the ages of 18 and 25, however, decade-long trend results vary throughout the region.

According to the 10-year NSDUH study, Nebraska has not experienced a significant change in past-month alcohol use among this age group, with current survey estimates around 62.5% prevalence for those 18 to 25 years old. Within the region, Iowa and Colorado similarly saw no meaningful change in past-month alcohol use prevalence within this age range. However, Missouri, Kansas, Wyoming, and South Dakota all saw significant decreases in the prevalence of alcohol use by individuals in the same age range. The declining trend in alcohol use prevalence in these four regional states resulted in an average of a 10.5% decrease in prevalence estimates in the past 10 years. This trend was mirrored in national results as well as NSDUH reports a significant decrease in past-month alcohol use among those aged 18 to 15 throughout the United States.

NSDUH results for past-month alcohol use estimates throughout the past decade for those over the age of 26 demonstrate differing phenomena as compared to the youth results. National results for alcohol use prevalence among adults 26 and older show no meaningful change, and most states in the region also saw alcohol use prevalence in this age group stagnate. Nebraska's results, however, demonstrate a small yet significant increase in past-month alcohol use prevalence estimates throughout the past decade. According to the NDSUH comparison results, alcohol use prevalence among this age group has increased from 56.67% in 2008-2009 to 61.9% in 2017-2018. Although this upward trend is small in magnitude, it is worth noting as an outlier from the general stagnating trend.

Alcohol Use Disorder

While past-month alcohol use is widespread and isn't indicative of frequency or other risk factors of use behaviors, NSDUH estimates of alcohol use disorder prevalence likely present a better picture of risk behaviors. With this in mind, results from the decade-long comparison of NSDUH alcohol use disorder prevalence estimates demonstrate a reduction in risky alcohol use across the country. Regionally, alcohol use disorder among the youngest respondent age group—youth aged 12 to 17—has declined in the past decade by about 66% in each state. In Nebraska, this change was seen in the decrease in alcohol use disorder prevalence among youth from 5.65% in 2008-2009 to only 1.86% in 2017-2018. Among young adults between the ages of 18 to 25, alcohol use disorder has also significantly trended downward according to NSDUH prevalence estimates. While the magnitude of change does not seem to be as large among this age group, alcohol use disorder prevalence decreased in every regional state. In the past 10 years, Nebraska saw alcohol use disorder prevalence decrease by 35% from 19.05% prevalence among those aged 18 to 25 to only 12.35% in the most recent survey period.

Among the eldest age group of NSDUH survey respondents, alcohol use disorder did not significantly change in Nebraska or most neighboring states. The only regional state that experienced a significant change in alcohol use disorder prevalence according to the NSDUH 10-year comparisons is Kansas, where alcohol use disorder prevalence fell from 6.27% to 4.66% in the past decade. With regard to national trends, alcohol use disorder prevalence nationally mirrored Nebraska and regional trends among age groups 12-17 and 18-25, seeing a significant decline in the disorder across the past 10 years. For those respondents 26 and older,

alcohol use disorder prevalence did significantly decrease nationally—despite the region seeing little meaningful change in prevalence estimates—according to the NSDUH study.

Major Depressive Episode

The NSDUH study also provides prevalence estimates for multiple mental health indicators which help to illustrate trends in regional and national issues with mental health. One mental health indicator studied by NSDUH is the prevalence of major depressive episodes in the past year. The 10-year NSDUH comparison study demonstrates a significant increase in the prevalence of past-year major depressive episodes among youth statewide, regionally, and across the United States. Among respondents aged 12-17, NSDUH estimates that the prevalence of major depressive episodes in Nebraska has significantly increased from 8.2% to 14.2%. Similarly, every neighboring state in the region experienced an increase in the mental health indicator within this age group that mirrors the significance and magnitude of the trend in Nebraska. Nationally, prevalence estimates of major depressive episodes have also significantly increased by 68% throughout the past decade.

This trend in past-year major depressive episode prevalence is mirrored in the NSDUH comparison study results for the age group of 18-25 year olds. For this age group, prevalence estimates of the mental health indicator have also significantly risen across the country. In Nebraska, it is estimated that major depressive episode prevalence has increased from 7.59% to 13.55% throughout the past 10 years. This statistically significant trend has been demonstrated regionally as well with every neighboring state experiencing a significant increase of similar magnitude. Throughout the country, prevalence estimates of past-year major depressive episodes have increased meaningfully by about 63% since the 2007-2008 survey years.

These trends in increasing prevalence of major depressive episodes in youth populations across the United States are not mirrored in older populations according to the NSDUH 10 year prevalence estimates. In Nebraska, for example, prevalence estimates of episodes among those 26 years and older have insignificantly dropped from 6.07% to 5.64%. Only one state in the region has experienced a significant change in the prevalence of the disorder among older respondents. In the past decade, we have also seen no meaningful national change in prevalence estimates of the mental health indicator among this older age group.

Suicide Ideation

In addition to Major Depressive Episodes, the NSDUH survey also asks respondents to report whether or not they have had serious thoughts of suicide in the past year. NSDUH only asks this question of survey respondents older than 18, so there is no data to indicate any trends in suicidal ideation among youth aged 12 to 17. However, according to NSDUH data of 18-25 year olds, prevalence of past-year suicidal ideation among young Nebraskans has significantly increased from 6.04% to 10.74% in the past 10 years. This trend is mirrored in both regional and national results of prevalence estimate trends of serious thoughts of suicide among 18-25 year olds: every neighboring state has experienced a 10-year change in prevalence with similar significance and magnitude. Those 26 and older were also asked to report past-year suicidal ideation in the NSDUH survey. However, according to the NSDUH comparison study of the past decade's trends, prevalence estimates among this older group have not changed significantly in Nebraska, other neighboring states, or nationally. In Nebraska, prevalence of serious thoughts of suicide in the past year among those over 25 years old is estimated by NSDUH to be around 3.15%.

CURRENT PREVALENCE OF OTHER SUBSTANCES

The NSDUH did not release comparisons from the last decade for prescription medicine misuse, methamphetamine use, or heroin use in the past year. However, a separate report shows estimates for these substances for the 2017-2018 reporting period³. We report each estimated percent of the population and the 95% confidence interval (95% CI) for that estimate.

Misuse of Prescription Medicines in the Past Year

The recent NSDUH publication also provides the most up-to-date prevalence estimates for past-year misuse of prescription medicines, specifically pain relievers. Among those aged 12-17, past-year pain reliever misuse prevalence is estimated to be around 3.26% (95% CI: 2.32% – 4.58%) in Nebraska. The state's prevalence among this group is close to the regional average and just above the national prevalence estimate of 2.93% (95% CI: 2.71% - 3.17%). For Nebraskans 18-25 years old, prevalence of past-year pain reliever misuse is estimated by NSDUH to be 6.86% (95% CI: 5.39% - 8.70%). Once again, this prevalence puts Nebraska in the middle of regional prevalence estimates and is higher than the national estimate of 6.32% (95% CI: 6.00% - 6.65%). Finally, among those aged 26 and older, past-year pain reliever misuse prevalence is estimated to be 3.17% (95% CI: 2.42% – 4.14%) in Nebraska. Prevalence of pain reliever

misuse among Nebraskans 26 or older is also lower than the most recent estimate of national prevalence of 3.56% (95% CI: 3.40% - 3.73%).

Methamphetamine Use in the Past Year

The most recent NSDUH estimates for past-year methamphetamine use show that prevalence is small state-wide, regionally, and nationally. Prevalence of past-year methamphetamine use is estimated to be 0.18% (95% CI: 0.09% - 0.34%) among Nebraskans aged 12-17, matching the national prevalence estimate for the age group. Prevalence rates for those aged 18-25, however, are estimated to be higher. In Nebraska, 1.44% (95% CI: 0.79% - 2.60%) of individuals aged 18-25 are estimated to have used methamphetamine in the past year. Among those over the age of 26, prevalence of past-year methamphetamine use is only 0.6% (95% CI: 0.31% - 1.13%) in Nebraska. Nebraska's estimated methamphetamine use prevalence falls just under the national average of 0.65% (95% CI: 0.58% - 0.72%).

Heroin Use in the Past Year

Past-year heroin use prevalence is also estimated to be quite low among Nebraskan youth. The most recent NSDUH estimates state that around 0.04% (95% CI: 0.01% - 0.13%) of Nebraskans aged 12-17 have used heroin in the past year. The national estimate is 0.05% (95% CI: 0.03% - 0.05%). Among individuals 18-25 years old in Nebraska, it is estimated that 0.48% (95% CI: 0.23% - 0.99%) have used heroin in the past year. The national estimate is 0.54% (95% CI: 0.44% - 0.66%) among the same age group. Finally, prevalence of past-year heroin use among those aged 26 and older in Nebraska is estimate by NSDUH to be 0.2% (95% CI: 0.08% - 0.53%). The national prevalence estimate for the same age range is 0.3% (95% CI: 0.25% - 0.36%).

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