

South Dakota
State Epidemiological Outcomes
Behavioral Health Indicators
Executive Summary – Substance Use
2023



Published April 2023



South Dakota
Department of
Social Services

Table of Contents

Overview	4
Overview of Data Sources	5
Primary Datasets	5
South Dakota Demographics	7
South Dakota Demographics	10
Characteristics	10
Co-occurring Substance Use and Mental Health	11
Substance Use in South Dakota	12
South Dakota Substance Use Services	13
Overview of Substance Use in South Dakota – Adult	14
Substance Use Disorders in the Past Year	14
Substance Use in the Past Month	15
Substance Use in the Past Year	16
Alcohol Use and Binge Alcohol Use	17
Alcohol Use Disorder	19
Untreated Alcohol Use	19
Marijuana Use	20
Prescription Drug Use	22
Methamphetamine Use	24
Overdose in South Dakota	25
Nonfatal Overdose Hospitalization and Emergency Department Visits in South Dakota	26
Tobacco Use in Adults	27
E-Cigarette Use in Adults	28
Substance Use Treatment	29
Substance Use in South Dakota – Adolescent	30
Substance Use	30
Substance Use Disorder	31
Binge Alcohol Use	31
Alcohol Use Disorder	32
Marijuana Use	32
Methamphetamine Use	33
Pain Reliever Misuse	33
Smoking Cigarettes or Vapor Products	34
Substance Use Treatment	36
Additional Sources	37

Overview

Individuals that are living with poor mental health often struggle with daily life, such as issues with maintaining close relationships, coping with daily stress, finding it difficult to maintain productivity or having little to no enjoyment in life. Additionally, mental illness and substance use are often intertwined. The United States (U.S.) spent an estimated \$280.5 billion on mental health and substance use services in 2020.¹ In addition, untreated substance use disorders (SUD) or unmet substance use treatment needs cost society more than \$400 billion per year.^{2, 3, 4} Mental health related concerns have the largest disease burden of any illness in the U.S.⁵ Consequentially, substance use or mental health related concerns often increase suicidal behaviors and death by suicide. In an *Addiction Science & Clinical Practice* (2020) article found that the risk of suicide amongst individuals with a SUD had a two to eleven times greater risk of suicide-related mortality.⁶ Similarly, research indicates that individuals living with a mental health illness, such as schizophrenia, bipolar disorder, depression, anxiety and attention-deficit/hyperactivity disorder (ADHD) have an increased risk of dying by suicide.⁷⁻¹⁰

In 2020, approximately 46,000 individuals died by suicide within the U.S. and 185 died by suicide in South Dakota. The age-adjusted rate of suicide decreased about three percent in the U.S., but increased about 0.9% in South Dakota between 2019 and 2020. In 2020, the Native American/American Indian, Non-Hispanic population had the highest age-adjusted rate of suicide by race in the U.S. (23.85 per 100,000) and in South Dakota (54.51 per 100,000). The age-adjusted rate of suicide amongst Native American/American Indian, Non-Hispanic population in South Dakota is more than twice the age-adjusted rate seen in the U.S. In addition, South Dakota's age-adjusted suicide rate for Native American/American Indian, Non-Hispanic population is more than three times higher than the White, Non-Hispanic population (17.28 per 100,000) in South Dakota. Between 2019 and 2020, the U.S. age-adjusted rate of suicide by age was highest amongst individuals 85 years and older (20.50 per 100,000) followed by individuals 80-84 years old (19.37 per 100,000). During the same timeframe, the highest age-adjusted rate of suicide by age in South Dakota were individuals 25-29 years old (36.97 per 100,000) followed by individuals 15-19 years old (35.03 per 100,000), which suggest youth and young adults are more likely to die by suicide in South Dakota than in the U.S. Suicides were also more prevalent in rural areas than urban settings.^{11, 12, 13}

The *Surgeon General's Report* (2016) describes the importance of effective prevention and early intervention on substance use as having the following effects:²

- Evidence-based interventions (EBIs) can have a benefit of \$58 dollars for each dollar spent.
- Every dollar spent on substance use disorder treatment saves \$4 in health care costs and \$7 in criminal justice costs.

Mental health also benefits from early intervention and prevention. A 2009 report from the Institute of Medicine (IOM) and National Research Council (NRC) highlighted that for every dollar invested in early treatment of prevention for addiction and mental health there were \$2 to \$10 dollars in return.¹⁴

Half of all lifetime cases of mental illness manifest by age 14 and three-quarters by age 24.^{5, 15} Prevention that starts early and supports communities fosters healthy families prior to onset of disorders and symptoms.

For more information please contact:

Prevention Program
Department of Social Services
Division of Behavioral Health
605-367-5236
DSSPREVCONT@state.sd.us

Colleen K. Hannum, M.P.H.
Department of Social Services
Division of Behavioral Health
605-367-5236, ext. 1105642
Colleen.Hannum@state.sd.us

Overview of Data Sources

Primary Datasets

Center for Disease Control (CDC), Behavioral Risk Factor Surveillance System (BRFSS) produces an annual telephone survey that collects data about health-related risk behaviors, chronic health conditions, and use of prevention services in adults; 2021 results were published in July 2022. For this report, we use the measure of binge drinking from the BRFSS. BRFSS describes the prevalence of binge drinking by race, gender, income, and age.

Binge drinking in BRFSS is defined as the following:

- **Binge drinking:** five or more alcohol drinks for men or four or more alcohol drinks for women on any occasion within the past 30 days.

Center for Disease Control (CDC), Youth Risk Behavior Surveillance System (YRBSS) creates a biennial report that monitors health-related behaviors that contribute to the leading causes of death and disability in youth through use of a national school-based survey; 2019 results were published in August 2020. The 2021 results was published April 2023.

Health Resources Service Administration (HRSA), Maternal and Child Health Bureau (MCHB) funds the National Survey of Children's Health (NSCH). The NSCH is the largest national- and state-level survey on the health and health care needs of children ages 0-17, their families, and their communities. For this report, we utilized the measures of anxiety and depression amongst youth, ages 3-17, from NSCH.

South Dakota Department of Health, The South Dakota Department of Health's mission is "Working together to promote, protect, and improve health." Delivering a wide range of public health services and monitoring the health of South Dakotans by collecting and disseminating data are key components to achieve that mission. Use of state mortality and morbidity data enable data-driven decisions by the Department of Health, other state agencies, and the public.

Mental Health America (MHA), *State of Mental Health in America Report* produces an annual report that utilizes national data sources to research mental health measures, substance use measures, and access to treatment. The most recent report of the *2023 State of Mental Health in America* report was published in October 2022, which includes state-level data from 2019-2020 published by NSDUH. However, SAMHSA has retracted the state-level 2019-2020 NSDUH. Therefore, this executive summary will utilize the *2022 The State of Mental Health in America* report that was published October 2021 and includes data from the 2018-2019 state-level NSDUH report.

Substance Abuse and Mental Health Services Administration (SAMHSA), National Survey on Drug Use and Health (NSDUH) estimates national and state prevalence of mental health, substance use, and substance or alcohol use related disorders. Due to issues with data validation in the 2019-2020 state-level NSDUH report, SAMHSA has retracted data from these years and the most recent report of state-level data for two-year averages is the 2018-2019 report, which was published December 2020.

The 2018-2019 state-level NSDUH uses the criteria from *the Diagnostic and Statistical Manual of Mental Disorders, fourth edition* (DSM-IV) to define the following substance use related measures:

Substance Use Related Terms –

- **Alcohol Use Disorder (AUD):** meets criteria for alcohol dependence or abuse.
- **Illicit Drug Use Disorder (IDUD):** meets criteria for illicit drug dependence or abuse.

- **Prescription Pain Reliever Use Disorder (PRUD):** misuse of prescription psychotherapeutics is defined as use in any way not directed by a doctor, including use without a prescription of one's own; use in greater amounts, more often, or longer than told. Prescription psychotherapeutics do not include over-the-counter drugs.
- **Substance Use Disorder (SUD):** meets criteria for an alcohol or an illicit drug use abuse or dependence.

Center for Disease Control (CDC), National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS) offers fatal and nonfatal injury, violent death, and cost of injury data through their interactive online data dashboard. Data is acquired from death-certificate data that is provided to the National Center for Health Statistics (NCHS) and can be reported by specific populations of regions or states, such as race, sex, ethnicity, and age ranges.

Kaiser Family Foundation (KFF) is a non-profit that focuses on major health care issues in the United States. KFF utilizes publicly available data. For this report, we use KFF's analysis of Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death 1999-2020 in CDC WONDER Online Database. The National Vital Statistics System was used to identify drug overdose, all drug related deaths and opioid-related deaths, based on ICD-10 codes.

South Dakota Demographics



South Dakota Demographics

Characteristics

Table 1.1 Population by Ethnicity and Race, South Dakota

	2011 [†]		2021 [‡]		Change [*]
	Number	Percent	Number	Percent	
Total (n=)	824,082	-	895,376	-	8.7% ↑
Non-Hispanic	801,183	97.2%	857,591	95.8%	1.4% ↓
Hispanic or Latino	22,899	2.8%	37,785	4.2%	50.0% ↑
White	707,944	85.9%	722,723	80.7%	6.1% ↓
American Indian/ Alaskan Native	71,532	8.7%	73,115	8.2%	5.7% ↓
Two or more	20,140	2.4%	53,740	6.0%	150.0% ↑
Black or African American	9,517	1.2%	17,810	2.0%	66.7% ↑
Asian	7,855	1.0%	14,350	1.6%	60.0% ↑
Some Other Race Alone	7,031	0.9%	12,958	1.4%	55.6% ↑
Native Hawaiian and Other Pacific Islander Alone	63	0.0%	680	0.1%	0.0%

[†]Source: U.S. Census Bureau, 2011: ACS 1-Year Estimates Data Profiles

[‡]Source: U.S. Census Bureau, 2021: ACS 1-Year Estimates Data Profiles

*Note: Change column is the percent change of race or ethnic percent and not count. This excludes the percent change for the total population *Total (n=)*, which is based on count.

Table 1.2 Population by Gender, South Dakota

	2011 [*]		2021 [°]		Change
	Number	Percent	Number	Percent	
Male	410,505	49.8%	451,950	50.5%	1.4% ↑
Female	413,577	50.2%	443,426	49.5%	1.4% ↓

^{*}Source: U.S. Census Bureau, 2011: ACS 1-Year Estimates Data Profiles

[°]Source: U.S. Census Bureau, 2021: ACS 1-Year Estimates Data Profiles

Note: Change column is the percent change of gender percent and not count.

Table 1.3 Population by LGBT Status, South Dakota

Identifying as LGBT [*]		
	2012-2017	
	Number	Percent
LGBT	20,000	3.0%
Lesbian/Gay/Bisexual	18,000	2.7%
Transgender	2,150	0.3%

^{*}Source: Conron, K.J., Goldberg, S.K., Adult LGBT Population in the United States. (July 2020). The Williams Institute, UCLA, Los Angeles, CA.

Note: Due to rounding, estimate counts will not add up to total.

Table 1.4 Population by Age, South Dakota

	Age [†]	
	Number	Percent
	2021	
Under 18 years	220,621	24.6%
18 to 24 years	84,378	9.4%
25 to 34 years	110,211	12.3%
35 to 44 years	112,477	12.6%
45 to 54 years	94,783	10.6%
55 to 64 years	115,023	12.8%
65 years and over	157,883	17.6%
Total	895,376	100%

[†]Source: U.S. Census Bureau, 2021: ACS 1-Year Estimates

Morbidity and Mortality Weekly Report ¹¹ reports that suicides were highest amongst Native Americans/American Indians, Non-Hispanic and individuals that live in rural settings. South Dakota has over twice the amount of rural area and over eight times more Native Americans/American Indians than the United States, which suggests the nature of South Dakota offers unique challenges to serve at risk residents.

Quick Facts



About one in eight South Dakota residents reported living below the poverty line (12.3%), which is lower than the United States (12.8%).

Source: U.S. Census, 2021: ACS 1-Year Estimates



There are 54,403 veterans in South Dakota, which is 8.1% of the state's adult population, while 6.4% of the United States' population are veterans.

Source: U.S. Census Bureau, 2021: ACS 1-Year Estimates Subject Tables



In 2010, 44.7% of South Dakota residents lived in rural areas compared to 21.0% nationwide.

Source: U.S. Census Bureau, Decennial Census



There are nine federally recognized tribes within South Dakota. About 8% of the population in South Dakota is American Indian/Alaskan Native, while only 1% identify as American Indian/Alaskan Native in the United States.



6.0% of South Dakota's workforce were ranchers and farmers, while in the United States ranchers and farmers consisted of less than 1.6% of the labor force.

Source: U.S. Census, 2021: ACS 1-Year Estimates Data Profiles



South Dakota had a 1.8% unemployment rate for individuals 16 years and older in the labor force. 3.9% of individuals 16 years and older are unemployed in the United States.

Source: U.S. Census, 2021: ACS 1-Year Estimates Data Profiles



24.6% of South Dakota residents were under age 18 and 17.6% were over age 65. In the United States 22.1% of residents were under the age of 18 years and 16.8% were over age 65.

Source: U.S. Census, 2021: ACS 1-Year Estimates



In 2021, 4.2% of South Dakota residents identified as Hispanic or Latino, which is lower than the United States (18.8%).

Source: U.S. Census Bureau, 2021: ACS 1-Year Estimates Data Profiles

Important Note: South Dakota's race/ethnicity is mainly comprised of a White and a Native American/American Indian population; therefore, this report will primarily compare these two populations, where applicable.

Co-occurring Substance Use and Mental Health

Co-occurring Any Mental Illness and Substance Use Disorder –

Any mental illness (AMI) is defined as having a diagnosable mental, behavioral, or emotional disorder, other than substance use. In 2018-2019, adults ages 18 or older, 3.8% (or 9.3 million individuals) had a co-occurring AMI and a substance use disorder (SUD) in the United States, while 3.3% of South Dakotans (or 21,000 individuals) had a co-occurring AMI and SUD (Figure 1.1).

Figure 1.1 Co-Occurring Any Mental Illness and Substance Use Disorder in South Dakota and United States

Source: NSDUH, 2018-2019 and NSDUH, RDAS, 2018-2019

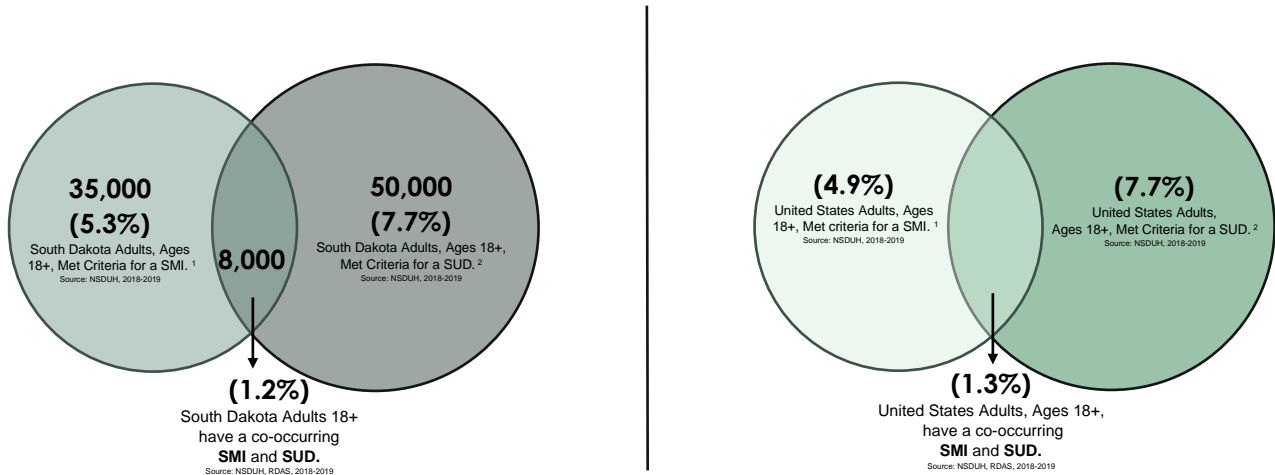


Co-occurring Serious Mental Illness and Substance Use Disorder –

Individuals with an AMI that experience limitations in major life activities would meet criteria for serious mental illness (SMI). South Dakota has a slightly lower rate of co-occurring SUD and SMI (1.2%) than the United States (1.3%).

Figure 1.2 Co-occurring Serious Mental Illness and Substance Use Disorder in South Dakota and United States

Source: NSDUH, 2018-2019 and NSDUH, RDAS, 2018-2019



Note: Restricted-use Data Analysis System (RDAS) produced design-based estimates. NSDUH State Estimates are based on the model-based estimates. Model-based estimates are produced using small area estimation (SAE) methodology. SEA uses sample survey data and other auxiliary data sources to produce the reliable estimates, which may not match exactly with the design-based estimates.

¹The National Survey on Drug Use and Health (NSDUH) reports Any Mental Illness (AMI) as individuals having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder, as assessed by the Mental Health Surveillance Study (MHSS).

²NSDUH defines Substance Use Disorder (SUD) as meeting the criteria for illicit drug or alcohol use disorder as defined by *Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV)*.

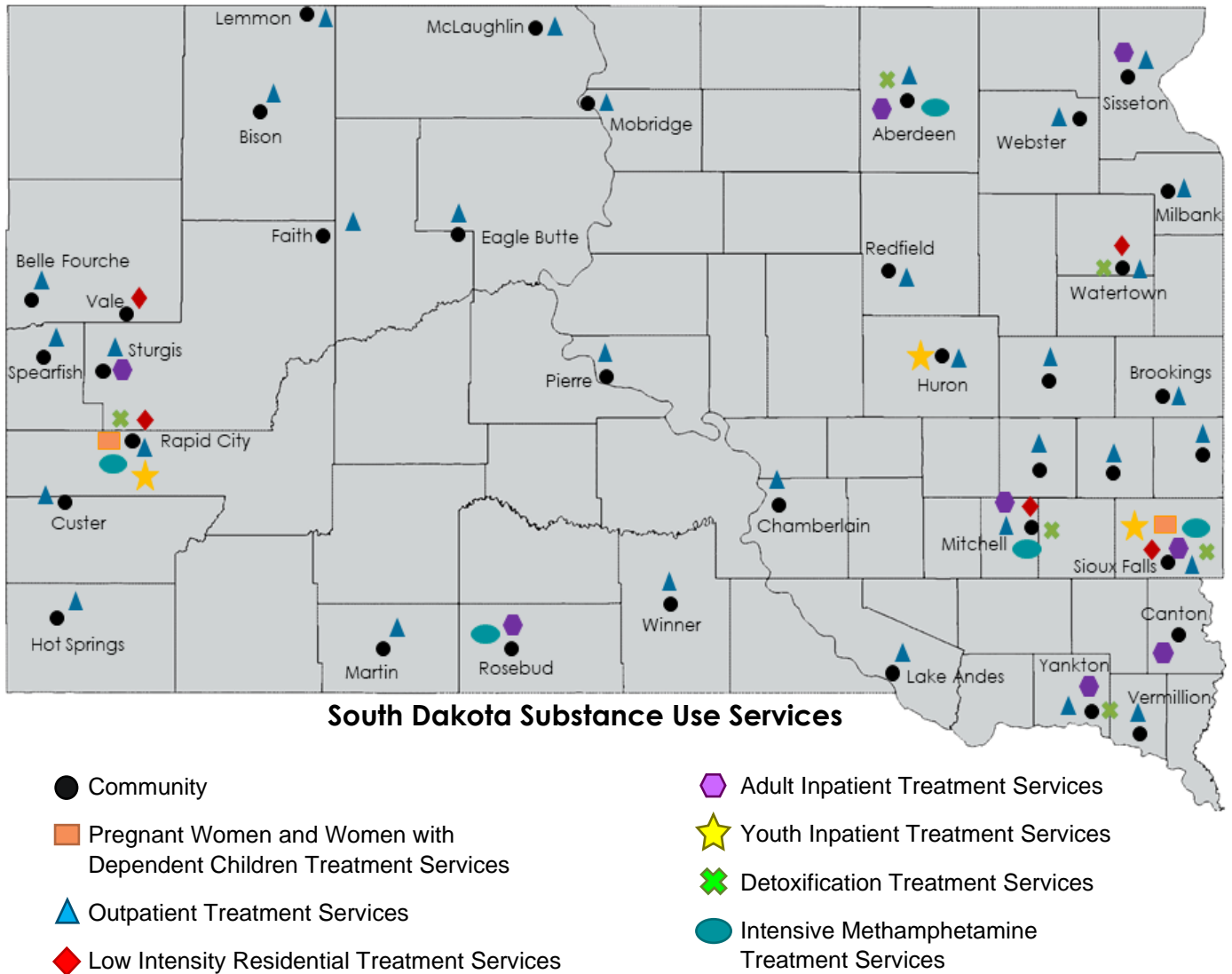
Substance Use in South Dakota



South Dakota Substance Use Services

The Division of Behavioral Health contracts with accredited substance use disorder agencies across the state to provide quality services to both adults and youth. Services include screenings and assessments, early intervention, detoxification, outpatient, and inpatient treatment. Financial assistance for services is available.

Figure 3.1 South Dakota Publicly Funded Substance Use Services



There may be multiple substance use disorder agencies providing services in your community. To find an agency in your area, please visit one of the websites or scan the QR code.

- SAMHSA Treatment Locator – findtreatment.samhsa.gov/
- DSS – dss.sd.gov/behavioralhealth/agencycounty.aspx

Financial assistance is available. Contact a treatment provider in your area for more information.



Overview of Substance Use in South Dakota – Adult

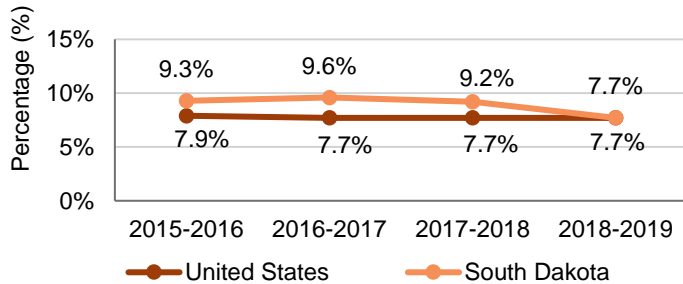
Substance Use Disorder in the Past Year

Definition: Substance Use Disorder (SUD) criteria for illicit drug or alcohol dependence or abuse.

- Adults living with a SUD in the past year has been decreasing in South Dakota from 9.3% in 2015-2016 to 7.7% in 2018-2019 (Figure 3.2, NSDUH).
- South Dakota's prevalence of adults living with a SUD in the past year decreased between 2016-2017 and 2018-2019, while United States remained unchanged for the past three reporting cycles (Figure 3.2, NSDUH).
- In 2018-2019, adults with a SUD in the past year was the same in both South Dakota and the United States (Figure 3.2, NSDUH).

Figure 3.2 Substance Use Disorder in the Past Year, Adults Ages 18 +

Source: NSDUH



Key Takeaways:

South Dakota had the 21st lowest prevalence of SUD in the United States and D.C. (Figure 3.3.D, NSDUH). SUD is a combination of illicit drug or alcohol dependence or abuse. The following compares Substance Use Disorders amongst adults in South Dakota and their relative health to the United States:

- Alcohol Use Disorder was the most common Substance Use Disorder in South Dakota and ranked 35th lowest in the United States and D.C. (Figure 3.4 and Figure 3.3.A., NSDUH)
- South Dakota has the 4th lowest prevalence of Illicit Drug Use Disorder in the past year in the United States and D.C. (Figure 3.3.B., NSDUH).
- Pain Reliever Use Disorder in the past year in South Dakota was 10th lowest in the United States and D.C. (Figure 3.3.C., NSDUH).

Figure 3.4 Substance Use Disorder in the Past Year, South Dakota, Adults Ages 18+

Source: NSDUH, 2018-2019

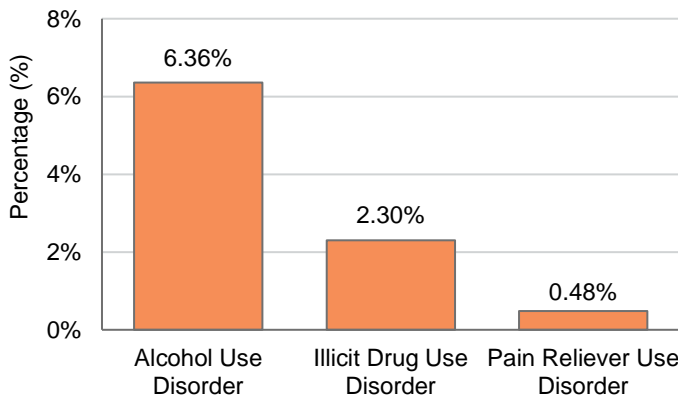
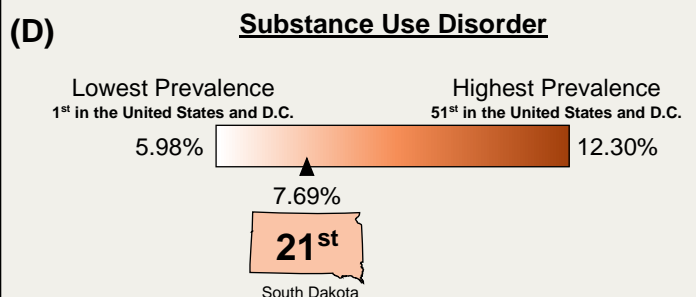
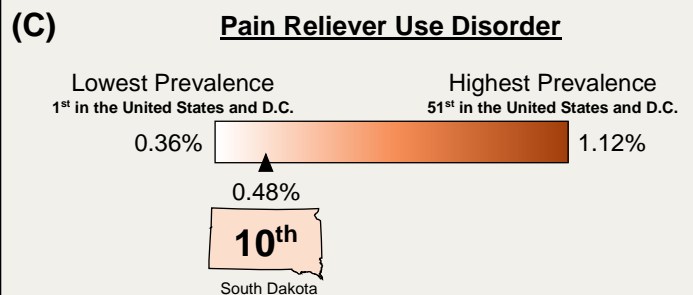
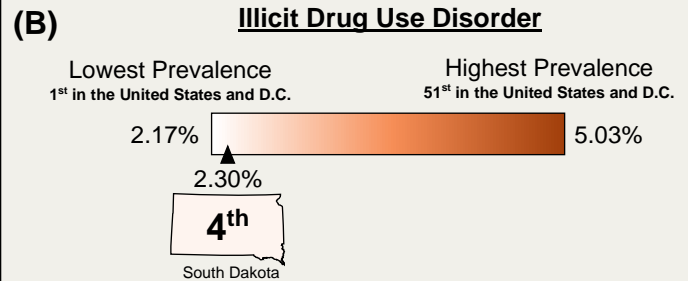
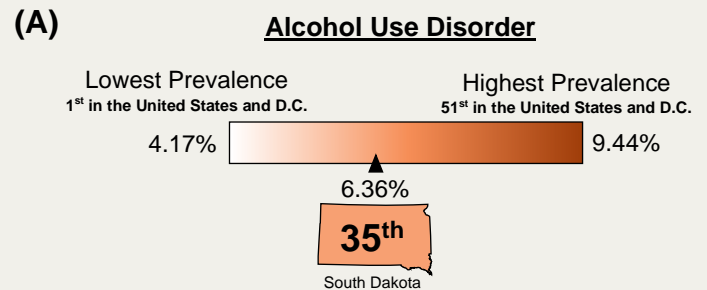


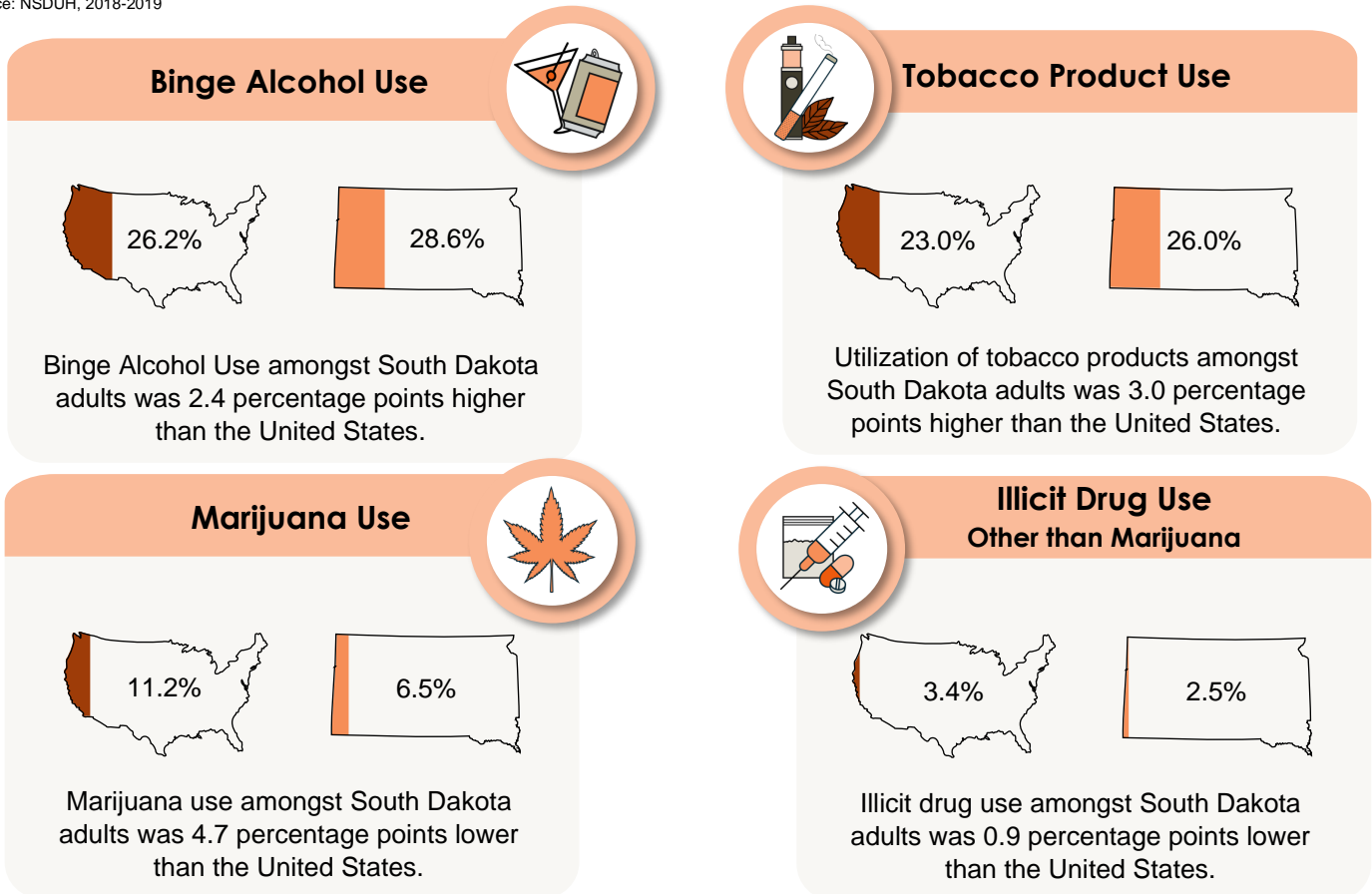
Figure 3.3 Substance Use Disorder Ranking In South Dakota Amongst the United States and District of Columbia (D.C.)

Source: NSDUH, 2018-2019



Substance Use in the Past Month

Figure 3.5 Substance Use in the Past Month, United States vs. South Dakota, Adults Ages 18+
 Source: NSDUH, 2018-2019



Key Takeaways:



In 2018-2019, South Dakota was **higher** than the United States for the following substance use in the past month:

- Binge Alcohol Use
- Tobacco Product Use



In 2018-2019, South Dakota was **lower** than the United States for the following substance use in the past month:

- Marijuana Use
- Illicit Drug Use Other Than Marijuana

Substance Use in the Past Year

Figure 3.6 Illicit Drug Use in the Past Year, South Dakota, Adults Ages 18+

Source: NSDUH, 2018-2019

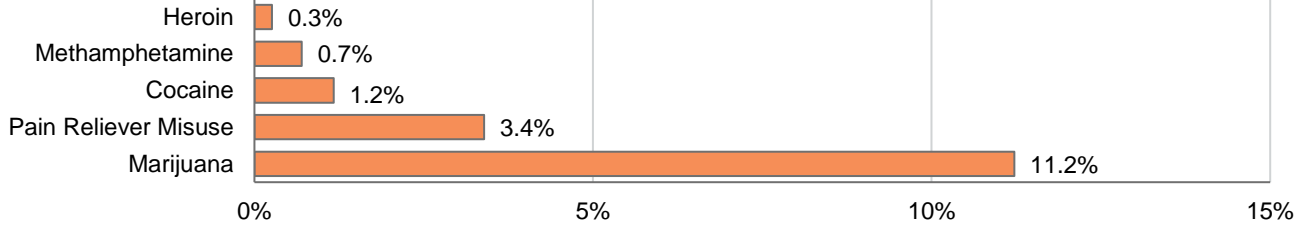


Figure 3.7.a Marijuana Use

Source: NSDUH

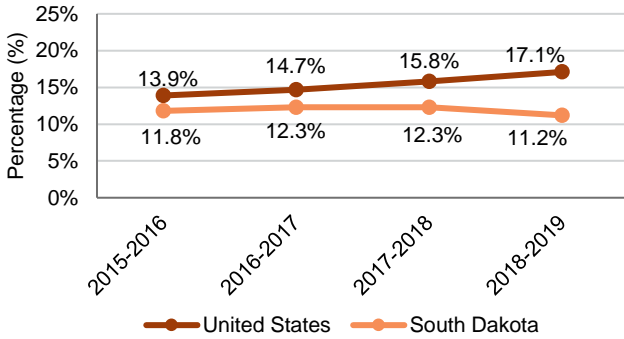


Figure 3.7.b Pain Reliever Misuse

Source: NSDUH

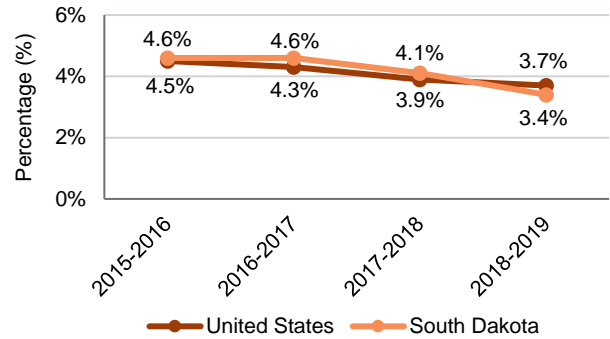


Figure 3.7.c Cocaine Use

Source: NSDUH

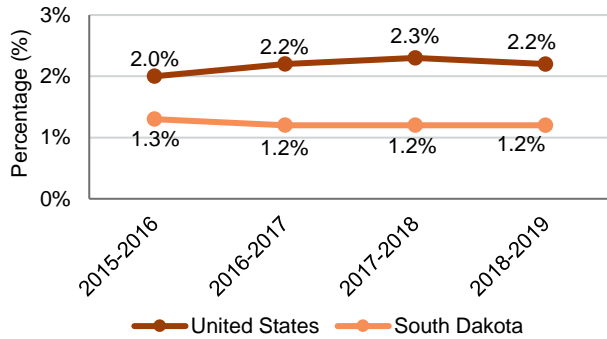


Figure 3.7.d Methamphetamine Use

Source: NSDUH

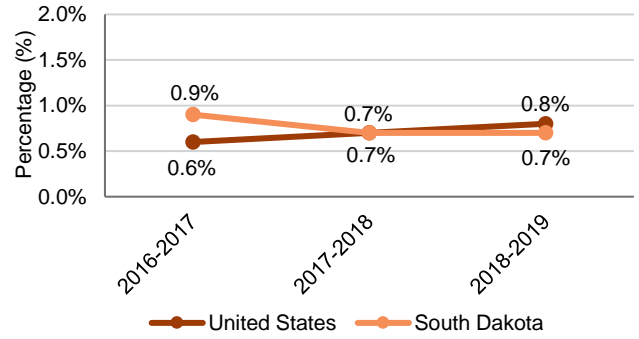
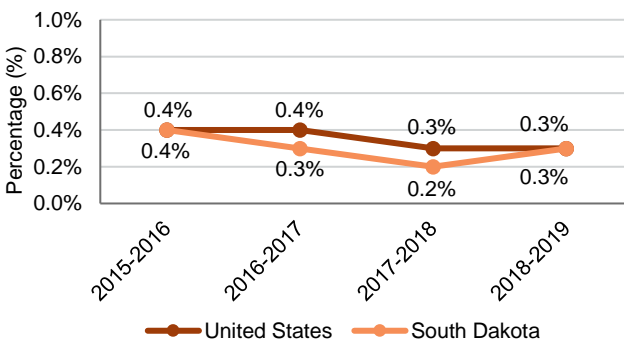


Figure 3.7.e Heroin Use

Source: NSDUH



Key Takeaway:

In 2018-2019, South Dakota adults either had the same or lower prevalence of illicit drug use (marijuana use, prescription pain reliever, cocaine, methamphetamine, and heroin) within the last year, when compared to the United States.

Alcohol and Binge Alcohol Use

Definitions: alcohol use is any drink within the past 30 days. Binge alcohol use is defined as drinking five or more drinks (for males) or four or more drinks (for females) on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days.

- Alcohol was the most used substance among adults in South Dakota and the United States.
- Young adults 18-25 years old were 1.6 times more likely to binge alcohol drink than adults 26 years old and older.
- 26.5% of South Dakota adults 26 years old and older reported binge alcohol use within the past month.

Consequences of Alcohol Use:



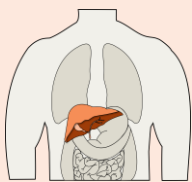
Excessive alcohol use accounted for more than 140,000 deaths per year, or more than 380 deaths per day, in the United States during 2015-2019.

Source: CDC



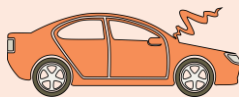
Excessive alcohol use cost South Dakota an estimate of \$598,200,000 in 2010. South Dakotans paid \$735 per person, which is lower than the United States average (\$807). These costs were from loss of productivity, health care, criminal justice, and motor vehicle crashes.

Source: CDC



In 2020, the age-adjusted death rate per 100,000 from chronic liver disease and cirrhosis was 25.4 in South Dakota and 13.3 in the United States. In the past decade (2010-2020), deaths due to chronic liver disease have increased about 151.5% in South Dakota and 41.5% in the United States.

Source: CDC WONDER

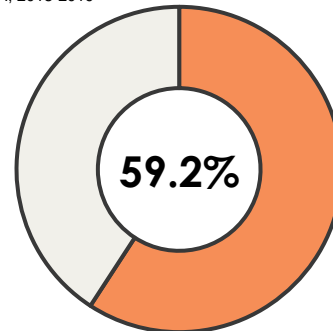


In 2020, there were 117 total crash fatalities in South Dakota. Of those crashes, 27.4% (or 32 fatalities) were alcohol related fatalities.

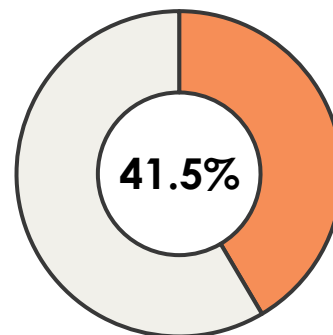
Source: South Dakota Department of Public Safety

Figure 3.8 Alcohol Use and Binge Alcohol Use in the Past Month

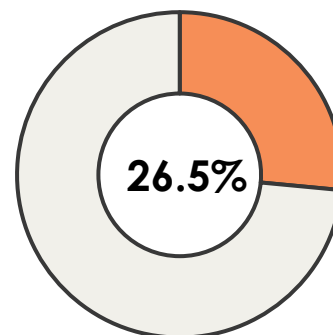
Source: NSDUH, 2018-2019



59.2% of South Dakota adults **18 years old and older** and 59.8% young adults **18-25 years old** reported using alcohol in the past month.



41.5% of young adults in South Dakota **18-25 years old** reported binge alcohol use in the past month.



26.5% of adults in South Dakota **26 years old and older** reported binge alcohol use in the past 30 days.

Risk Factors of Alcohol Use:

Source: U.S. Census Bureau

In 2020, South Dakota ranked 4th in the United States, per capita, for states with the most bars. South Dakota has about 36 bars per 100,000 people.

South Dakota had about one liquor store per 12,000 residents (all age groups) in 2020.

- Historically, American Indian/Alaskan Native had a higher prevalence of binge alcohol drinking. However, binge alcohol drinking amongst Native Americans/American Indians decreased 9 percentage points between 2019 to 2020, which is the largest recorded decrease between 2015 and 2021. (BRFSS, Figure 3.9).
- Binge alcohol drinking amongst Whites exceeded American Indian/Alaskan Native by approximately 6 percentage points in 2021 (BRFSS, Figure 3.9).

Figure 3.9 Adult Binge Alcohol Drinking by Race, South Dakota, Adults Ages 18+

Source: BRFSS

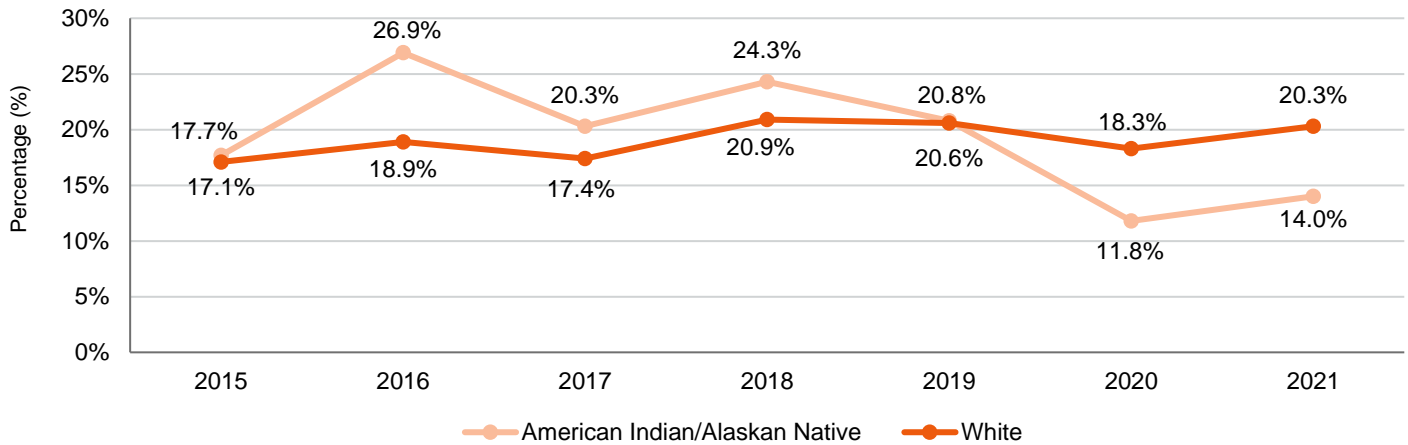
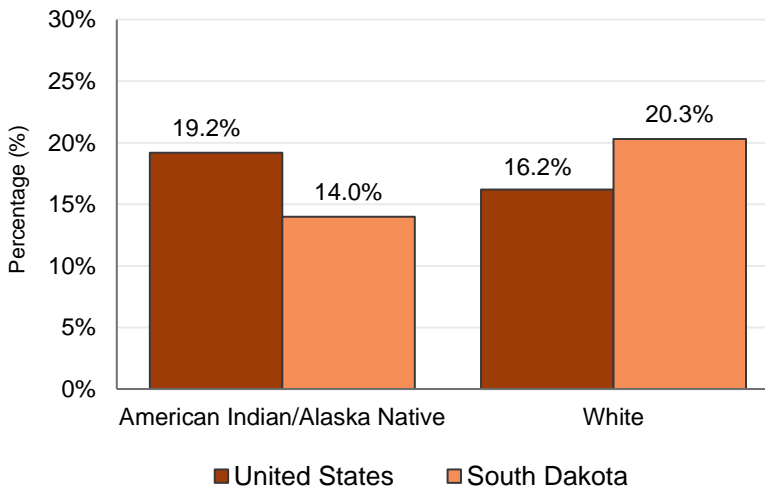


Figure 3.10 Binge Alcohol Drinking, by Race, Adults Ages 18+

Source: BRFSS, 2021



Key Takeaway:

The prevalence of binge alcohol drinking for the American Indian/Alaskan Native population in South Dakota was lower than the White population for the first time in 2020.

The American Indian/Alaskan Native population continues to have a lower prevalence than the White population in 2021.

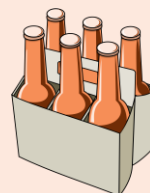


Quick Facts:



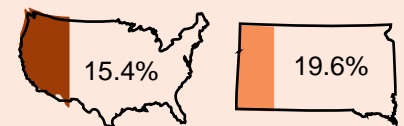
South Dakota ranked 10th highest in the United States and District of Columbia (D.C.) for binge alcohol use in the past month among adults 18-25 years old.

Source: NSDUH, 2018-2019



39.1% of adults ages 18+ in South Dakota believed there was great risk from drinking five or more drinks of alcohol once or twice per week, compared to 45.0% of adults ages 18+ in the United States.

Source: NSDUH, 2018-2019



More adults in South Dakota (19.6%) than in the United States (15.4%) reported binge drinking in the past year.

Source: BRFSS, 2021

Alcohol Use Disorder

Definition: Alcohol Use Disorder (AUD) meets criteria for alcohol dependence or abuse.

Figure 3.11 Alcohol Use Disorder in the Past Year, by Age, United States vs. South Dakota

Source: NSDUH, 2018-2019

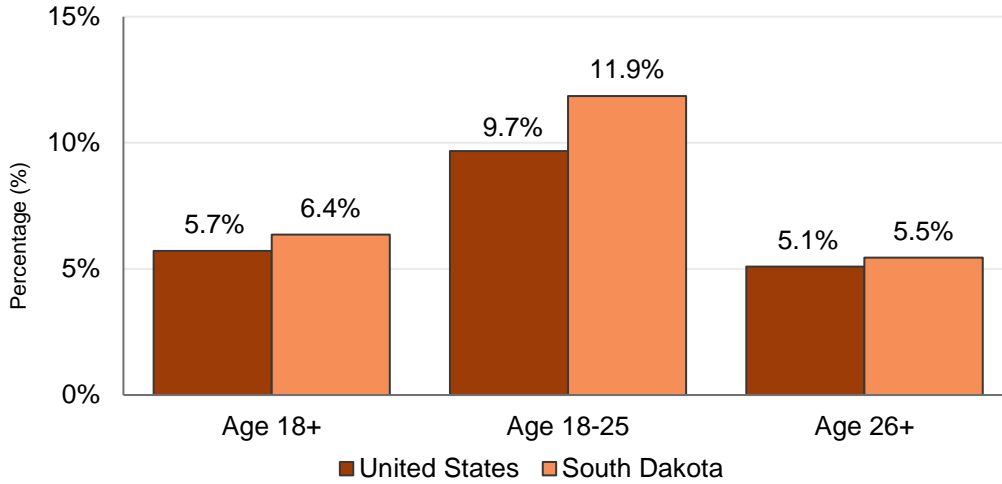
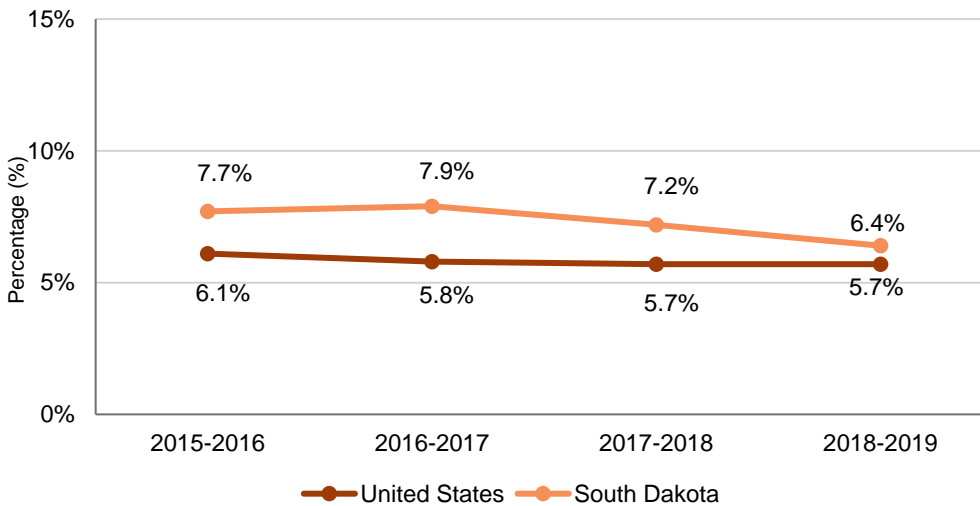


Figure 3.12 Alcohol Use Disorder in the Past Year, Adults Ages 18+

Source: NSDUH



Key Takeaways:

South Dakota had a higher prevalence of adults with an AUD in the past year compared to the United States for all age groups.

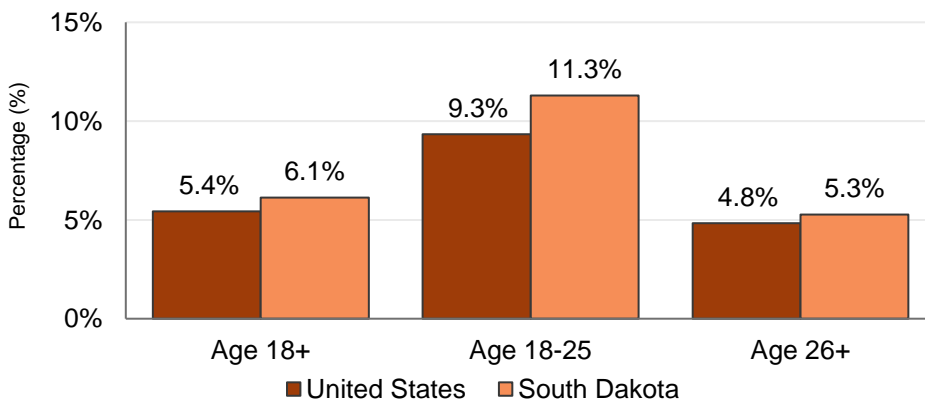
South Dakota's prevalence of adults with an AUD in the past year decreased between 2015-2016 and 2018-2019.

Untreated Alcohol Use

Definition: Needing But Not receiving Alcohol treatment refers to respondents who are classified as needing alcohol treatment, but who did not receive alcohol treatment at a specialty facility.

Figure 3.13 Needing But Not Receiving Treatment at a Specialty Facility for Alcohol Use in the Past Year, by Age, United States vs. South Dakota

Source: NSDUH, 2018-2019



Key Takeaway:

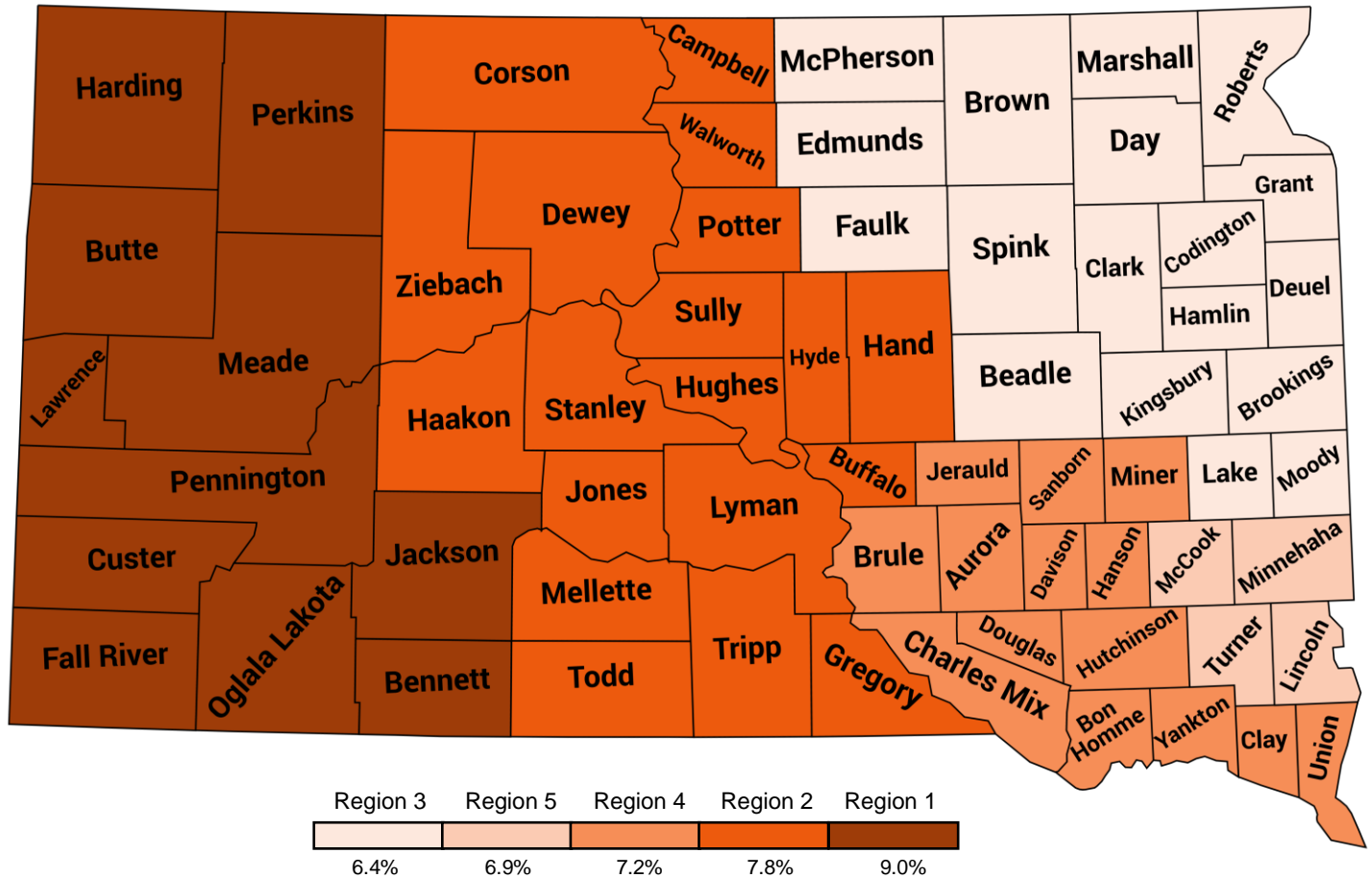
South Dakota had a higher prevalence of those needing but not receiving treatment at a specialty facility for alcohol use in the past year compared to the United States for all age groups.

Marijuana Use

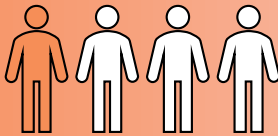
- In South Dakota, Region 1 had the highest prevalence of marijuana use in the past month for adults 18+ (NSDUH, Figure 3.14).

Figure 3.14 Prevalence of Marijuana Use in the Past Month, Adults Ages 18+

Source: 2016, 2017 and 2018 NSDUHs

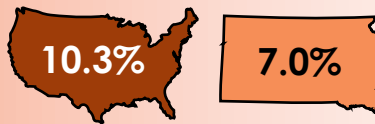


Quick Facts:



A minority (24.1%) of adult residents in South Dakota believed there was great risk from smoking marijuana once a month.

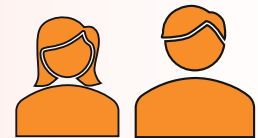
Source: NSDUH, 2018-2019



On average, 10.3% of United States and 7.0% of South Dakota adult residents reported monthly marijuana use between 2016-2019.*

Source: NSDUH

* Based on averaged NSDUH state-level 2-year estimates between 2016-2017 and 2018-2019.



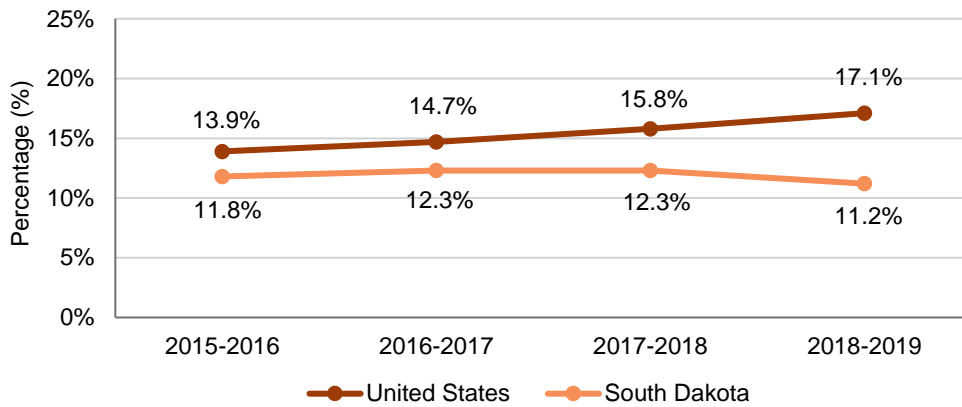
Region 1 had the highest prevalence of marijuana use in the past month for all age groups.

Source: NSDUH, 2016-2018

- The United States' prevalence of marijuana use in the past year amongst adults has increased from 13.9% to 17.1% between 2015-2016 and 2018-2019. This was an increase of 3.2 percentage points (NSDUH, Figure 3.15).
- Contrary to the United States' upward trend, South Dakota's prevalence of adult marijuana use in the past year decreased from 11.8% to 11.2% or a decrease of about 0.6 percentage points (NSDUH, Figure 3.15).
- South Dakota adults consistently had a lower prevalence of marijuana use in the past year than the United States in all observed years (NSDUH, Figure 3.15).

Figure 3.15 Marijuana Use in the Past Year, Adults Ages 18+

Source: NSDUH

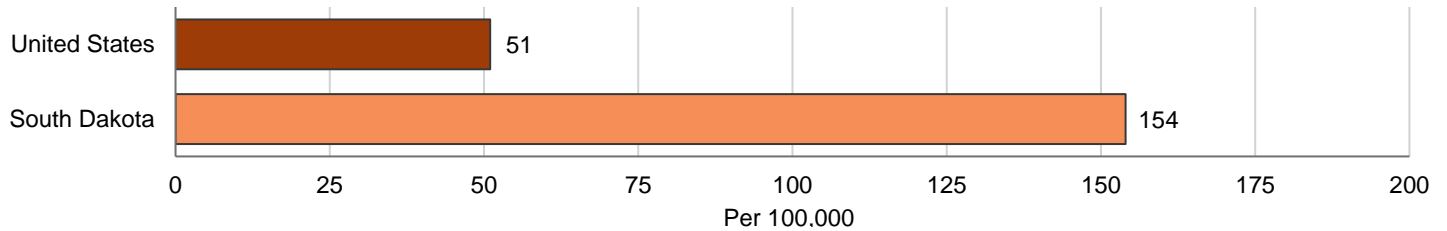


Key Takeaway:

The prevalence of marijuana use in the past year amongst South Dakota adults decreased between 2015-2016 and 2018-2019 and was consistently lower than the United States.

Figure 3.16 Rate (per 100,000) of Primary Marijuana/Hashish Admissions to Publicly Funded Treatment Facilities

Source: TEDS, 2020

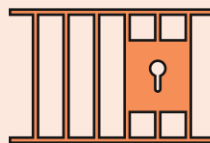


Quick Facts:



In 2021, there were 1,607 arrests for possession of marijuana in South Dakota.

Source: FBI – Crime Data Explorer



31.6% of South Dakota's drug possession arrests were related to marijuana in 2021.

Source: FBI – Crime Data Explorer



Among individuals that received treatment at a publicly funded treatment facility in South Dakota in 2020, 7.5% had a primary diagnosis of marijuana/hashish use.

Source: TEDS, 2020

Prescription Drug Use

- Between 2012 and 2021, there were 699 deaths due to drugs. Opioids accounted for 47.5% (or 332) of drug related deaths in South Dakota (SD DOH Vital Statistics, Figure 3.17).

Most Prescribed Opioids:

- Actiq
- Astramorph
- Codeine
- Conzip
- Demerol
- DepoDur
- Dilaudid
- Duragesic
- Duramorph
- Endocet
- Exalgo
- Hydrocodone (Vicodin)
- Hydromorphone
- Fentanyl
- Lorcet
- Lortab
- Meperidine
- Methadone
- Morphine
- MS-Contin
- Norco
- Oxycodone (Oxycontin/Oxceta)
- Percocet
- Roxicet
- Roxicodone
- Tramadol
- Ultram
- Ventura

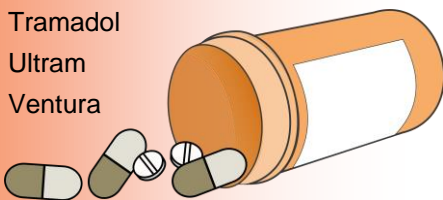


Figure 3.17 All Drug and Opioid Related Deaths, South Dakota, 2012-2021

Source: SD DOH Vital Statistics

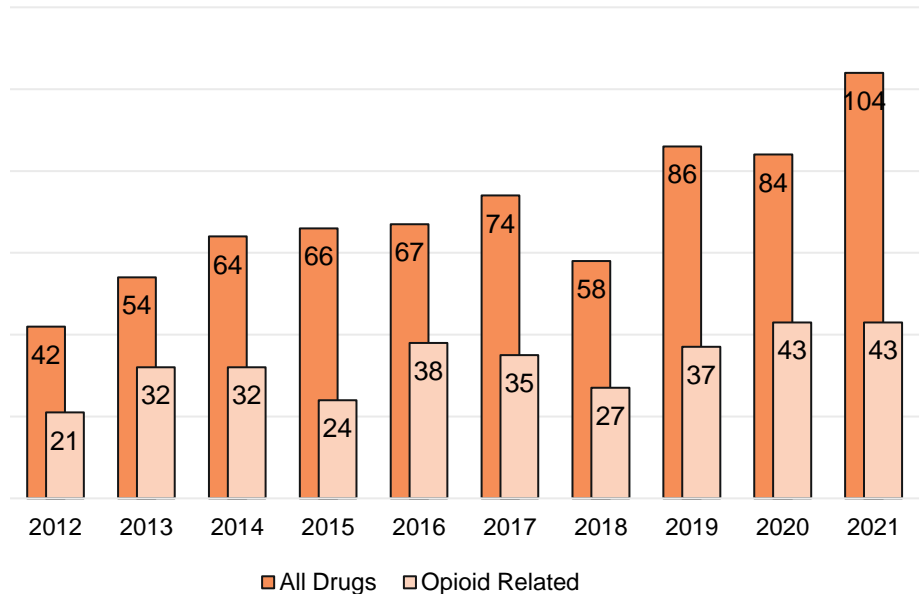


Table 3.1 All Drugs and Opioid Related Deaths, South Dakota, by Race, 2012-2021

Source: SD DOH Vital Statistics

	Race		
	White	AI/AN*	Other**
All Drug Deaths	74%	21%	6%
Opioid Related Deaths	78%	15%	7%

*AI/AN = American Indian/Alaskan Native; ** Other includes Asian, Black, Multiracial, and Unknown races.

Table 3.2 All Drugs and Opioid Related Deaths, South Dakota, by Gender, 2012-2021

Source: SD DOH Vital Statistics

	Gender	
	Female	Male
All Drug Deaths	44%	56%
Opioid Related Deaths	45%	55%

Quick Fact:

South Dakota's rate of overdose deaths (12.6 per 100,000) was about 2.6x lower than the United States (32.4 per 100,000) in 2021.

Source: Kaiser Family Foundation and CDC Wonder



For more information, please visit:
<https://www.avoidopioidsd.com>



South Dakota resource hotline
 1-800-920-4343

- South Dakota ranked lowest in the United States for age-adjusted rate of opioid-related overdose deaths and 2nd lowest age-adjusted rate for overdose deaths due to all drugs per 100,000 in 2021 (Kaiser Family Foundation and CDC WONDER).

Figure 3.18 All Drug Deaths, by Age, South Dakota, 2012-2021

Source: SD DOH Vital Statistics

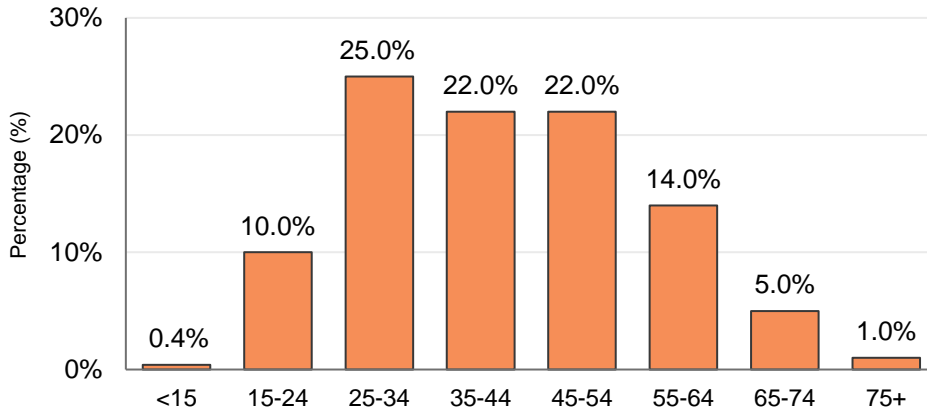


Figure 3.19 Opioid Related Deaths, by Age, South Dakota, 2012-2021

Source: SD DOH Vital Statistics

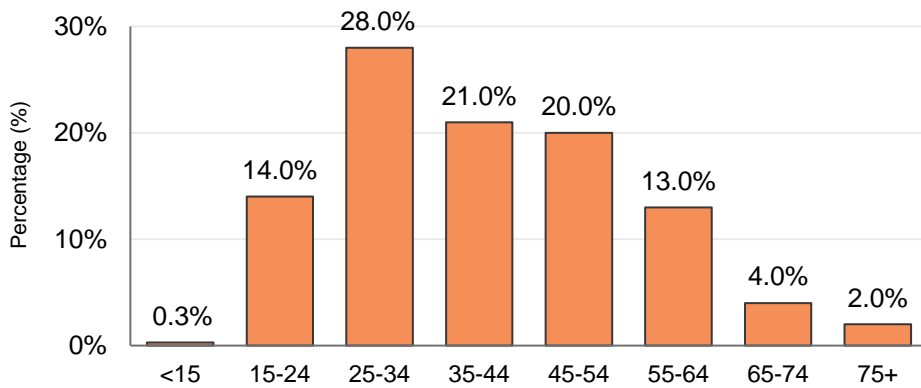
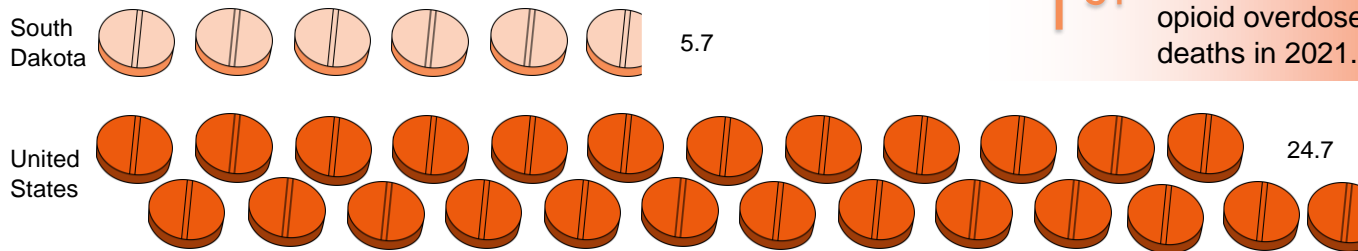


Figure 3.20 Age-Adjusted Opioid Related Deaths per 100,000, South Dakota, vs. United States, 2021

Source: Kaiser Family Foundation



Quick Facts:

Source: Kaiser Family Foundation and CDC WONDER

Deaths Due to All Drug Overdoses

South Dakota deaths due to drug overdoses increased from an age-adjusted rate of 5.5 per 100,000 in 2012 to 12.6 per 100,000 in 2021.

2nd

South Dakota had the second lowest age-adjusted rate of all drug overdose deaths in 2021.

Opioid Related Deaths

South Dakota drug overdoses related to opioids increased from an age-adjusted rate of 3.1 per 100,000 in 2012 to 5.7 per 100,000 in 2021.

1st

South Dakota had the lowest age-adjusted rate of opioid overdose deaths in 2021.



Those struggling with addiction can feel isolated and hopeless. A Care Coordinator provides the support you or your family may be missing and helps develop a plan for recovery.

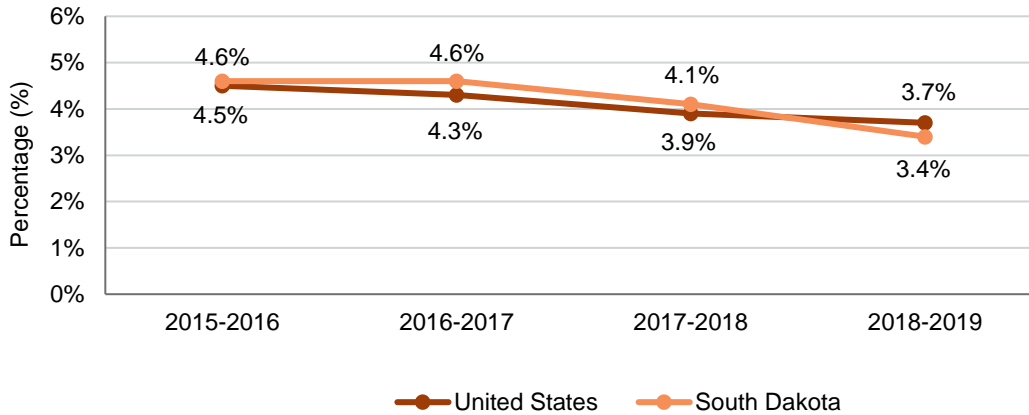
Care Coordination is a FREE, confidential service available for all South Dakotans. Call the Resource Hotline at 1-800-920-4343 and ask to speak with a Care Coordinator.

For more information, please visit: <https://www.avoidopioidsd.com/find-help/care-coordination/>

- In the United States, pain reliever misuse amongst adults in the past year has decreased from 4.5% to 3.7% in the previous years' trends. South Dakota showed a very similar trend, decreasing from 4.6% to 3.4% in the same timeframe (NSDUH, Figure 3.23).

Figure 3.21 Pain Reliever Misuse in the Past Year, Adults Ages 18+

Source: NSDUH



Key Takeaway:

South Dakota's prevalence of pain reliever misuse in the past year amongst adults decreased between 2015-2016 and 2018-2019 and became lower than the United States in 2018-2019.

Methamphetamine Use

- Past year methamphetamine use for adults in the United States has increased from 0.6% in 2016-2017 to 0.8% in 2018-2019, an increase of 0.2 percentage points (NSDUH, Figure 3.22).
- South Dakota's prevalence of adult methamphetamine use in the past year decreased from 0.9% to 0.7%, a decrease of 0.2 percentage points between 2016-2017 and 2018-2019 (NSDUH, Figure 3.22).
- In 2018-2019, South Dakota adults had a lower prevalence of methamphetamine use than in the United States for the first time in the observed timeframes. (NSDUH, Figure 3.22).

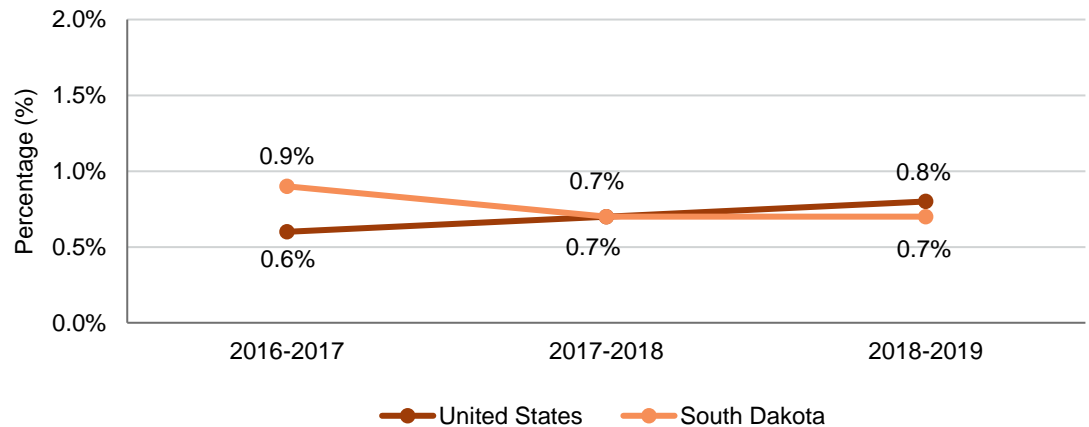


Key Takeaway:

South Dakota's prevalence of methamphetamine use in the past year amongst adults decreased between 2016-2017 and 2018-2019 and was lower than the United States in 2018-2019.

Figure 3.22 Methamphetamine Use in the Past Year, Adults Ages 18+

Source: NSDUH



Overdose in South Dakota

- Overdose deaths from all drugs increased 147.6% from 2012 to 2021 (DOH Vital Statistics and CDC Wonder, Figure 3.23).
- South Dakota had the 2nd lowest age-adjusted rate of drug overdose deaths (2021 provisional).
 - United States: 32.7 per 100,000 population
 - South Dakota: 12.7 per 100,000 population

Figure 3.23 Overdose Deaths by Drug Type, South Dakota, 2012-2021

Source: DOH Vital Statistics and CDC Wonder

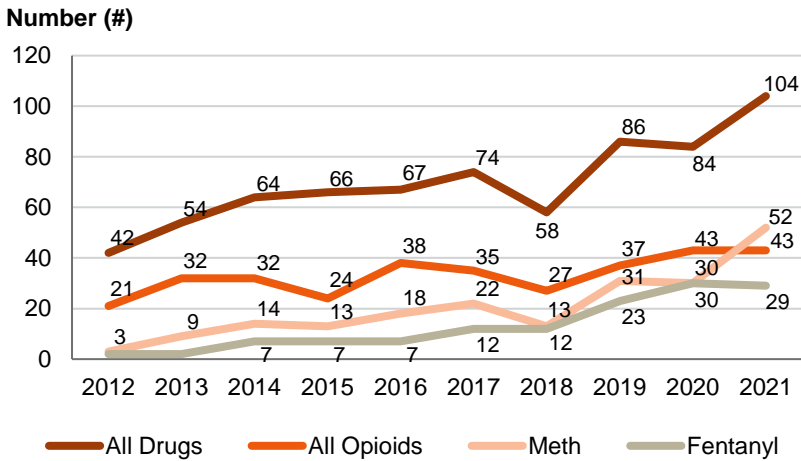
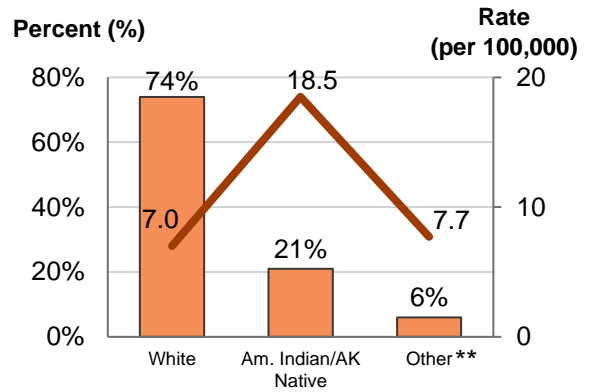


Figure 3.24 All Drug Overdose Deaths, by Race, South Dakota, 2012-2021

Source: DOH Vital Statistics



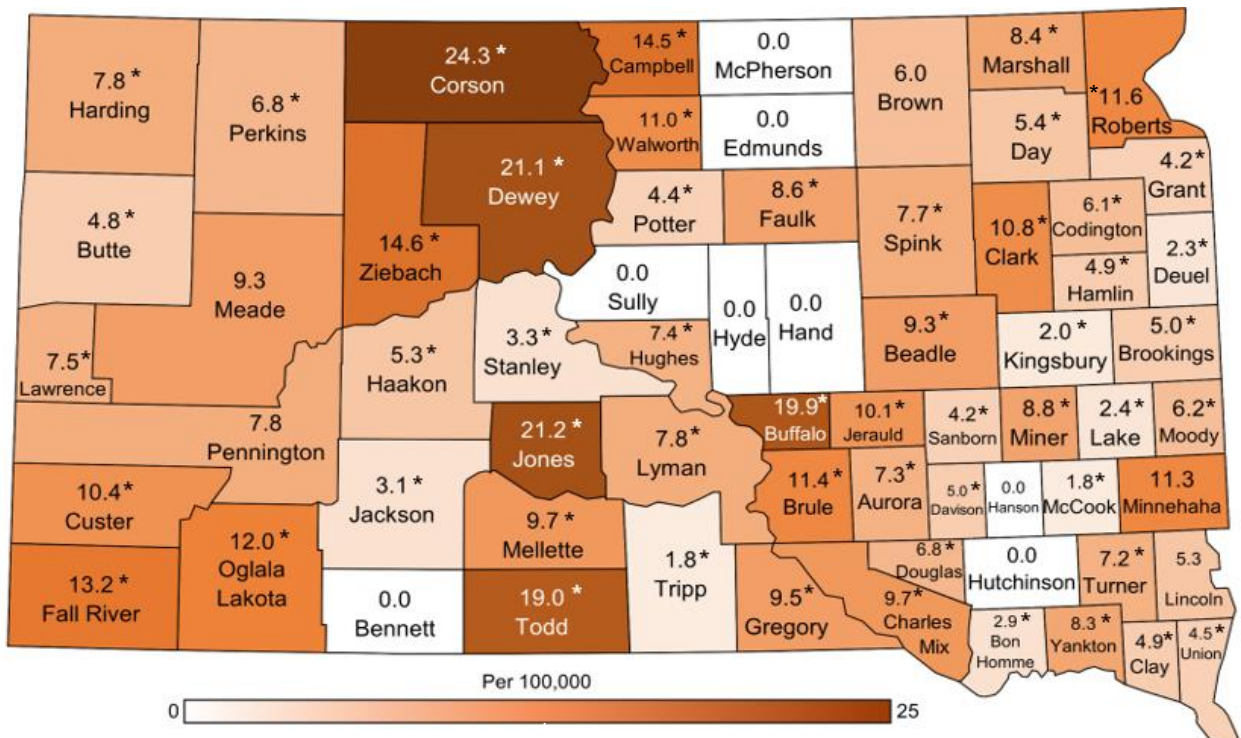
** Other includes Asian, Black, Multiracial, and Unknown races.

Key Takeaway:

American Indian/Alaskan Native overdose rates were 2.6 times higher than White overdose rates in South Dakota (2012-2021).

Figure 3.25 Overdose Deaths Rates by County (per 100,000), by Race, South Dakota, 2012-2021

Source: DOH Vital Statistics



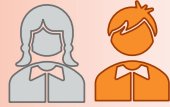
*Rates with less than 20 deaths are considered unstable and should be viewed with caution.

Nonfatal Overdose Hospitalization and Emergency Department Visits in South Dakota

The largest proportion of nonfatal overdose visits to the Emergency Department were among:



Females



Ages 15-24



White Population

Figure 3.26 Nonfatal Overdose Hospitalizations and Emergency Department Visits, by Sex, 2016-2021

Source: SDAHO

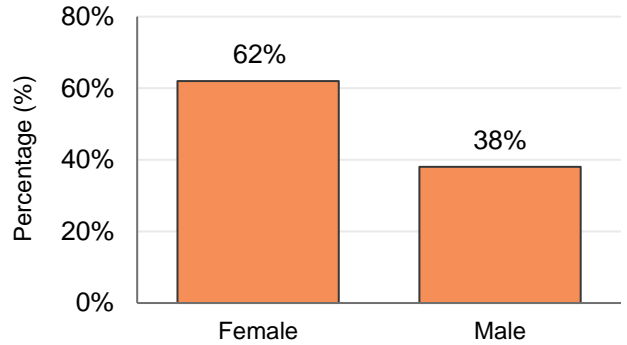


Figure 3.27 Nonfatal Overdose Hospitalizations and Emergency Department Visits, by Age Group, 2016-2021

Source: SDAHO

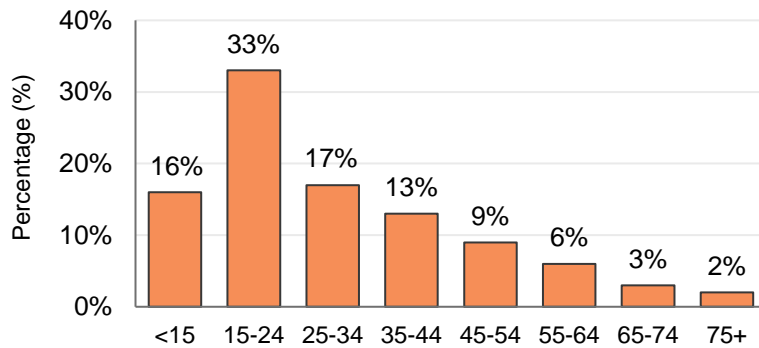
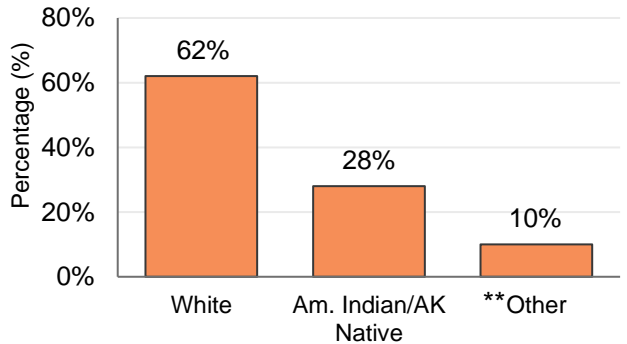


Figure 3.28 Nonfatal Overdose Hospitalizations and Emergency Department Visits, by Race, 2016-2021

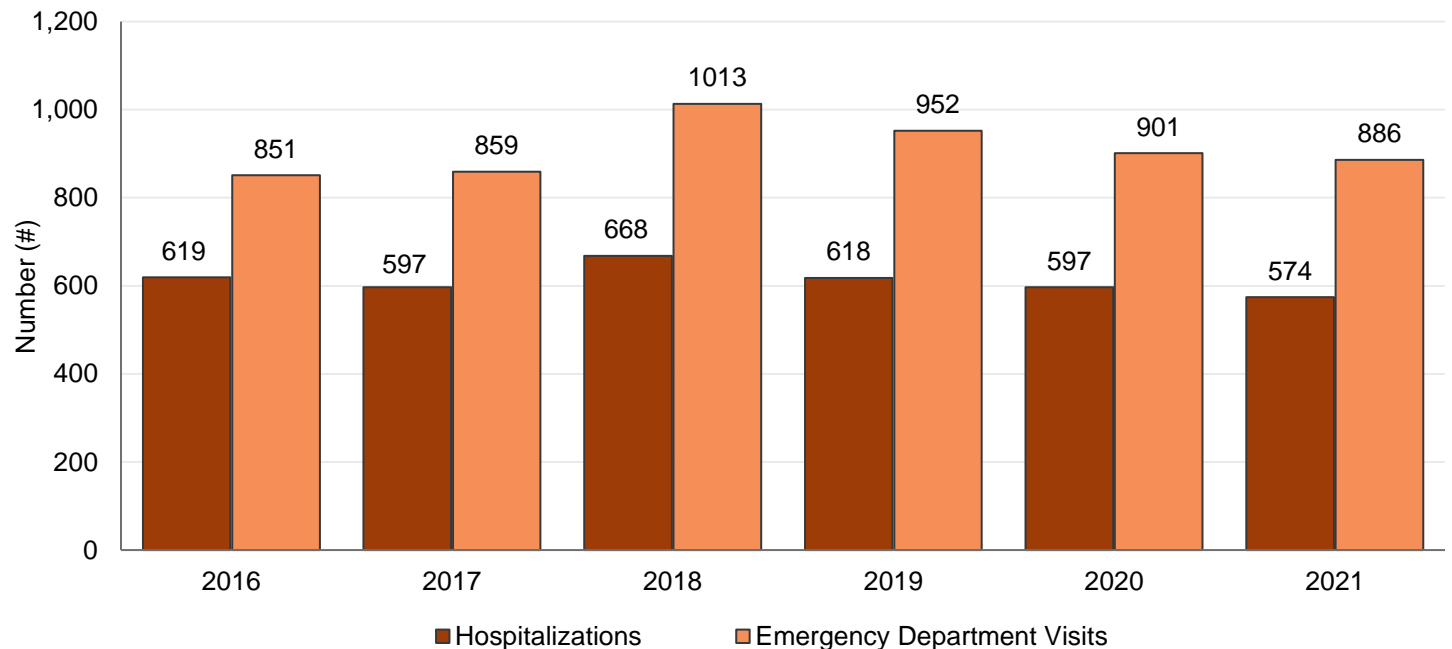
Source: SDAHO



** Other includes Asian, Black, Multiracial, and Unknown races.

Figure 3.29 Nonfatal Overdose Hospitalizations and Emergency Department Visits, 2016-2021

Source: SDAHO



Tobacco Use in Adults

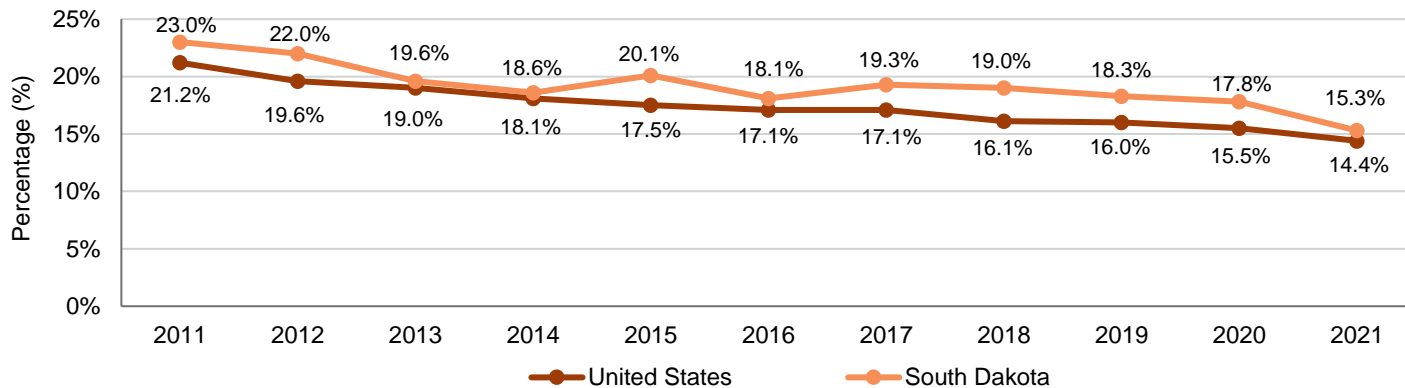
- In 2020, there were 8,966 total natural deaths. Tobacco use was probably related to 17.9% (or 1,608) deaths in South Dakota.
Source: South Dakota Department of Health, Office of Health Statistics

Figure 3.30 Percent (%) Decrease of Adults Who Are Current Smoker, Past Decade



Figure 3.31 Adults Who Are Current Smokers

Source: BRFSS



Monetary Cost Related to Tobacco:

Source: Tobacco Free Kids

It costs South Dakota \$433 million in health care expenditures and another \$838.6 million in lost productivity each year.

South Dakota residents paid \$893 per household in state and federal taxes from smoking-caused government expenditures.



The South Dakota QuitLine offers coaching and cessation medications at no cost to tobacco users interested in quitting.

If you or someone you know need help quitting, please reach out to the South Dakota QuitLine at

1-866-SD-QUITS

www.SDQuitLine.com

Quick Facts:



Tobacco use is the leading preventable cause of death in the United States.

Source: U.S. Department of Health and Human Services



A majority (65.1%) of South Dakota adults believed there was great risk from smoking one or more packs of cigarettes per day.

Source: NSDUH, 2018-2019



In 2019, the tobacco industry spent \$8.2 billion marketing cigarettes and smokeless tobacco in the United States, \$22.5 million each day, or nearly \$1 million every hour.

Source: CDC



Exposure to secondhand smoke caused an estimated 41,000 deaths each year among adults in the United States.

Source: CDC



Secondhand smoke caused more than 7,300 annual deaths from lung cancer amongst non-smokers and nearly 34,000 annual deaths from heart disease in the United States.

Source: U.S. Department of Health and Human Services



More than 16 million Americans are living with a disease caused by smoking.

Source: CDC

Top Three Categories for Tobacco Related Deaths

Source: South Dakota Department of Health, Office of Health Statistics, 2020



Chronic Lower Respiratory Disease

Respiratory Disease
62.5% of deaths due to chronic lower respiratory disease were probably related to tobacco use.



Cancer

28.4% of deaths due to cancer were probably related to tobacco use.



Cardiovascular Disease

17.2% of deaths due to heart disease were probably related to tobacco use.

E-Cigarette Use in Adults

Table 3.32 Disparities of Current E-Cigarette Use, South Dakota

Source: BRFSS, 2021

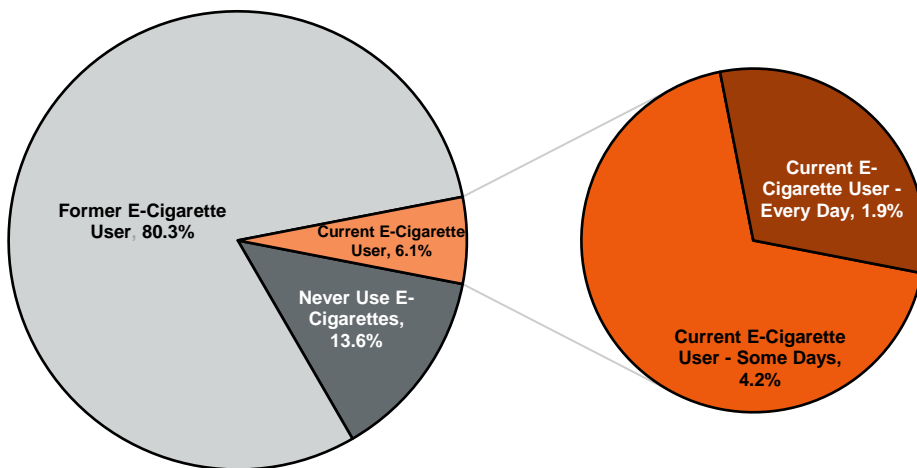
Age Group		Gender		Race		Income		Education Attained	
18-24	25-34	Male	Female	White, Non-Hispanic	AI/AN*, Non-Hispanic	\$35,000-\$49,999	\$50,000-\$99,999	High School or G.E.D.	Some Post-High School
26.0%	4.7%	6.9%	5.3%	6.3%	4.6%	6.9%	5.3%	7.4%	8.5%

Note: prevalence estimates not available if the unweighted sample size for the denominator was <50 or Relative Standard Error (RSE) is >.03 or if the state did not collect data for that calendar year.

* AI/AN = American Indian/Alaskan Native

Figure 3.33 Frequency of E-Cigarette Use, South Dakota

Source: BRFSS, 2021



- Never Use E-Cigarettes
- Current E-Cigarette User - Some Days
- Former E-Cigarette User
- Current E-Cigarette User - Every Day

Quick Fact:

Source: BRFSS

Current e-cigarette use has increased 110.3% from 2.9% in 2016 to 6.1% in 2021.



Key Takeaways:

6.1% of South Dakota adults currently use e-cigarettes either every day or some days.

Substance Use Treatment

Definition: *Needing But Not Receiving Substance Use Treatment* refers to respondents who are classified as needing illicit drug or alcohol treatment, but who did not receive illicit drug or alcohol treatment at a specialty facility.

- In the United States, adults needing but not receiving substance use treatment at a specialty facility in the past year decreased from 7.4% in 2015-2016 to 7.2% in 2018-2019, which is a 0.2 percentage point decrease (NSDUH, Figure 3.34).
- In South Dakota, adults needing but not receiving for substance use treatment at a specialty facility in the past year decreased 1.5 percentage points in South Dakota in the same timeframe (NSDUH, Figure 3.34).
- In 2018-2019, 6.9% of South Dakota adults went untreated at a specialty facility for substance use in the past year, which is the first time South Dakota was lower than the United States in the recorded timeframe (7.2%; NSDUH, Figure 3.34).

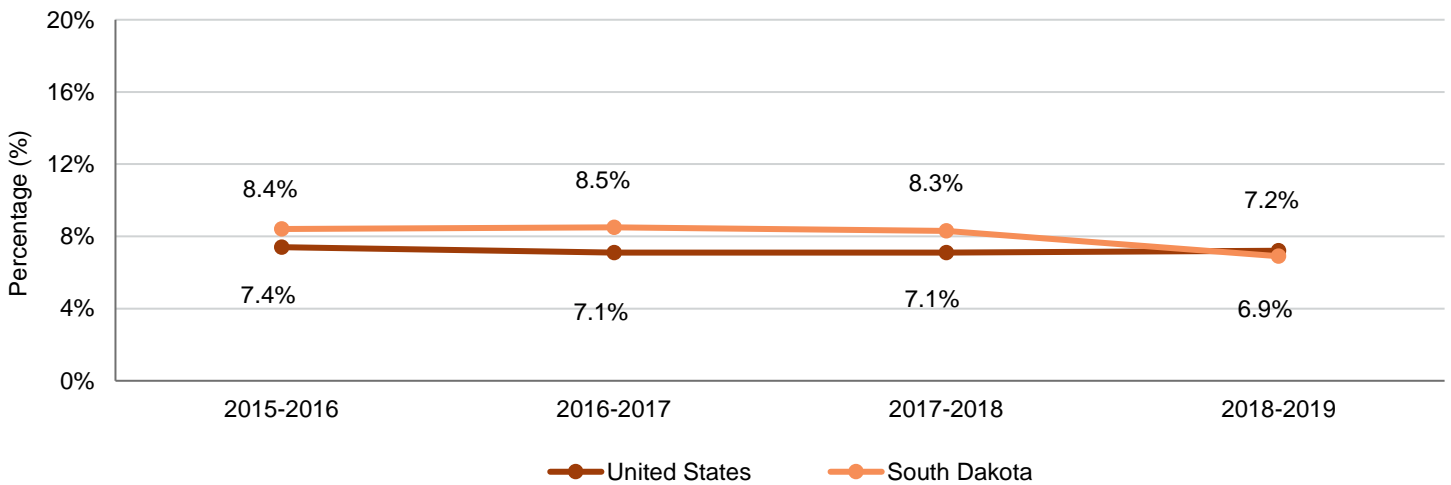


Key Takeaway:

South Dakota's prevalence of adults who went untreated for substance use at a specialty facility decreased between 2015-2016 and 2018-2019.

Figure 3.34 Needing But Not Receiving Treatment at a Specialty Facility for Substance Use in the Past Year, Adults Ages 18+

Source: NSDUH



Medication Assisted Treatment (MAT), is one of the most effective and safest options available for Opioid Use Disorder (OUD).

MAT is the use of FDA-approved medications used in combination with counseling and behavioral health therapies that provide a whole-patient approach to treatment. It is tailored specifically to each individual. Patients and providers determine whether MAT best fits the patient's needs.

For more information regarding MAT, please visit <https://www.avoidopioidsd.com/find-help/medication-assisted-treatment/>

Substance Use in South Dakota – Adolescent

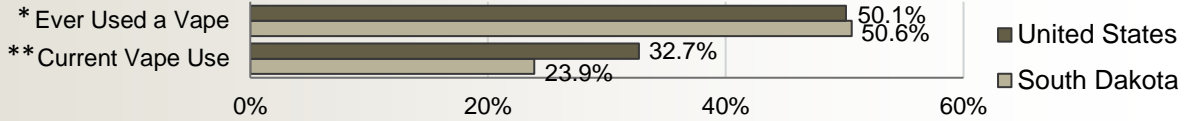
Substance Use

Figure 3.35 Illicit Drug Use Amongst High School Students

Source: YRBSS, 2019

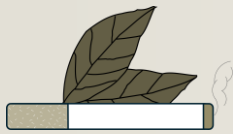


Vaping

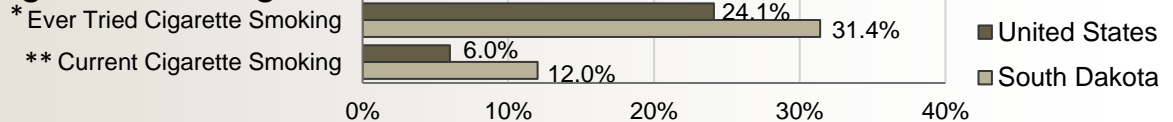


*Ever used an Electronic Vapor Product, which includes e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods.

**Current use is defined as using a vapor product, which include e-cigarettes, vapes, vape pens, e-cigars, e-hookah pens, and mods, on at least 1 say during the 30 days before the survey.



Cigarette Smoking

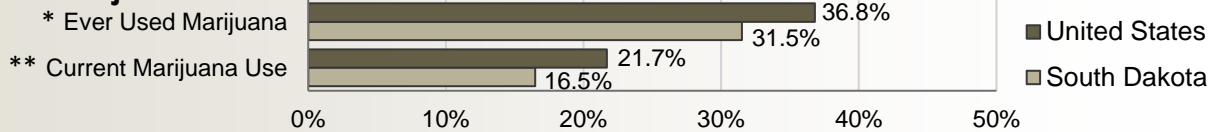


*Ever tried cigarette smoking indicates participant has smoked, even one or two puffs.

**Current use indicates participant smoked a cigarette on at least 1 day during the past 30 days before the survey.



Marijuana

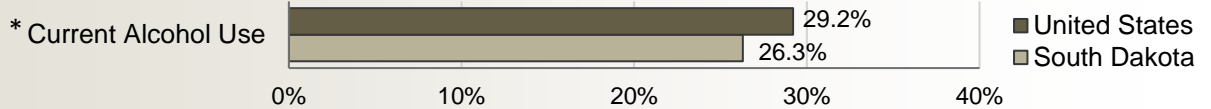


*Also called pot, weed, or cannabis, one or more times during their life.

**Current marijuana, pot, weed, or cannabis use is defined by smoking this on one or more times during the past 30 days before the survey.



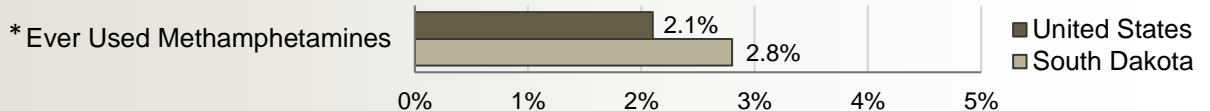
Alcohol Use



*Current alcohol use indicates that participant used at least one drink of alcohol, on at least 1 day during the 30 days before the survey.



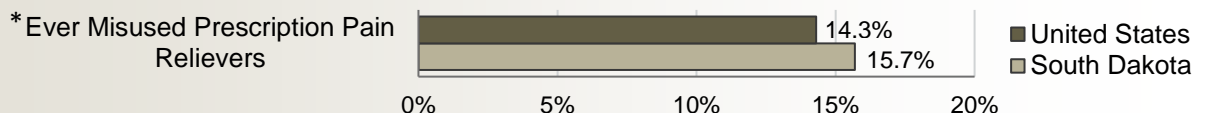
Methamphetamine



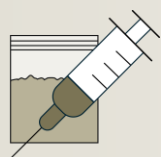
*Also called "speed," "crystal meth," "crank," "ice," or "meth," one or more times during their life.



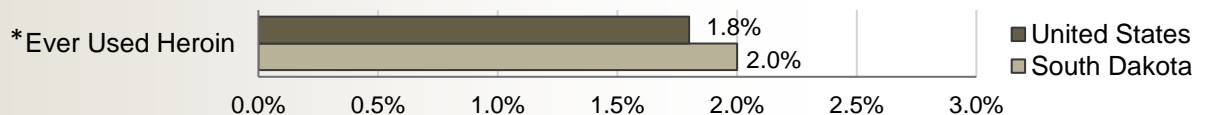
Prescription Pain Reliever Misuse



*Measures drug misuse of codeine, Vicodin, Oxycontin, Hydrocodone, Percocet, one or more times during their life.



Heroin



*Heroin may also be referred to as "smack," or "junk," one or more times during their life.

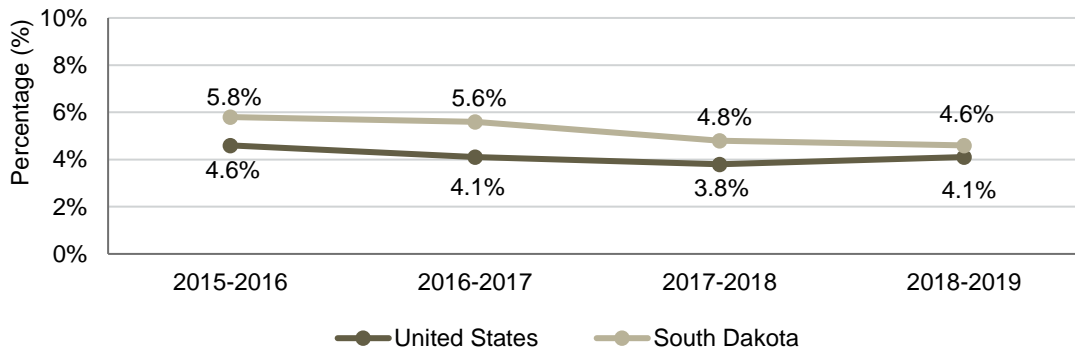
Substance Use Disorder

Definition: substance use disorder (SUD) meets criteria for illicit drug or alcohol dependence or abuse.

- The prevalence of youth with a substance use disorder (SUD) decreased in both the United States and South Dakota. In the United States, youth with a SUD decreased from 4.6% in 2015-2016 to 4.1% in 2018-2019, and in South Dakota, youth with a SUD decreased from 5.8% to 4.6% in the same timeframe (NSDUH, Figure 3.36).
- South Dakota consistently had a higher prevalence of youth with a SUD than the United States, but the prevalence has been decreasing between 2015-2016 to 2018-2019 (NSDUH, Figure 3.36).

Figure 3.36 Substance Use Disorder in the Past Year, Youth 12-17

Source: NSDUH



Key Takeaway:

South Dakota's prevalence of youth with a SUD in the past year decreased between 2015-2016 and 2018-2019.

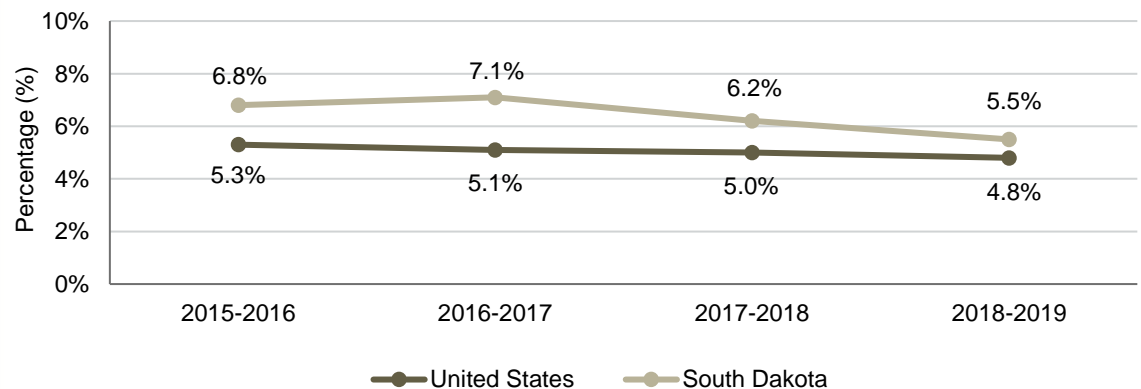
Binge Alcohol Use

Definition: drinking five or more drinks (for males) or four or more drinks (for females) on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days.

- The prevalence of binge alcohol use amongst youth in the past month decreased in South Dakota and the United States. South Dakota's prevalence of youth binge alcohol drinking in the past month decreased from its highest at 7.1% in 2016-2017 to 5.5% in 2018-2019 (NSDUH, Figure 3.37).
- South Dakota's prevalence of youth binge alcohol drinking has consistently remained higher than the United States (NSDUH, Figure 3.37).

Figure 3.37 Binge Alcohol Drinking in the Past Month, Youth 12-17

Source: NSDUH



Key Takeaway:

South Dakota's prevalence of youth binge alcohol drinking in the past month decreased between 2015-2016 and 2018-2019.

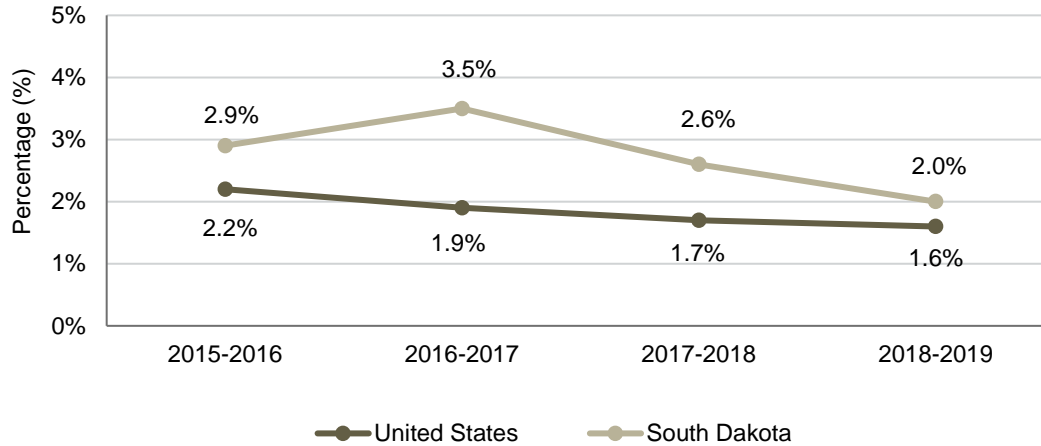
Alcohol Use Disorder

Definition: Alcohol Use Disorder (AUD) meets criteria for alcohol dependence or abuse.

- The United States' prevalence of youth with an AUD in the past year has decreased steadily from 2.2% to 1.6% between 2015-2016 to 2018-2019, while South Dakota's prevalence rose from 2.9% in 2015-2016 to 3.5% in 2016-2017 and then decreased to 2.0% in 2018-2019 (NSDUH, Figure 3.38).
- Past year AUD amongst youth in South Dakota peaked at 3.5% in 2016-2017 (NSDUH, Figure 3.38).

Figure 3.38 Alcohol Use Disorder in the Past Year, Youth 12-17

Source: NSDUH



Key Takeaway:

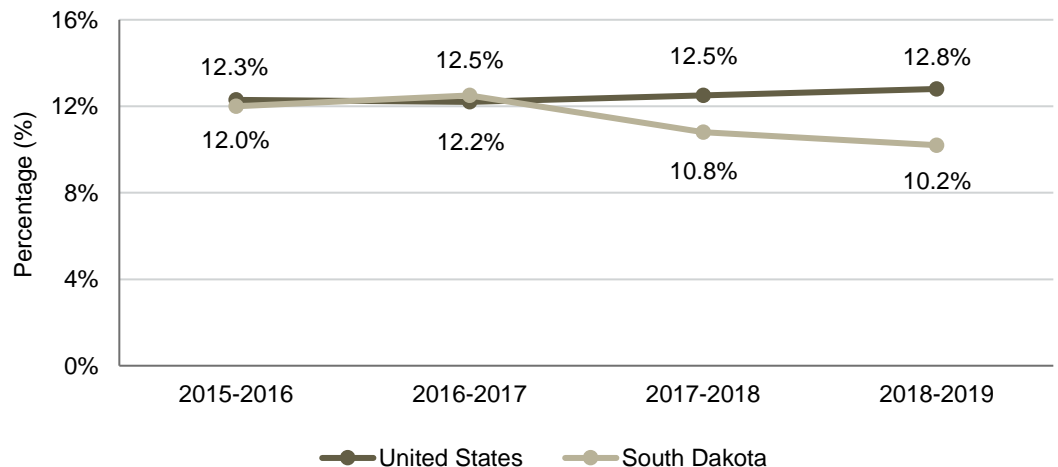
South Dakota's prevalence of youth with an AUD in the past year decreased 1.5 percentage points between 2016-2017 and 2018-2019.

Marijuana Use

- The United States' prevalence of youth using marijuana in the past year exceeded South Dakota in every year except 2016-2017 (NSDUH, Figure 3.39).
- The prevalence of South Dakota youth using marijuana in the past year decreased from 12.0% to 10.2%, or about 2 percentage points, between 2015-2016 and 2018-2019 (NSDUH, Figure 3.39).

Figure 3.39 Marijuana Use in the Past Year, Youth 12-17

Source: NSDUH



Key Takeaway:

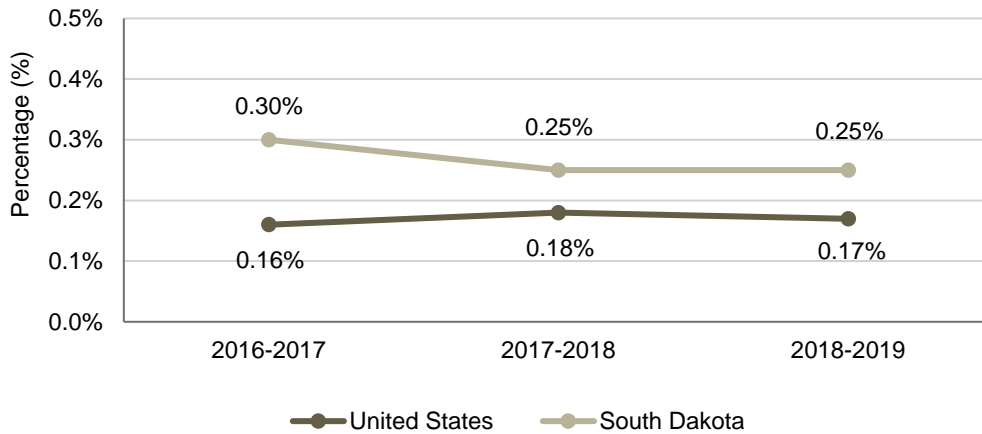
South Dakota's prevalence of youth using marijuana in the past year decreased between 2015-2016 and 2018-2019.

Methamphetamine Use

- The prevalence of methamphetamine use in the past year amongst youth in South Dakota decreased from 0.30% to 0.25% between 2016-2017 and 2018-2019, while the United States had a small increase in youth methamphetamine use during this timeframe (NSDUH, Figure 3.40).
- South Dakota's prevalence of past year methamphetamine use amongst youth exceeds the United States' prevalence in all recorded years (NSDUH, Figure 3.40).

Figure 3.40 Methamphetamine Use in the Past Year, Youth 12-17

Source: NSDUH



Key Takeaway:

South Dakota's prevalence of youth using methamphetamine in the past year decreased between 2016-2017 and 2018-2019.

Pain Reliever Misuse

- The prevalence of South Dakota youth misusing pain relievers in the past year decreased from 4.1% to 2.7% between 2015-2016 and 2018-2019. This was a decrease of 1.4 percentage points. The United States exhibited a similar decrease in youth misuse of pain relievers (NSDUH, Figure 3.41).
- The prevalence of past year pain reliever misuse in South Dakota youth has been higher than the youth in the United States in all recorded years (NSDUH, Figure 3.41).

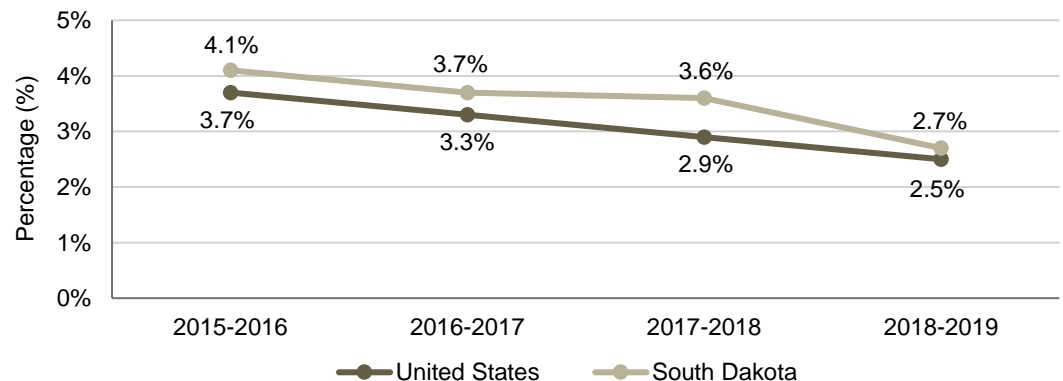
Figure 3.41 Pain Reliever Misuse in the Past Year, Youth 12-17

Source: NSDUH



Key Takeaway:

South Dakota's prevalence of youth misusing pain relievers in the past year decreased between 2015-2016 and 2018-2019.

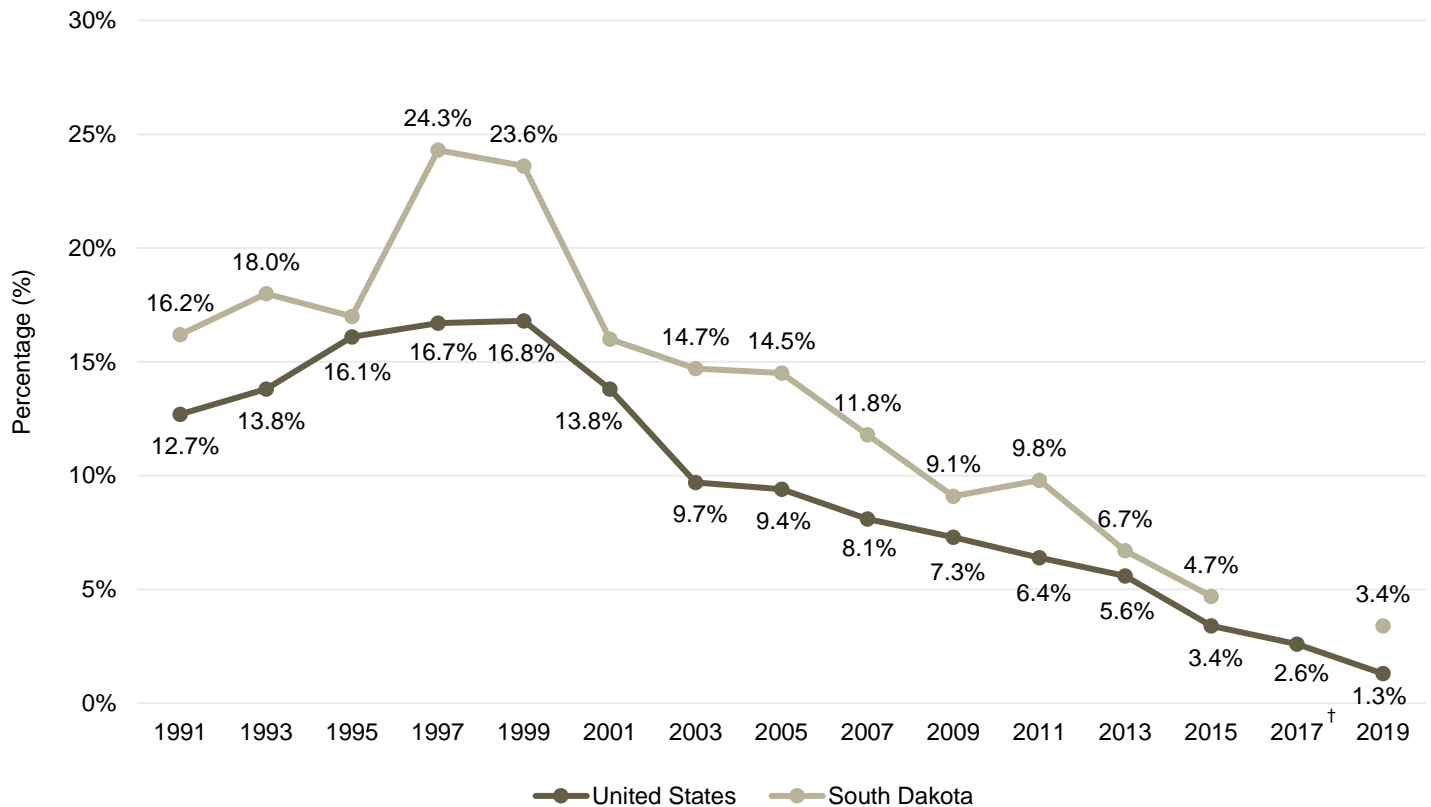


Smoking Cigarettes or Vapor Products

- South Dakota high school students that currently smoked cigarettes frequently* decreased from the highest prevalence of 24.3% in 1997 to 3.4% in 2019, or a decrease of 20.9 percentage points (YRBSS, Figure 3.42).
- In 2019, the prevalence of South Dakota high school students that currently smoked cigarettes frequently* was more than twice that of the United States (YRBSS, Figure 3.42).

Figure 3.42 High School Students Currently Smoked Cigarettes Frequently*

Source: YRBSS

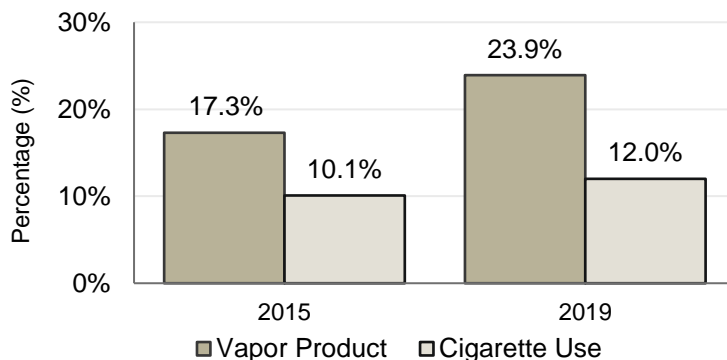


*Frequently is defined as smoking 20 or more days during the past 30 days prior to the survey.

† YRBSS did not collect data for South Dakota in 2017.

Figure 3.43 Current Cigarettes Use and Current Vapor Product Use in the Past 30 Days, 2015 vs. 2019, Amongst South Dakota High School Students

Source: YRBSS



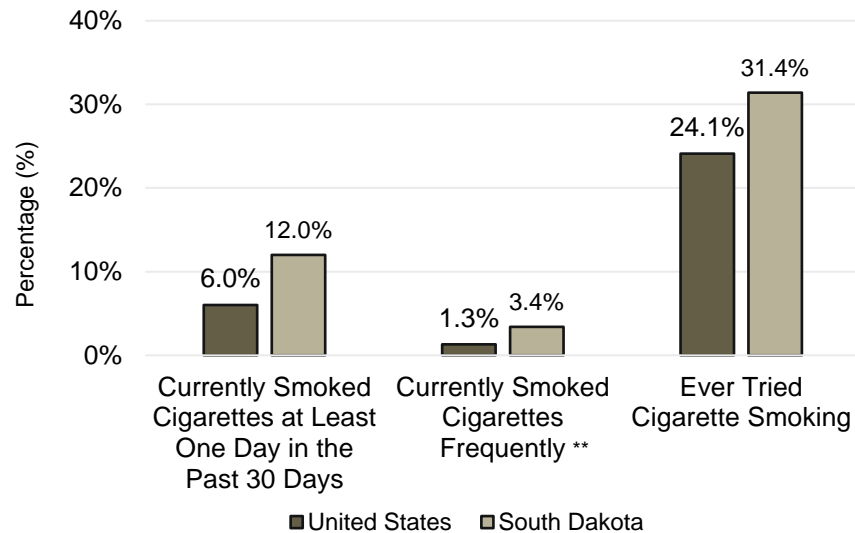
Key Takeaways:

Between 2015 and 2019, the use of vapor products has increased 6.6 percentage points and cigarette use has increased by 1.9 percentage points.

- In 2019, this is the second lowest recorded prevalence of cigarette use amongst high school students since 1991 in South Dakota (12.0%).
- In 2019, this is the highest recorded prevalence of current vapor product use for South Dakota high school students (23.9%) since the induction of this measure in 2015.

Figure 3.44 High School Students Use of Cigarettes

Source: YRBSS, 2019



Key Takeaways:

12.0% of South Dakota high school students reported they currently smoked cigarettes at least one day in the past 30 days, which was twice that of the United States.

3.4% of South Dakota high school students reported they currently smoked cigarettes frequently, which is more than twice as high as the United States.

31.4% of South Dakota high school students reported trying cigarette smoking (even one or two puffs) at one point in their life, which is 7.3 percentage points higher than the United States.

Quick Facts



The majority of South Dakota youth (63.7%) believed there was great risk from smoking one or more packs of cigarettes per day.

Source: NSDUH, 2018-2019



Nearly one-third (28.0%) of South Dakota high school students reported currently smoking cigarettes or using electronic vapor products.

Source: YRBSS, 2019

Figure 3.45 South Dakota High School Students Use of Electronic Vapor Products

Source: YRBSS, 2019



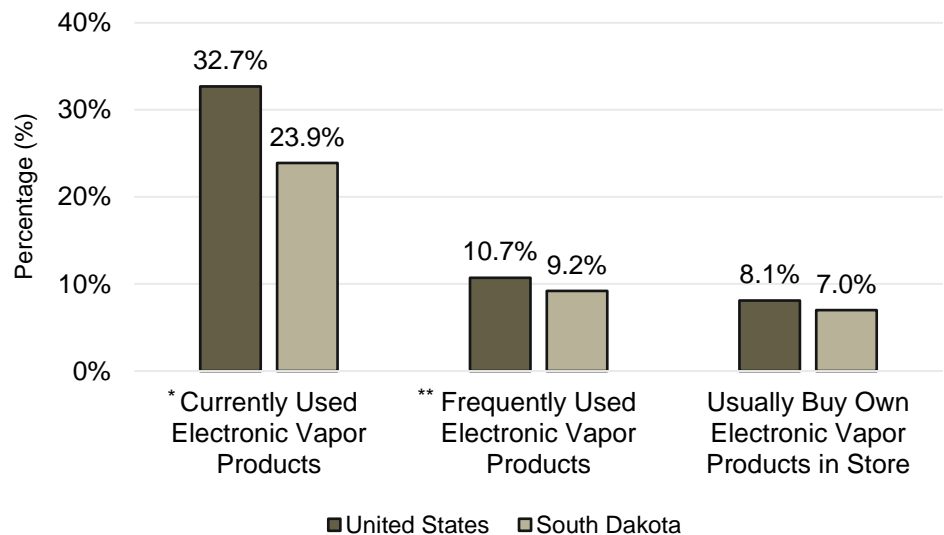
Key Takeaways:

South Dakota had a lower prevalence of currently used electronic vapor, frequently used electronic vapor and usually buying their own electronic vapor product than the United States.

23.9% of South Dakota high school students currently used electronic vapor products.

9.2% of South Dakota high school students frequently used electronic vapor products.

7.0% of South Dakota high school students usually bought their own electronic vapor product in a store.



* Currently indicates the use of e-cigarettes, vapes, e-cigars, e-hookahs, hookah pens, and mods, on at least 1 day during the 30 days prior to the survey.

** Frequently is defined as smoking 20 or more days during the past 30 days prior to the survey.

Substance Use Treatment

Definition: Needing But Not Receiving Substance Use Treatment refers to respondents who are classified as needing illicit drug or alcohol treatment, but who did not receive illicit drug or alcohol treatment at a specialty facility.

- The prevalence of youth untreated for substance use at a specialty facility in the past year decreased in South Dakota from 5.0% to 4.4% between 2015-2016 and 2018-2019 or 0.6 percentage points (NSDUH, Figure 3.46).
- South Dakota's prevalence of past year untreated youth for substance use at a specialty facility exceeded the United States in all reported years (NSDUH, Figure 3.46).

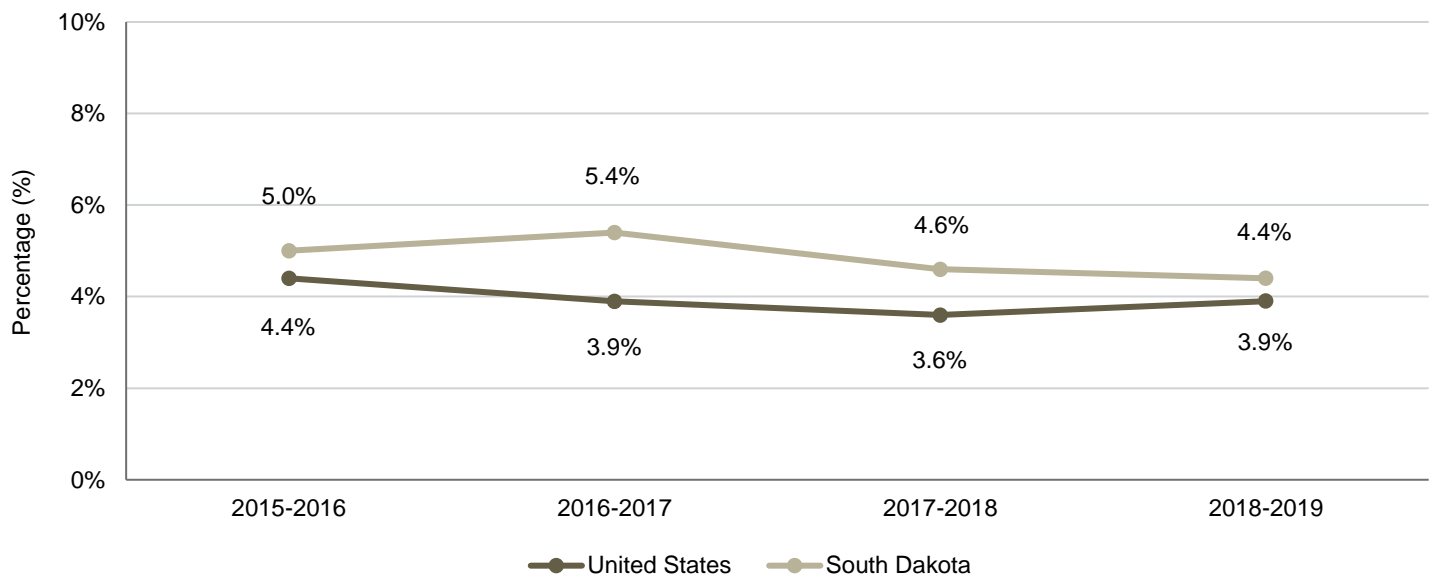


Key Takeaway:

There has been a general decrease in untreated substance use disorder at a specialty facility in the past year amongst youth in South Dakota between 2015-2016 and 2018-2019.

Figure 3.46 Needing But Not Receiving Treatment at a Specialty Facility for Substance Use in the Past Year, Youth 12-17

Source: NSDUH



Additional Sources

1. Substance Abuse and Mental Health Services Administration. Projections of National Expenditures for Treatment of Mental and Substance Use Disorders, 2010–2020. HHS Publication No. SMA-14-4883. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2014.
2. U.S. Department of Health and Human Services (HHS), Office of the Surgeon General, *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health*. Washington, DC: HHS, November 2016.
3. Sacks JJ, Gonzales KR, Bouchery EE, Tomedi LE, Brewer RD. 2010 national and state costs of excessive alcohol consumption. *Am J Prev Med*. 2015; 49(5):e73-e79.
4. National Drug Intelligence Center. National drug threat assessment. Washington, DC: U.S. Department of Justice; 2011.
5. Beardslee WR, Chien PL, Bell CC. Prevention of mental disorders, substance abuse, and problem behaviors: A developmental perspective. *Psychiatr Serv*. 2011; 62(3), 247-254.
6. Lynch FL, Peterson EL, Lu CY. *et al*. Substance use disorders and risk of suicide in a general US population: a case control study. *Addiction Sci Clin Parct* **15**, 14 (2020). DOI: <https://doi.org/10.1186/s13722-020-0181-1>.
7. Yeh HH, Westphal J, Hu Y, Peterson EL, *et al*. Diagnosed Mental Health Conditions and Risk of Suicide Mortality. *Psychiatr Serv*. 2019 Sep 1;70(9):750-757. DOI: 10.1176/appi.ps.201800346.
8. Miller JN and Black DW. Bipolar Disorder and Suicide: a Review. *Curr Psych Rep*. 2020 Jan 19;22(6). DOI: <https://doi.org/10.1007/s11920-020-1130-0>.
9. Isometsä E. Suicidal behaviour in mood disorders--who, when, and why? *Can J Psychiatry*. 2014 Mar;59(3):120-30. DOI: 10.1177/070674371405900303.
10. Sher L, Kahn RS. Suicide in Schizophrenia: An Educational Overview. *Medicina (Kaunas)*. 2019 Jul 10;55(7):361. DOI: 10.3390/medicina55070361.
11. Ehlman DC, Yard E, Stone DM, Jones CM, Mack KA. Changes in Suicide Rates – United States, 2019 and 2020. *MMWR Morb Mortal Wkly Rep*. 2022;71:306-312. DOI: <http://dx.doi.org/10.15585/mmwr.mm7108a5>.
12. South Dakota Department of Health. (2022). South Dakota Suicide Surveillance Report: Suicide Surveillance, South Dakota.
13. Center for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQUARS) [Online].
14. National Research Council and Institute of Medicine. 2009. *Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities*. Washington, DC: The National Academies Press. DOI: 10.17226/12480.
15. Kessler RC, Berglund P, Demler O, *et al*. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of Gen Psychiatr*. 62:593-602, 2005.

Data Resources



