



MOUNTAIN PLAINS EVALUATION, LLC



# Mountain Plains Evaluation South Dakota Suicide Prevention Needs Assessment

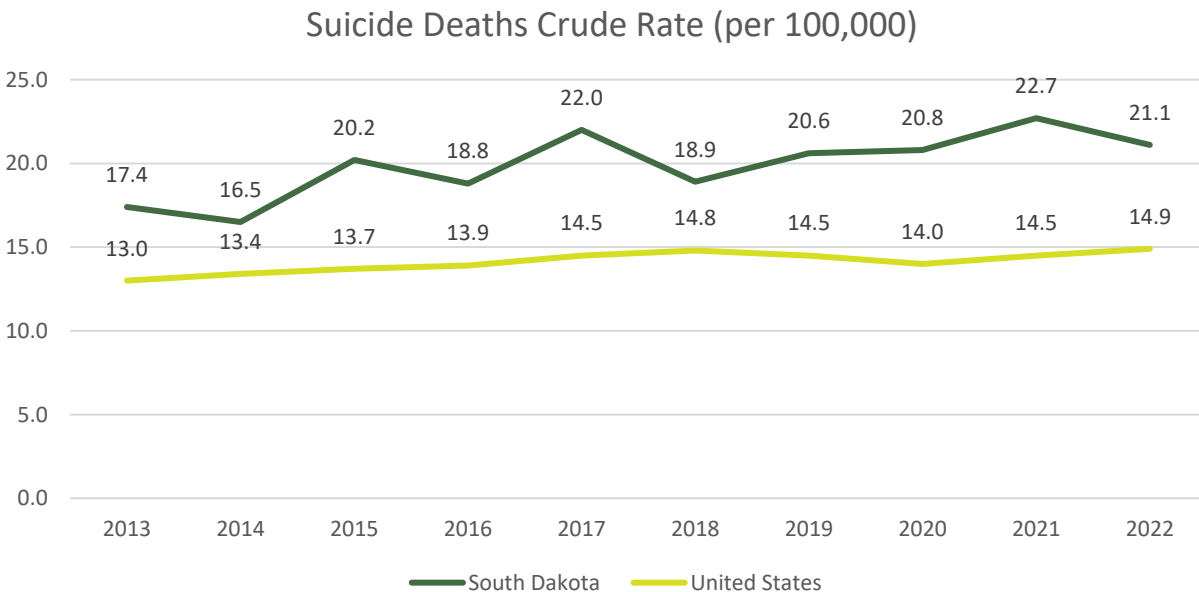
## Purpose of Needs Assessment

Suicide, the prevalence of suicide ideation, and other suicide risk factors is a multifaceted complex issue that requires accurate and robust data to inform and guide prevention efforts. Ongoing and continuous monitoring of suicide and suicide risk factors at the individual and community level are essential in order for prevention efforts to adapt and respond to changes in community needs.

The purpose of this needs assessment is to explore relevant suicide and suicide risk related data to guide in enhancing and expanding suicide prevention capacity across the State. Two key aspects of prevention capacity are availability of resources and the readiness to apply those resources to a need.

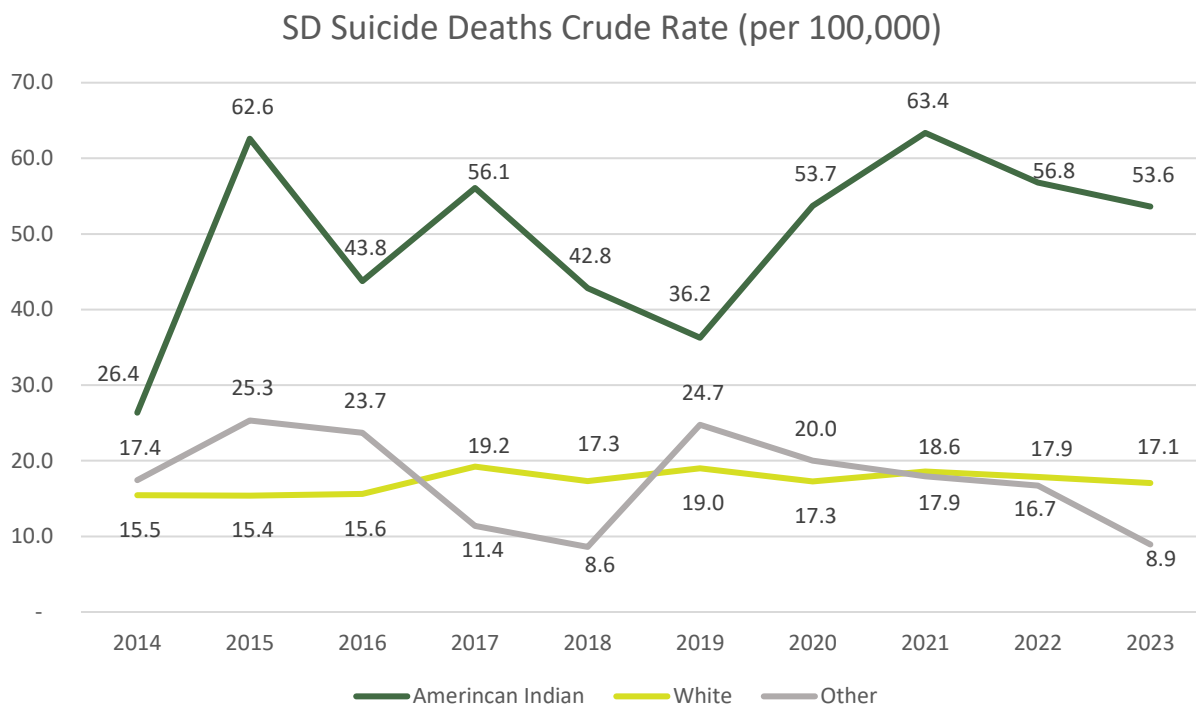
## Brief Background of Suicide Data

South Dakota, when compared to national data, has experienced elevated rates of suicide in the broad population and within sub-populations. Over the past ten years, the overall rate of suicide in South Dakota was approximately one third higher than the national rate each year. For example, in 2022 the national suicide death rate per 100,000 individuals was 14.9 while in South Dakota the rate per 100,000 individuals was 21.1. For 2021, only five other states (Alaska, Colorado, Montana, New Mexico, and Wyoming) had overall suicide rates higher than South Dakota. The graph below illustrates the difference between the national suicide death rate compared to the South Dakota suicide death rate as well as illustrates an overall upward trend in the suicide death rate since 2013.



\*CDC Wonder Mortality Rates

Suicide disproportionately affects South Dakota's American Indian population. In 2023, the suicide rate (53.6 per 100,000) was over three times higher than the rate for South Dakota's White population (17.1 per 100,000).



\*CDC Wonder Mortality Rates

Within the American Indian population, the rate and risk for suicide is substantially higher for younger individuals between 10 and 29 years of age with suicide rates significantly higher than the White population. In the White population, rates begin to rise, particularly for males, at age 30 through 59.

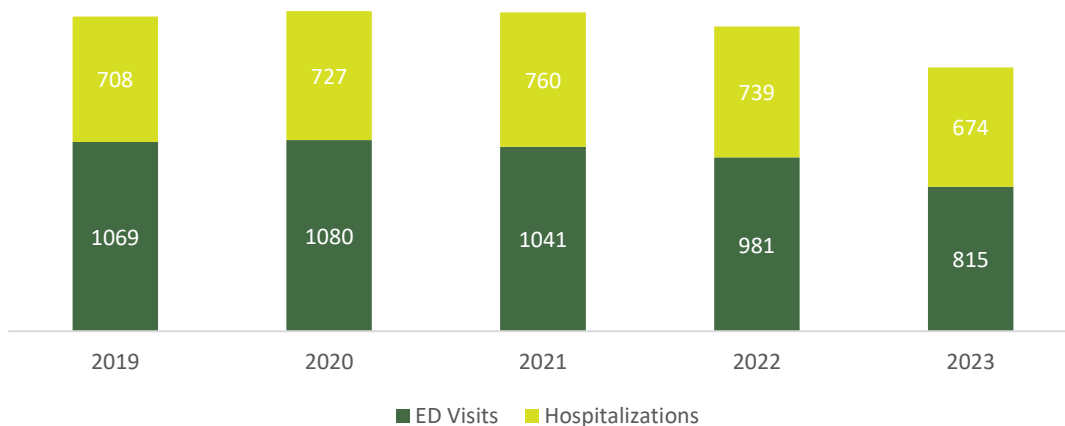
Suicide methods also vary by gender and race. Males tend to use more lethal means such as firearms and hanging/suffocation than females. Overall, based on suicide data from 2014 through 2023, firearms were the means used in the largest proportion of suicide deaths for the White population compared to hanging/suffocation for the American Indian population.

Please refer to the South Dakota Suicide surveillance Report from September 2024 at <https://doh.sd.gov/media/2lbd2lgl/suicide-surveillance-report-2024.pdf> for a more in depth discussion and additional data.

The above data speaks to incidence in which a death occurred from suicide. It should also be noted that each year there are over 1,400 hospitalizations and emergency department visits as a result of self-inflicted injuries that did not result in a death. The number of incidences from

self-inflicted injuries with suicidal intent substantially increases the number of individuals at elevated risk for suicide within our communities across South Dakota. Of individuals receiving care for self-inflicted injuries, 63% are female, 39% are between age 10 and 19 and 26% between age 20 and 29, 53% are identified as White and 35% as Native American. Please refer to <https://sdsuicideprevention.org/data/> for further details.

### Self-Inflicted Injuries by Year



\*South Dakota Department of Health: Suicide Data

## Suicide Risk and Contributing Factors

### Suicide Ideation

Thoughts of suicide or suicide ideation is an additional indicator that is used to assess and guide prevention efforts on the individual and population level. While there is not a unified definition of suicidal ideation, the concept refers to a range of thoughts in which the individual is contemplating or thinking about suicide. Further probing of the individual is often employed at the clinical level and within population-based surveys that inquire if they have made a plan regarding how they would attempt or die by suicide. Often, the combination of the two questions [Seriously considered suicide? and made a plan to commit suicide?] can help assess and quantify the level of risk present within an individual or a population.

Data from the National Survey of Drug Use and Health (NSDUH), conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA) collected annually, estimates the prevalence of suicide ideation in the population. Based on data from 2012 through 2022, there is an increased trend in the prevalence of suicide ideation within the population across all age groups. A substantial increase in suicide ideation has occurred with the 18 to 25 age group in which the prevalence of suicide ideation has nearly doubled from 7.3% in 2012 to 13.5% in 2022 for South Dakota. A similar increase is also seen with in the national data for the same time period.

Had Serious Thoughts of Suicide in the Past Year



\*NSDUH State Level Data

An overall increase was noted in the 26 and older population within South Dakota, but at a much lower rate than the 18-to-25-year age group. Unfortunately, the NSDUH only collected

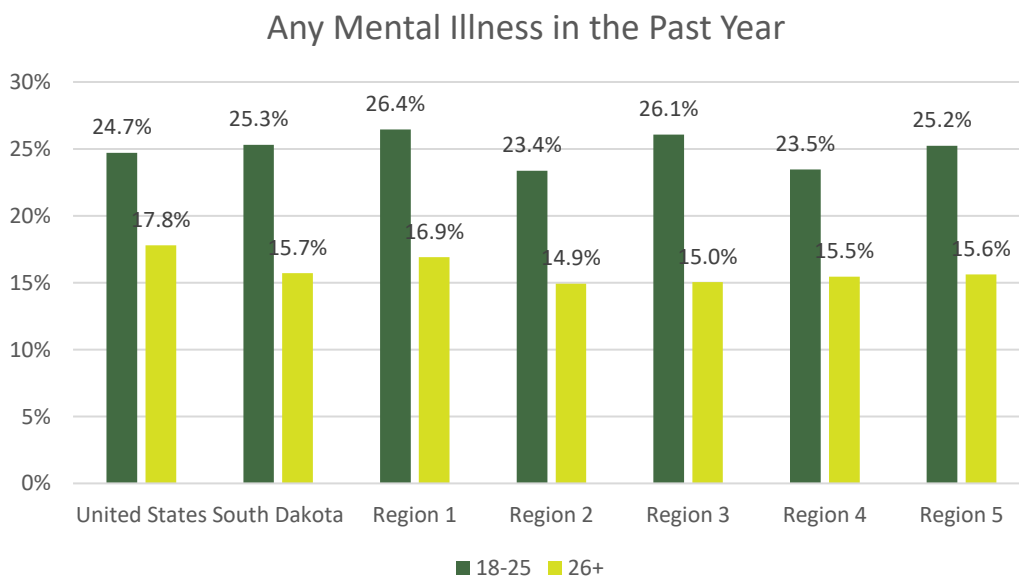
suicide ideation data in 2022 for the 12- to 17-age group. In that data period, the NSDUH estimates that 14.3% of 12- to 17-year-olds reported serious thoughts of suicide in the past year. It should be noted that the estimated rate in 12- to 17-year-olds is the highest rate across all age groups.

The Youth Risk Behavior Survey conducted with high school students across the State estimates the prevalence of suicide ideation to be 17.1% in 2023. In 2021 the estimate was 21.5% and in 2019 it was 23.1%. Please refer to the South Dakota Department of Health Youth Risk Behavior Survey (YRBS) data & Reports available at <https://doh.sd.gov/health-data-reports/youth-risk-behavior-survey-yrbs-data-reports/>.

Note the following section utilizes data from the National Survey on Drug Use and Health (NSDUH) data set that provides sub-state data on a regional level. It should be noted that NSDUH is not updated consistently and the data is approximately two years behind the current timeframe.

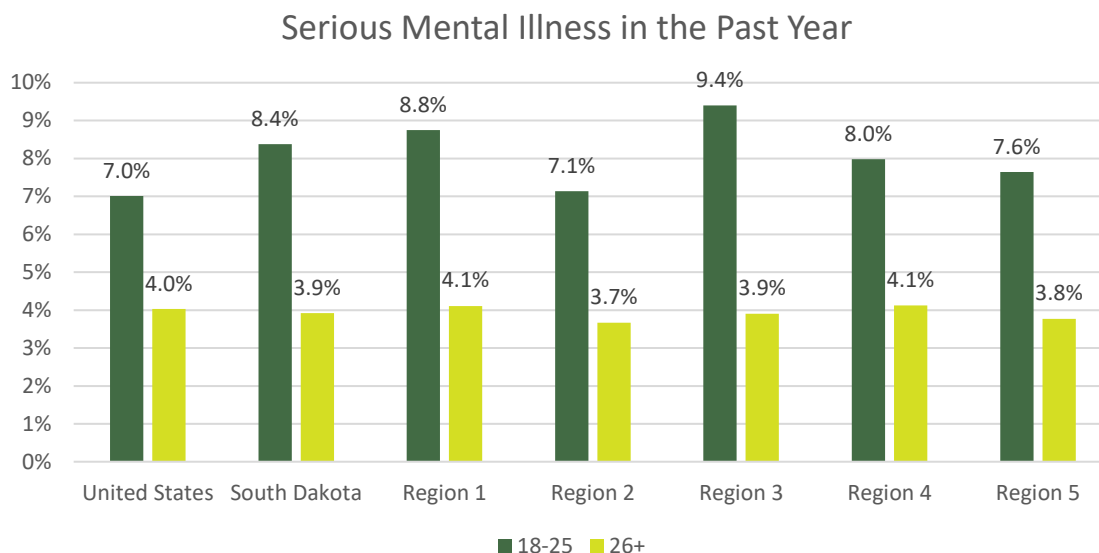
### Depression and Mental Illness

Depression and mental illness are noted as one of the strongest risk factors contributing to suicide ideation, making a plan, attempting suicide, and death by suicide. The NSDUH also inquires about mental illness in the past year. This data indicator highlights a concern for the age group of 18- to 25-year-olds as the overall state average is slightly above the national average with three of the five regions being above the national average. On the positive side, individuals age 26 and older in South Dakota report a lower rate of “Any Mental Illness in the Past Year” compared to the national average. Please refer to the map of Behavioral Health Regions at the end of the report.



\*NSDUH Substate Level Data \*\* Please see map of Behavioral Health Regions at end of report

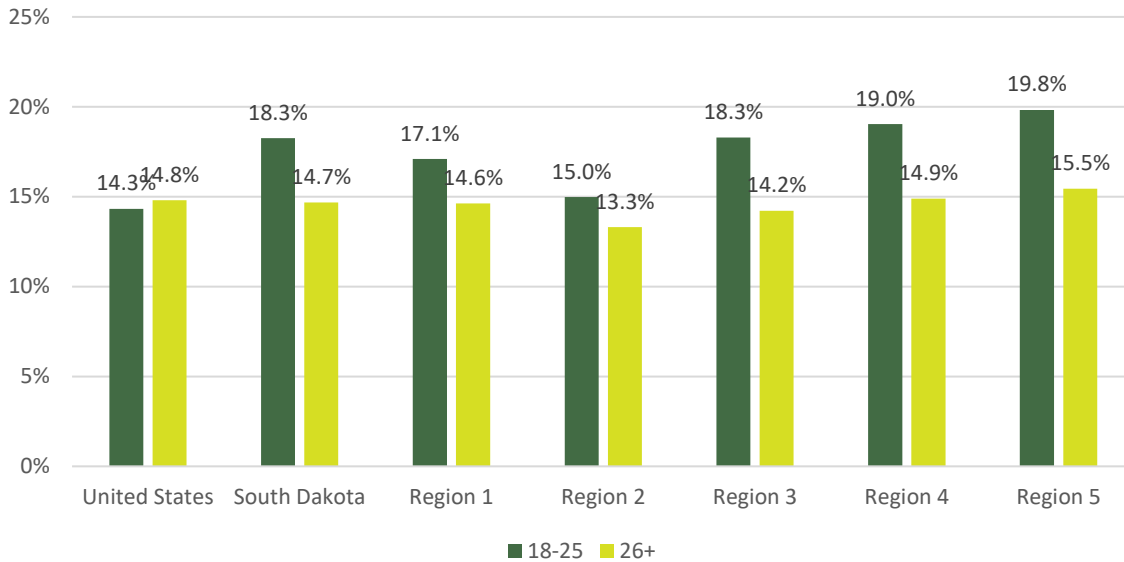
Further inquiry by the NSDUH examines more serious mental health symptoms and categorizes them as “Serious Mental Illness”. Again, the age group of 18- to 25-year-olds report higher rates across the state and for each region compared to the national average for the same age group.



\*NSDUH Substate Level Data \*\* Please see map of Behavioral Health Regions at end of report

When asked about receipt of mental health services, the 18-to-25-year age group reports higher rates of receiving mental health services than the national average across South Dakota and for each of the regions. On one hand, this can be considered a positive indicator in that a larger proportion have received mental health services than their national peers. On the other hand, it shows and illustrates a large section of our 18-to-25-year-old population has experienced mental health symptoms that have reached the severity level that required with a mental health service provider.

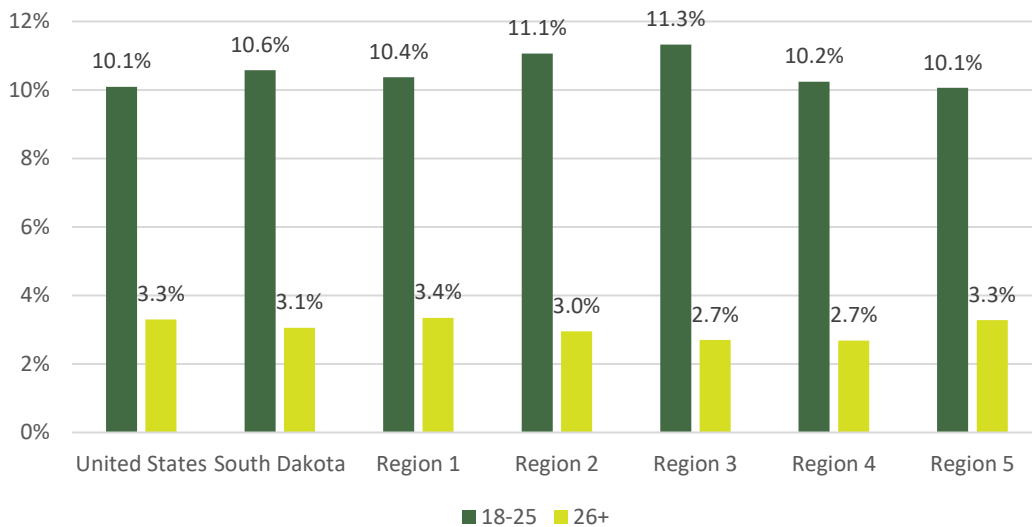
## Received Mental Health Services in the Past Year



\*NSDUH Substate Level Data \*\* Please see map of Behavioral Health Regions at end of report

Consistent with the trends seen above, the 18-to-25-year age group across the state and in four of the five regions have reported slightly higher rates of suicide ideation compared to their national peers. Individuals in the 26 and older age group report suicide ideation rates similar or equal to the national rates.

## Serious Thoughts of Suicide in the Past Year

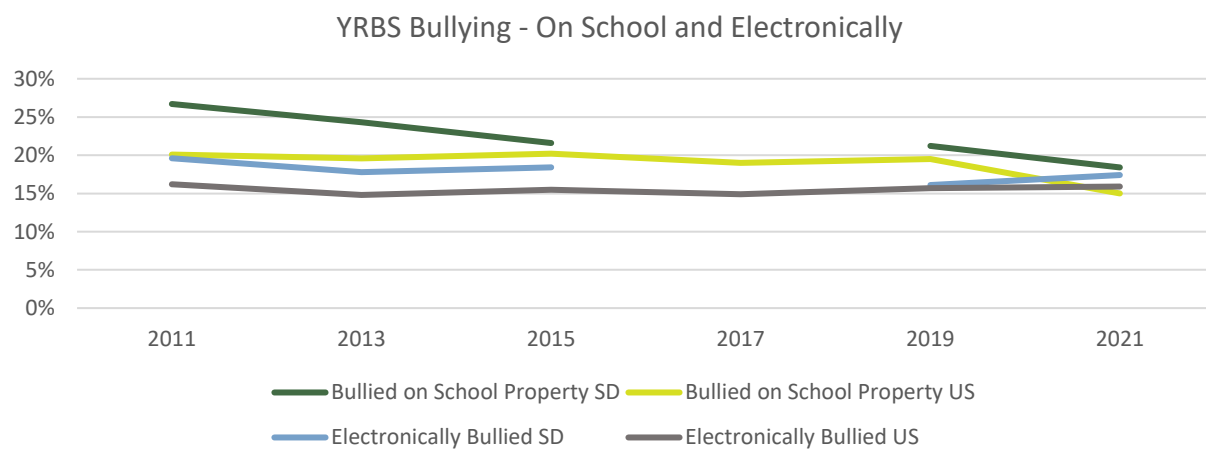


\*NSUDH Substate Level Data \*\* Please see map of Behavioral Health Regions at end of report



## Bullying

Exposure to bullying, being the target of aggressive behavior, being systematically excluded or left out, or experiencing teasing is associated with elevated risk for suicide ideation and suicide. Exposure to bullying reported by South Dakota high school students has decreased in the last ten years, from 27% to 18% while report of electronic bullying has remained relatively stable at 17-18%. Review of results of a local student survey including a collection of small to large schools reported 17.3% of high school students reported being bullied in the past year. Percentages were higher for middle school and elementary with 40.7% and 44.1% reporting being bullied.

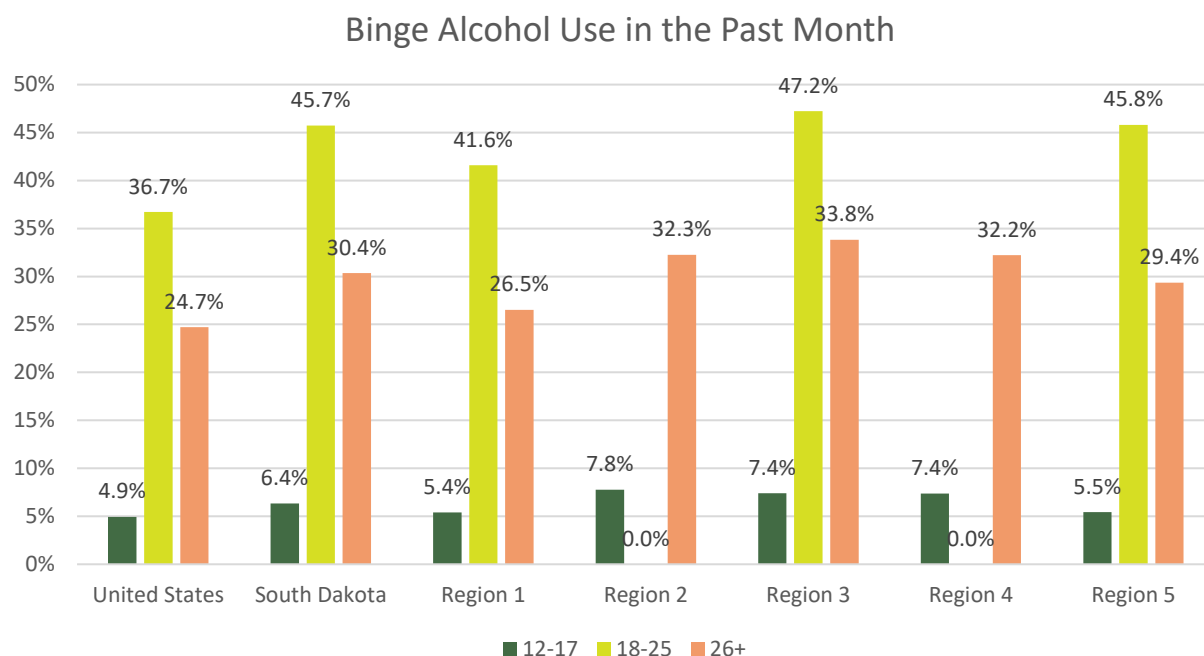


\*YRBS Bullying Data

\*\* Note YRBS data was not available for 2017 for South Dakota

## Substance Use: Alcohol

Research has linked alcohol use, and in particular heavy alcohol use, and other substance use to increased risk for suicide. In particular, alcohol drinking behaviors that result in high blood alcohol concentrations (BAC) elevates risk for suicide and self-harm. Binge drinking is defined as 5 drinks for males and 4 drinks for females in one sitting or drinking episode. South Dakota has historically been a “binge” alcohol State, being ranked in the top few states for the highest rate of binge drinking when compared with other States. In the most recent data available from the NSDUH and BRFSS, the binge drinking rate for South Dakota has dropped to the 18th highest when compared to other states. This is a positive sign overall, but our binge drinking rate in the high-risk age group of 18- to 25-year-olds is nearly 10% above the national average for the same age group. The following graph compares data available from the NSDUH for South Dakota and each behavioral health region to the national rates by the age groups. Sample sizes for Regions 2 and 4 did not reach statistical thresholds due to small sample size and thus are suppressed.



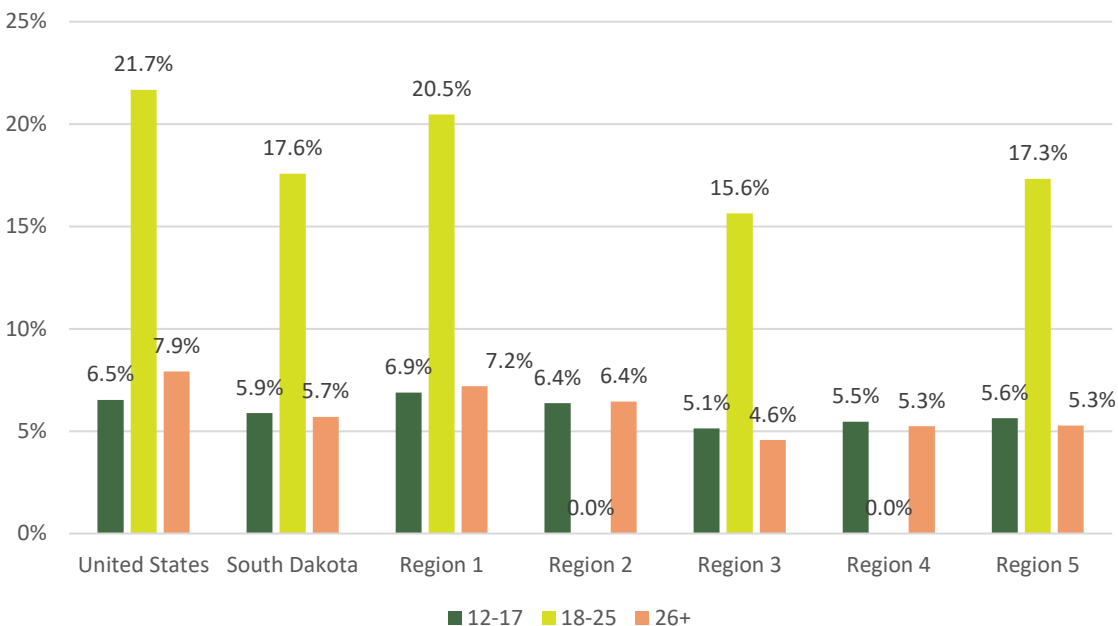
\*NSDUH Substate Level Data \*\* Please see map of Behavioral Health Regions at end of report

## Substance Use: Marijuana

Research using the NSDUH data has identified increases in suicide ideation, making a plan, and suicide attempt with marijuana use (Han et al, JAMA 2021). Comparison of marijuana use in the past month and the past year for South Dakota compared to the national average indicates that overall, South Dakotan’s use of marijuana in the past month is lower than the national average. This is a critical data point to monitor as recent efforts have legalized medical marijuana in the State and there continues to be a push to legalize recreational marijuana use in the State. These

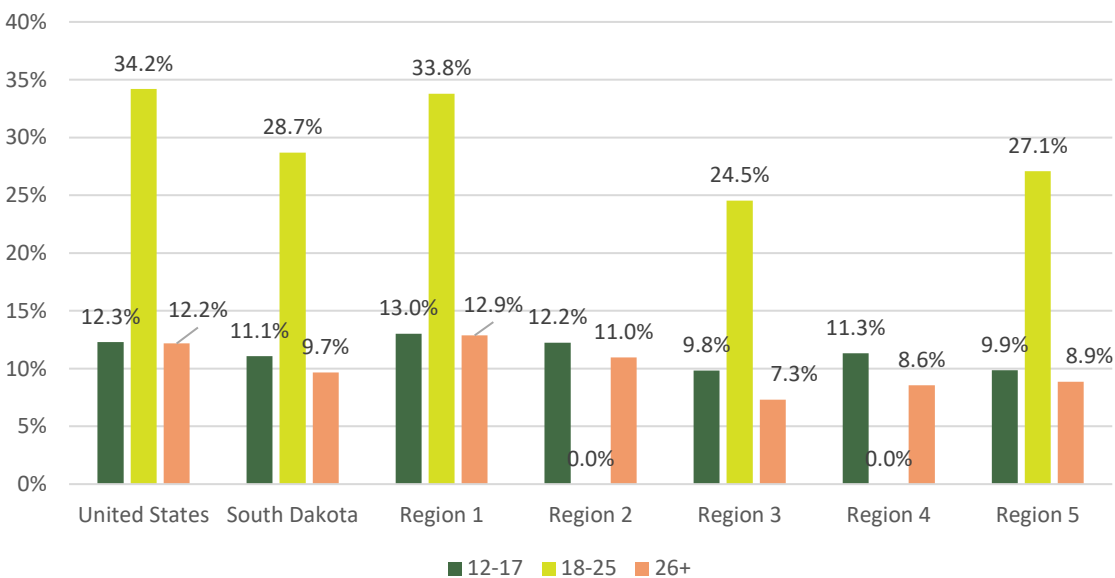
efforts and media campaigns continue to ‘normalize’ the use of marijuana products in pursuit of the goal of legalization of recreational marijuana. These efforts tend to have the effect of lowering people’s perception of harm from the substance and increasing usage overtime.

### Marijuana Use in the Past Month



\*NSDUH Substate Level Data \*\* Please see map of Behavioral Health Regions at end of report

### Marijuana Use In the Past Year



\*NSDUH Substate Level Data \*\* Please see map of Behavioral Health Regions at end of report

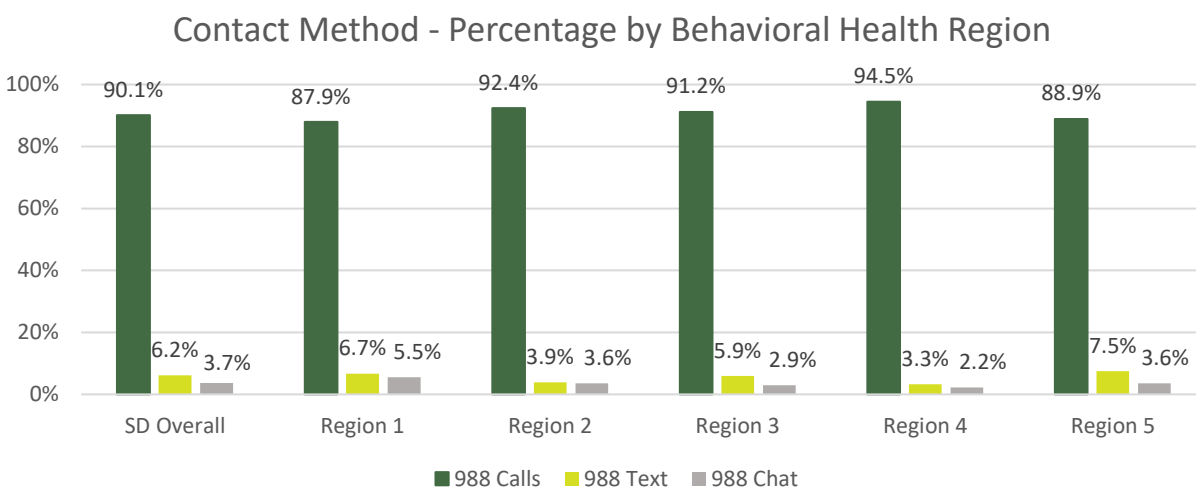
## State Suicide Prevention Effort

South Dakota has embraced a range of prevention strategies targeted at prevention of suicide and self-harm guided by the South Dakota Suicide Prevention Strategic Plan (<https://www.sdsuicideprevention.org/action/state-plans>). Strategies employed include 988 crisis call, chat and texting services; support and conducting suicide prevention trainings; awareness campaigns; means safety efforts; prevention programming within schools and universities; and efforts to provide follow-up services to survivors.

### 988 Suicide and Crisis Lifeline Services

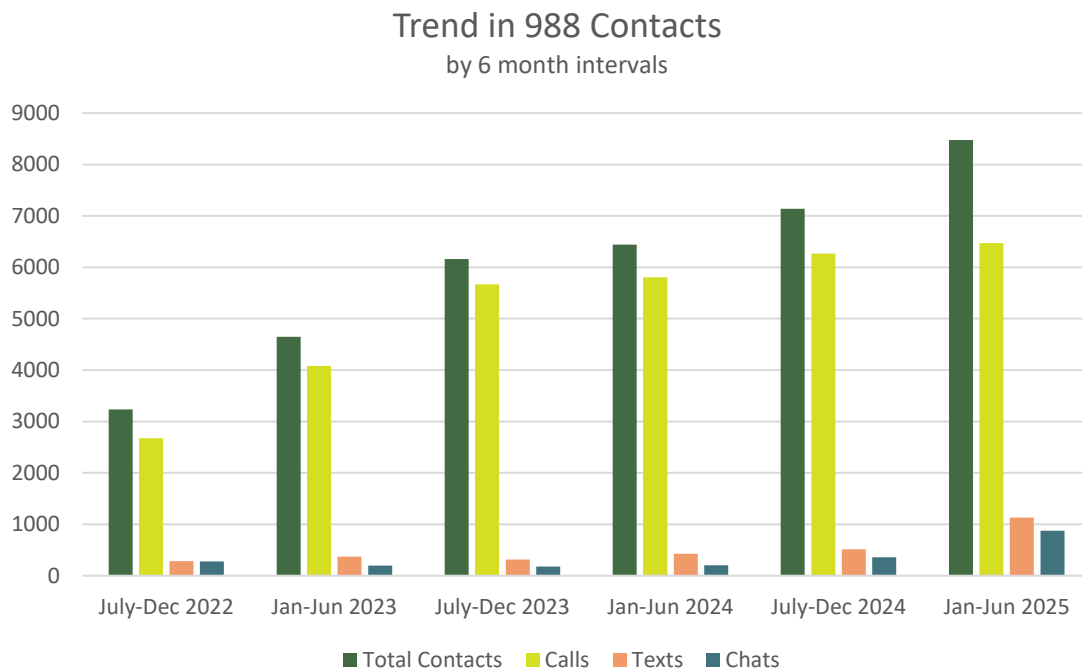
The Helpline Center operates the 988 Suicide and Crisis Lifeline providing 24-hour access to support for those in need or crisis. 988 services can be accessed through calls, text messaging or chat. The Helpline Center provided data on 988 contacts received from January 1, 2023 through December 31, 2023 for analysis. Utilization of the 988 services can serve as an additional proxy for the need within our population. The data on 988 calls, texts, and chats can be analyzed based on geographic region of the State. For the purpose of this analysis, the data was grouped into the five behavioral health regions and is summarized below.

The mode for 90% of contacts was via a telephone call to 988 and this was fairly consistent across the Behavioral Health Regions with the exception of Region 4 in which 95% of the contacts occurred via telephone call. The next most prominent contact is via text followed by chat. This information is summarized in the graph below.



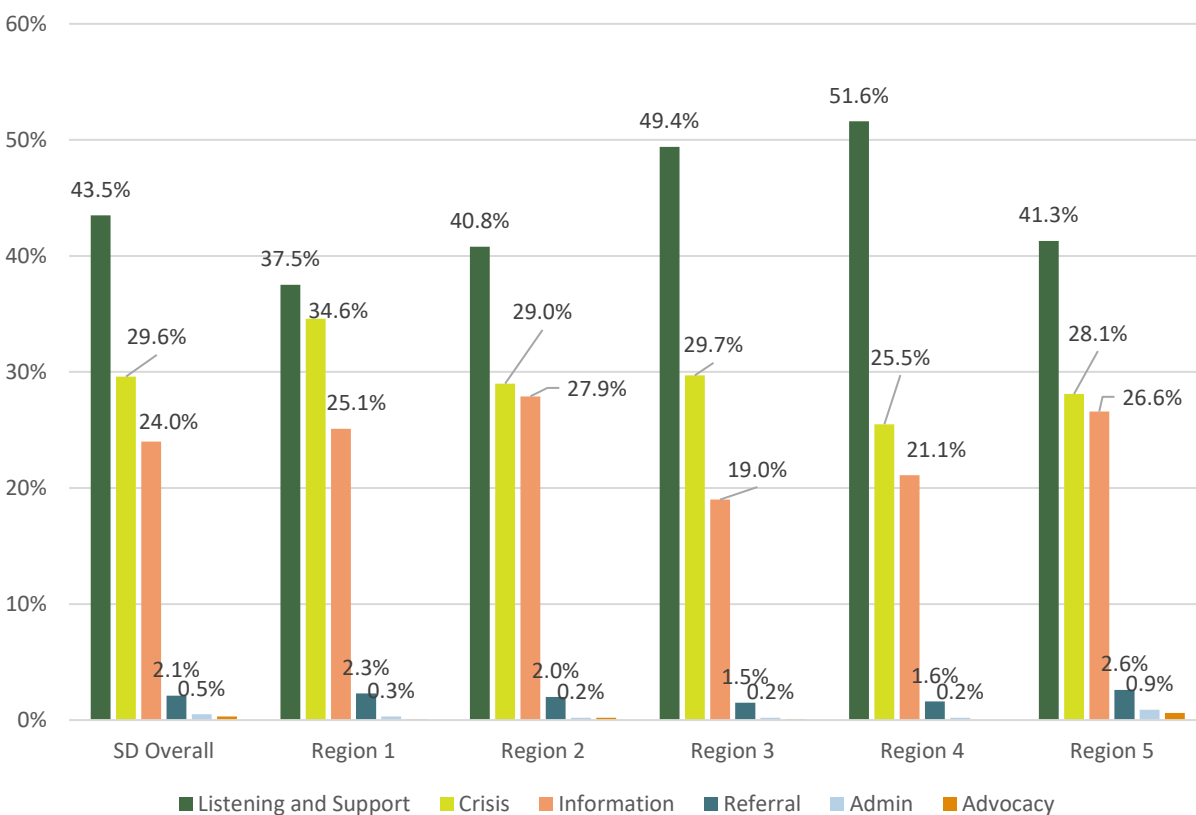
\*988 Suicide and Crisis Lifeline Call Data 2023 \*\* Please see map of Behavioral Health Regions at end of report

Overall, the trend in 988 contacts via telephone call, text or chat has continued to increase since the service began in July 2022.



Contacts to 988 are categorized into six primary reasons: Listening and Support, Crisis, Information, Referral, Administrative, and Advocacy. Statewide, nearly 44% of contacts were classified under Listening and Support. This was followed by Crisis-related contacts at nearly 30%, and Information-related contacts at 24%. Region 1, located in the westernmost part of the state, had the highest percentage of crisis-related contacts, with 34.6% of contacts identified as having crisis as the primary reason.

988 Call Type - Percentage by Behavioral Health Region



\*988 Suicide and Crisis Lifeline Call Data 2023 \*\* Please see map of Behavioral Health Regions at end of report

In addition to classifying the call as noted above, the primary presenting concern is also documented within the Helpline Center’s 988 contact system MIS. The tables below provide a summary of the number of calls by each presenting concern for the entire state and by Behavioral Health Region. Overall, for the state, nearly 20% of the calls were noted as “Suicide” as the presenting concern.

Presenting Concern - SD Overall		
Presenting Concern	Count	Percentage of Total Calls
Suicide	1900	19.8%
No Concern Listed	1709	17.8%
Relationship/Family Issues	1254	13.0%
Anxiety	1252	13.0%
Depression	1088	11.3%
Other Concerns	2413	25.1%
Total	9616	100.0%

Presenting Concern - SD Behavioral Health Region 1		
Presenting Concern	Count	Percentage of Total Calls in Region
Suicide	459	21.8%
No Concern Listed	372	17.7%
Depression	248	11.8%
Relationship/Family Issues	245	11.7%
Anxiety	227	10.8%
Other Concerns	552	26.2%
Total	2103	100.0%

Presenting Concern - SD Behavioral Health Region 2		
Presenting Concern	Count	Percentage of Total Calls in Region
No Concern Listed	152	23.0%
Suicide	130	19.6%
Relationship/Family Issues	84	12.7%
Substance Use	73	11.0%
Depression	68	10.3%
Other Concerns	155	23.4%
Total	662	100.0%

Presenting Concern - SD Behavioral Health Region 3		
Presenting Concern	Count	Percentage of Total Calls in Region
Suicide	431	19.9%
No Concern Listed	311	14.4%
Depression	303	14.0%
Anxiety	300	13.9%
Relationship/Family Issues	285	13.2%
Other Concerns	532	24.6%
Total	2162	100.0%

Presenting Concern - SD Behavioral Health Region 4		
Presenting Concern	Count	Percentage of Total Calls in Region
Anxiety	231	19.1%
Suicide	199	16.5%
No Concern Listed	187	15.5%
Relationship/Family Issues	180	14.9%
Depression	123	10.2%
Other Concerns	288	23.8%
Total	1208	100.0%

Presenting Concern - SD Behavioral Health Region 5		
Presenting Concern	Count	Percentage of Total Calls in Region
No Concern Listed	691	19.6%
Suicide	690	19.6%
Relationship/Family Issues	466	13.2%
Anxiety	438	12.4%
Depression	352	10.0%
Other Concerns	891	25.3%
Total	3528	100.0%

\*988 Suicide and Crisis Lifeline Call Data 2023

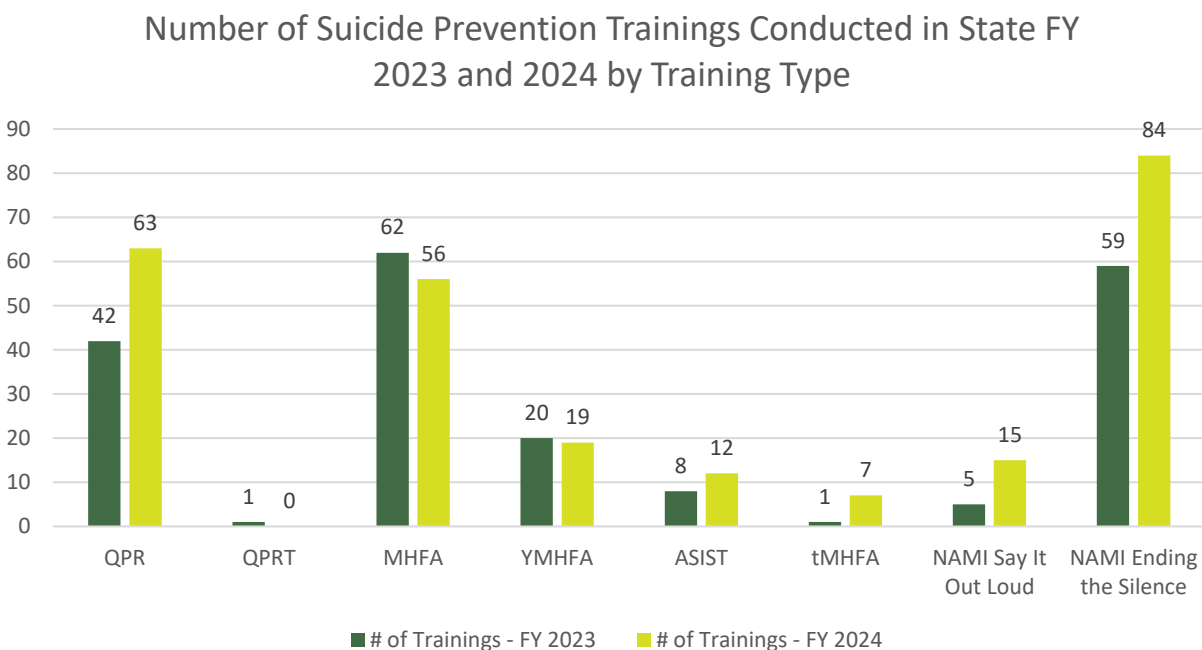


## Suicide Prevention Training

The South Dakota Department of Social Services, Division of Behavioral Health has coordinated the provision of suicide prevention training across the State since 2019. The intent of this effort is to enhance the availability of Suicide Prevention Trainings to organizations, agencies, and communities across the State. The types of Suicide Prevention trainings supported through the project include:

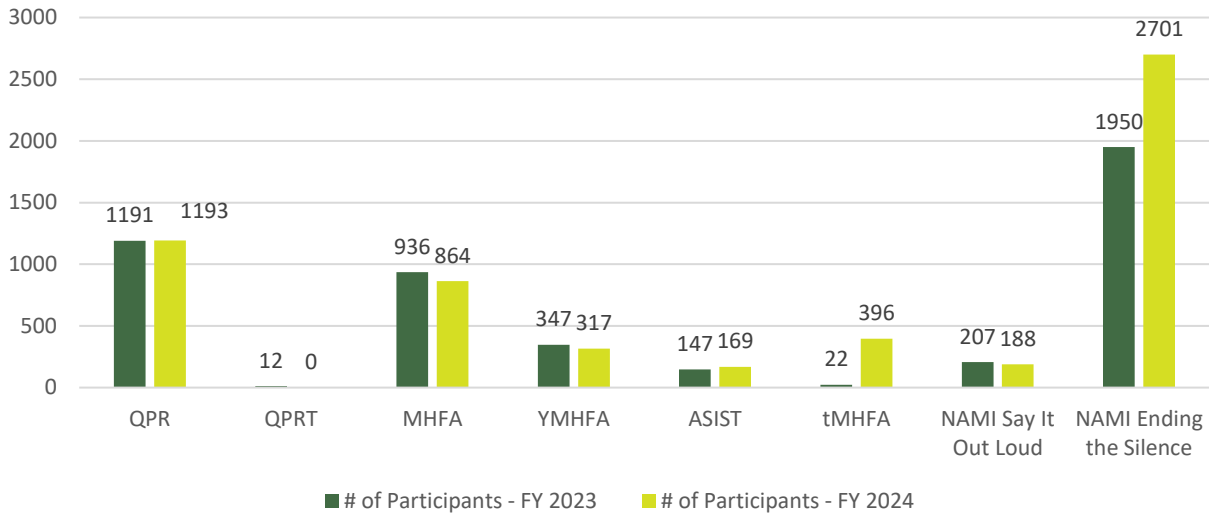
- Mental Health First Aid (MHFA)
- Youth Mental Health First Aid (YMHFA)
- Applied Suicide Intervention Skills Training (ASIST)
- Question, Persuade and Refer (QPR)
- Question, Persuade, Refer, and Treat (QPRT)
- Teen Mental Health First Aid (tMHFA)
- National Alliance on Mental Illness (NAMI) Ending the Silence
- National Alliance on Mental Illness (NAMI) Say it Out Loud

During state fiscal year 2023 and 2024, there were over 10,000 individuals who participated in the training. The following graphs summarize the number of trainings and participants of those trainings for state fiscal years 2023 and 2024.



\*DSS Suicide Prevention Training Data

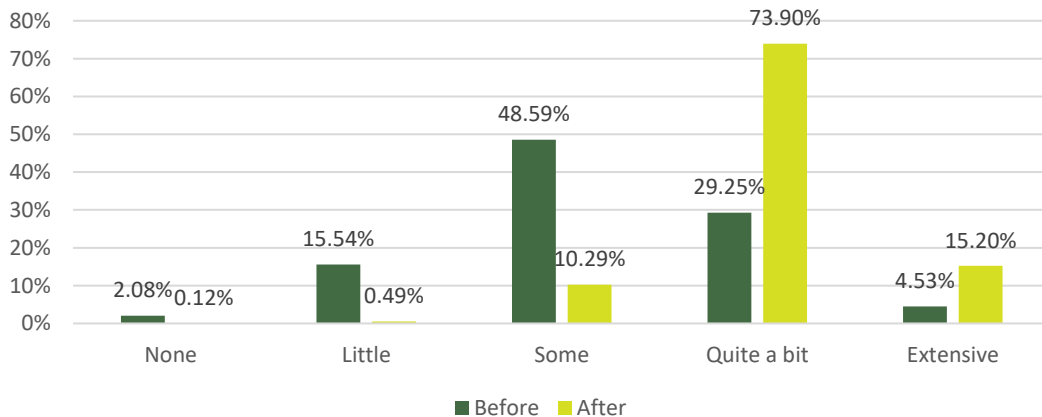
## Number of Participants in Suicide Prevention Trainings for State FY 2023 and 2024 by Training Type



\*DSS Suicide Prevention Training Data

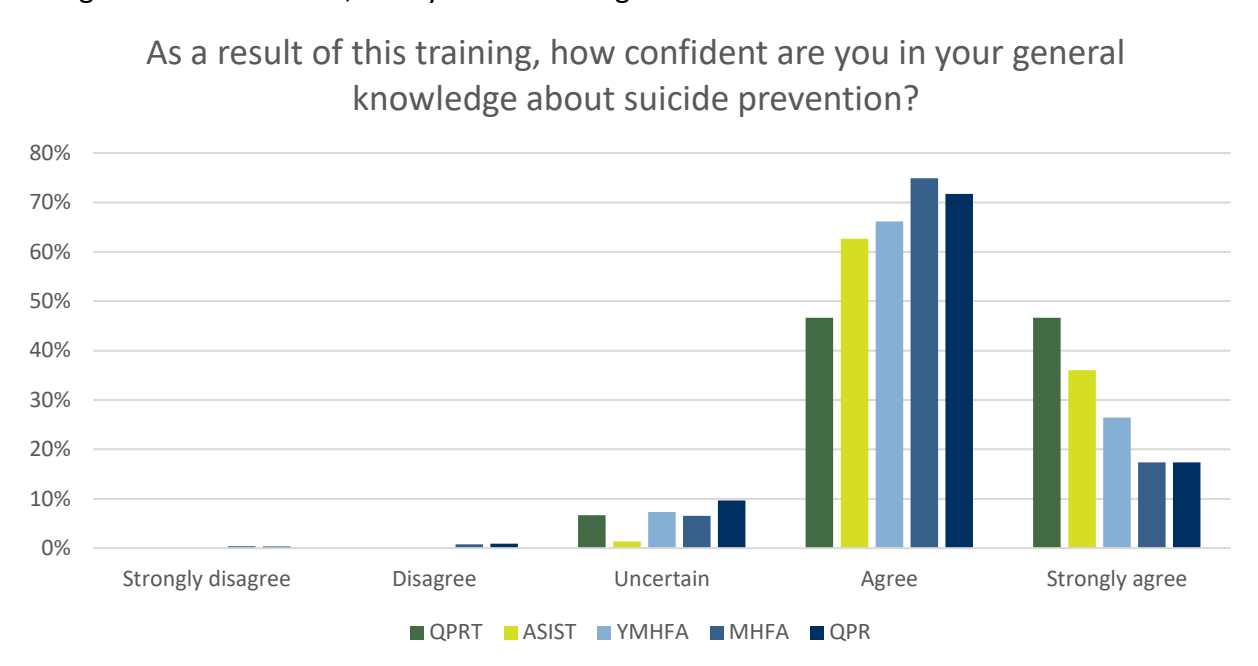
Participants in QPR, QPRT, MHFA, YMHFA, ASIST and tMHFA trainings that consent, are asked to complete a short follow-up survey regarding the training three to six months after completion of the training. Overall, approximately 54% of participants are reporting increases in knowledge as “Quite a bit” or “Extensive” at follow-up three to six months’ post training.

## How would you rate your level of knowledge of suicide prevention prior to the training you participated in?

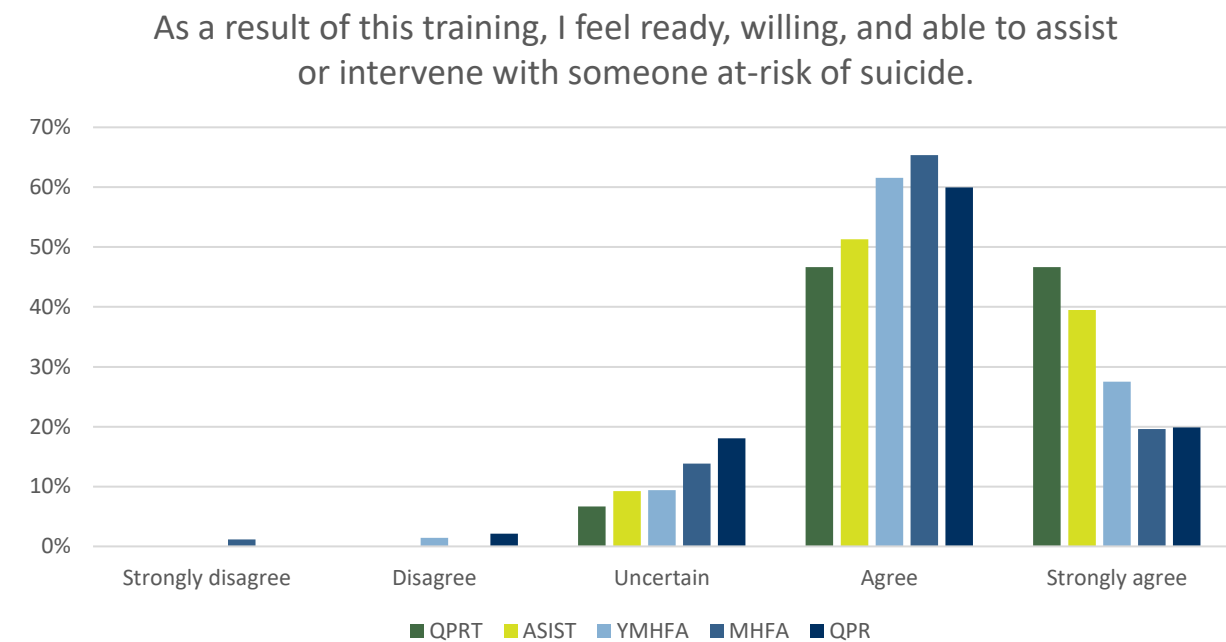


\*DSS Suicide Prevention Training Data

The follow-up survey, collected three to six months after training, also asks participants about their basic knowledge regarding suicide and confidence and ability to respond to assist a person at risk for suicide. The following graph shows the results of the follow-up survey indicating a strong level of confidence, ability and knowledge to assist an individual at risk for suicide.

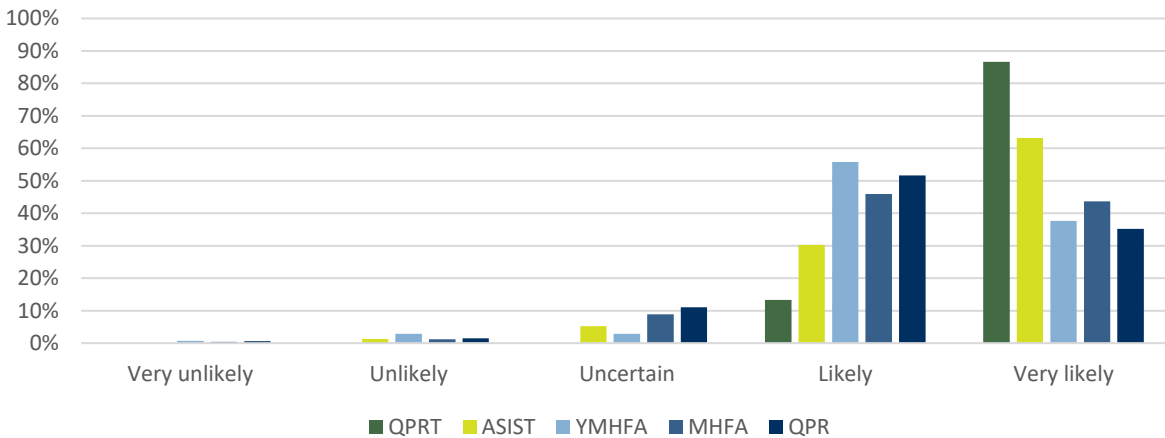


\*DSS Suicide Prevention Training Data



\*DSS Suicide Prevention Training Data

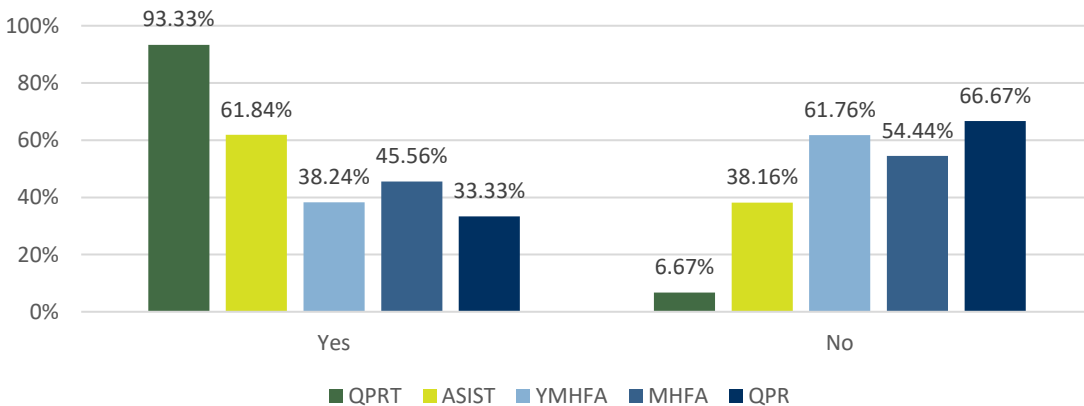
If you have concerns about someone's wellbeing, how likely are you to ask someone if they are having thoughts of suicide?



\*DSS Suicide Prevention Training Data

Finally, training participants are asked if they have used the materials presented in the suicide prevention training since completing the training. Over 93% of QPRT and 60% of ASIST training participants report they have used the material since participating in the training. On average, forty percent (40%) of participants in YMHFA, MHFA, and QPR trainings report utilizing the training materials since completing the training.

Since the training, have you used information shared in the training in working with an individual that may be at risk for suicide?



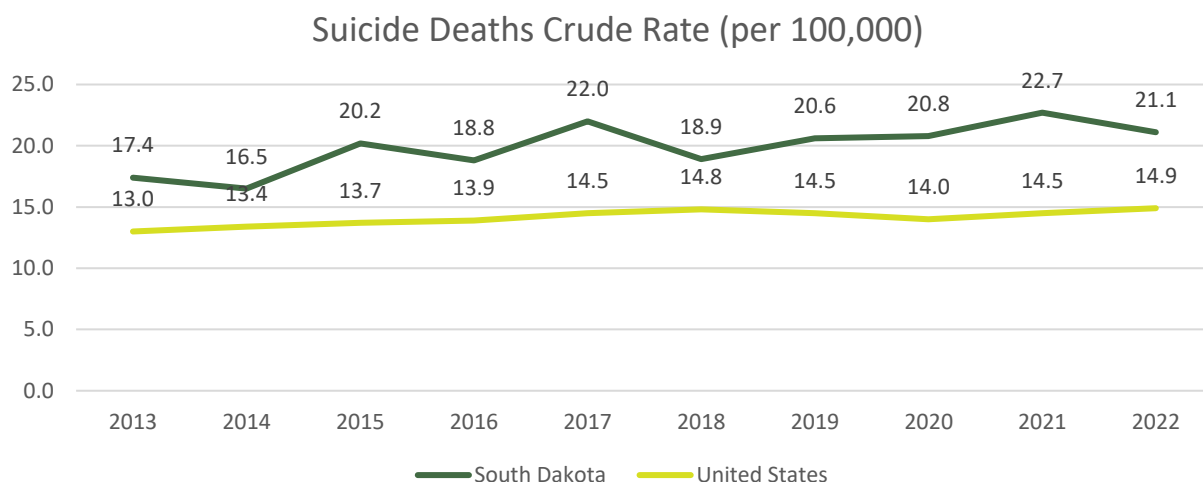
\*DSS Suicide Prevention Training Data

## Conclusions

South Dakota has worked diligently to enhance awareness regarding suicide and suicide risk through trainings, marketing efforts, and awareness campaigns. Efforts should continue to inform the public of the significant impact suicide, suicide loss, and suicide risk has upon the population since suicide is among the leading causes of death in the state, particularly for our younger age groups.

### Key Consideration #1: Prevalence of Suicide in South Dakota

- South Dakota's suicide rate is greater than the national average.
- For 2021, only five other states (Alaska, Colorado, Montana, New Mexico, and Wyoming) had overall suicide rates higher than South Dakota.

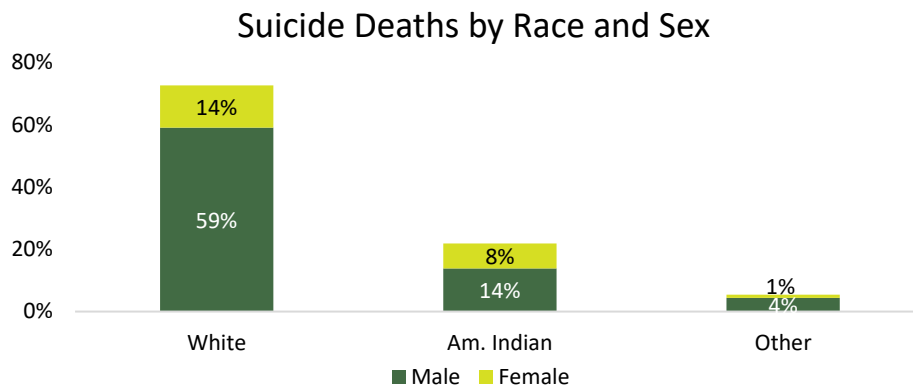


\*CDC Wonder Mortality Rates

Prevention efforts should consider gender differences in methods and means by gender, age and race. Males tend to use more lethal means such as a firearm while females are more likely to attempt suicide by hanging/suffocation or poisoning. Historical data indicates that the white population is more likely to use a firearm while the American Indian population tends to use hanging/suffocation more often.

### Key Consideration #2: Gender Differences

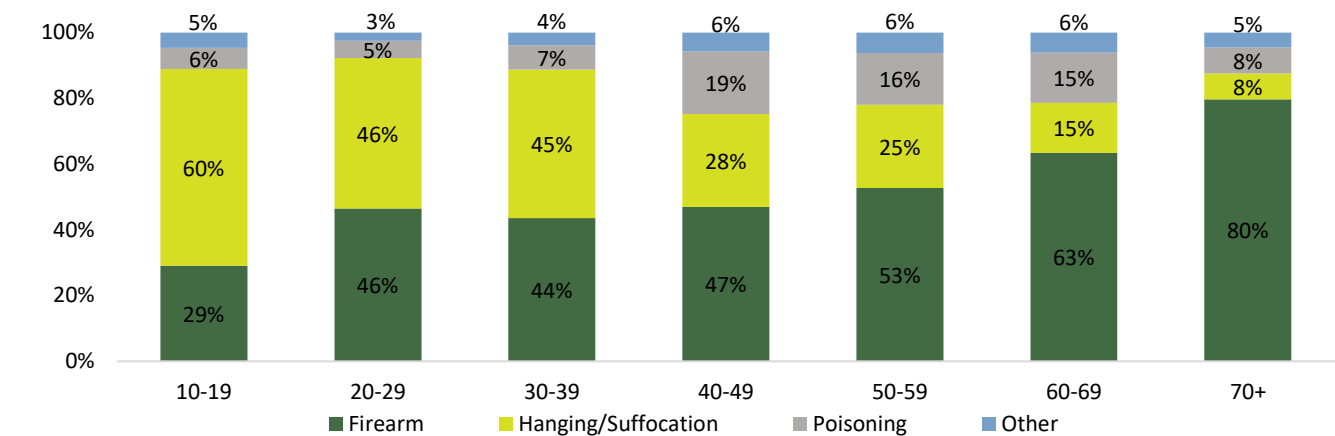
- Males make up a higher (approximately 79%) proportion of suicide deaths than females (approximately 21%) of all deaths.
- Males comprise the highest proportion of suicide deaths, regardless of race.



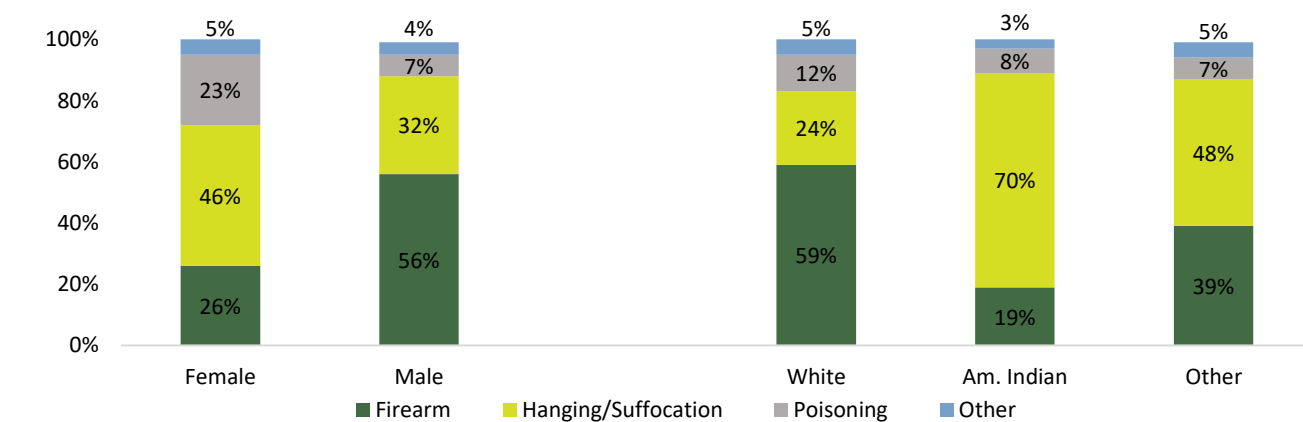
\*South Dakota Department of Health: Suicide Data 2014-2023

### Key Consideration #3: Suicide Method Varies by Age and Gender

- Older individuals are more likely to use a firearm.
- Males are more likely to use a firearm.
- Most common modes for Females are hanging/suffocation and poisoning.
- The White population are more likely to use a firearm while the American Indian population are more likely to use hanging/suffocation as a method.



\*South Dakota Department of Health: Suicide Data 2014-2023

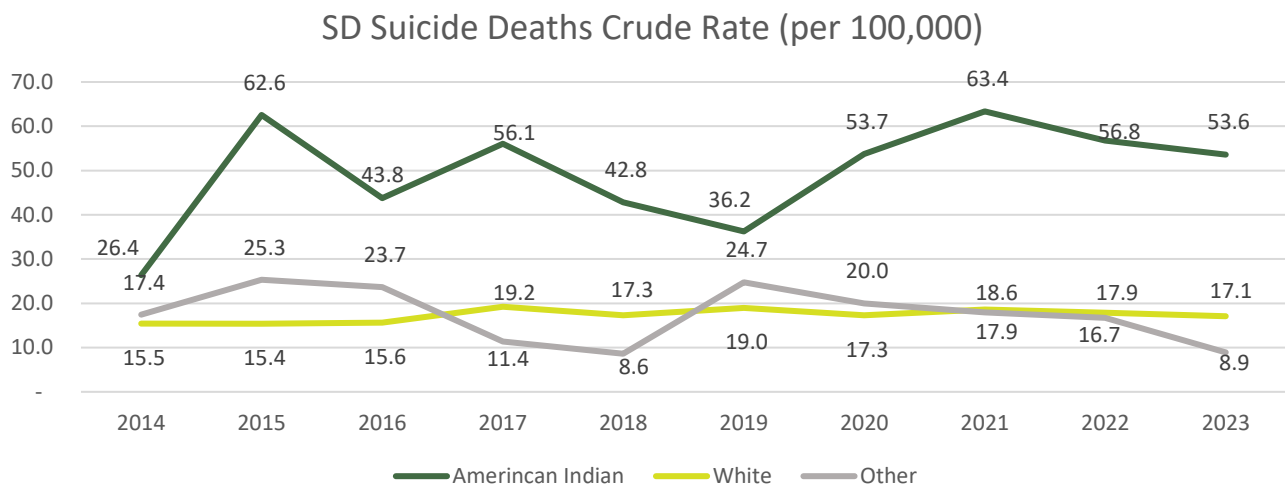


\*South Dakota Department of Health: Suicide Data 2014-2023

The suicide rate for American Indians in South Dakota is nearly three times higher than the suicide rate for the White population. When looking at historical data and analyzing age at time of suicide, a larger proportion of American Indian suicides were among individuals in the younger age groups than the White suicides. At around age 35 to 40 and up, the proportion of suicide deaths in the White population exceeds the proportion of American Indian suicide deaths.

#### Key Consideration #4: Higher Prevalence in American Indian Population

- American Indian's suicide rate is significantly higher when compared to the White Population.

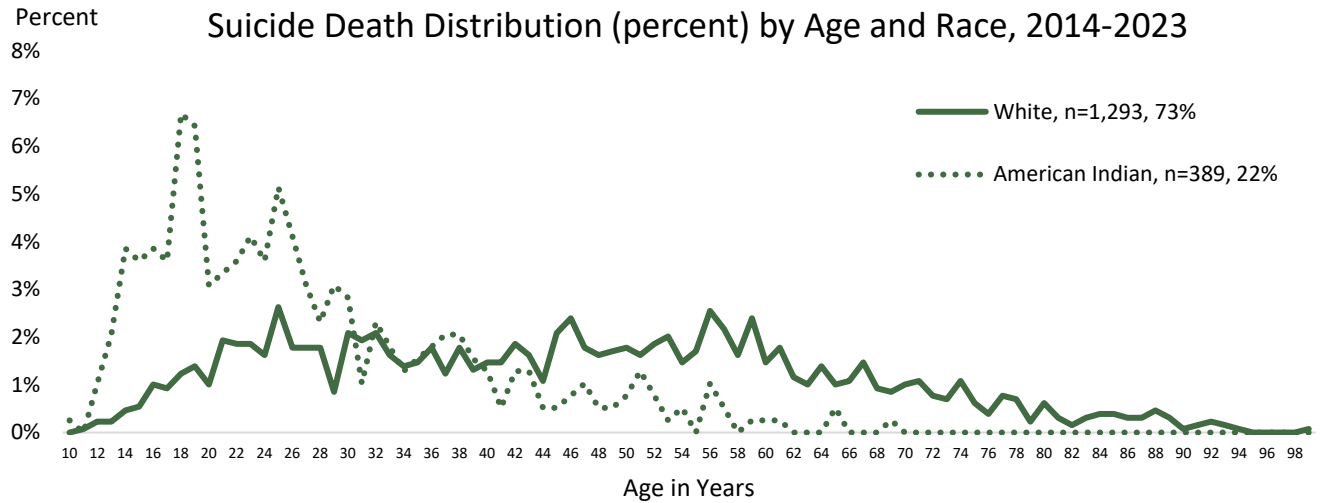


\*CDC Wonder Mortality Rates



### Key Consideration #5: Age and Race are Important

- American Indian's suicide deaths tend to be younger, while suicide in the White population remains relatively steady from age 20 to 59.

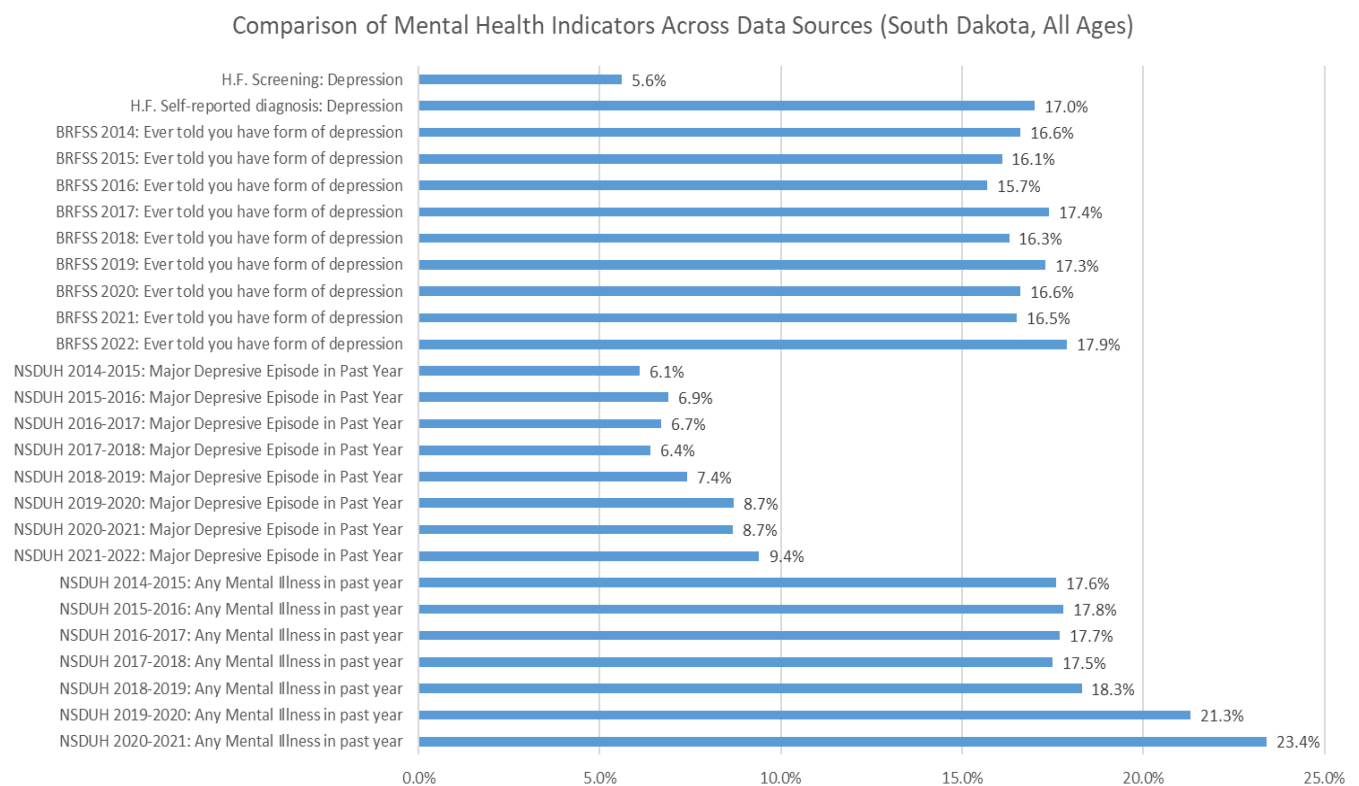


\*South Dakota Department of Health: Suicide Data

Prevalence of mental health symptoms have consistently been shown to be prominent in South Dakota. Based on data from BRFSS and NSDUH, nearly 1 in 5 South Dakota citizens are experiencing depression and mental health symptoms. Recent data suggests an upward trend in mental health symptoms to nearly 1 in 4 individuals.

### Key Consideration #6: Support Mental Health

- Depression and Mental Illness are prominent in our population.
- ~17% have been told they have a form of depression.
- ~8-9% experienced major depressive episode in past year.
- ~18% (and rising) report mental illness in past year.

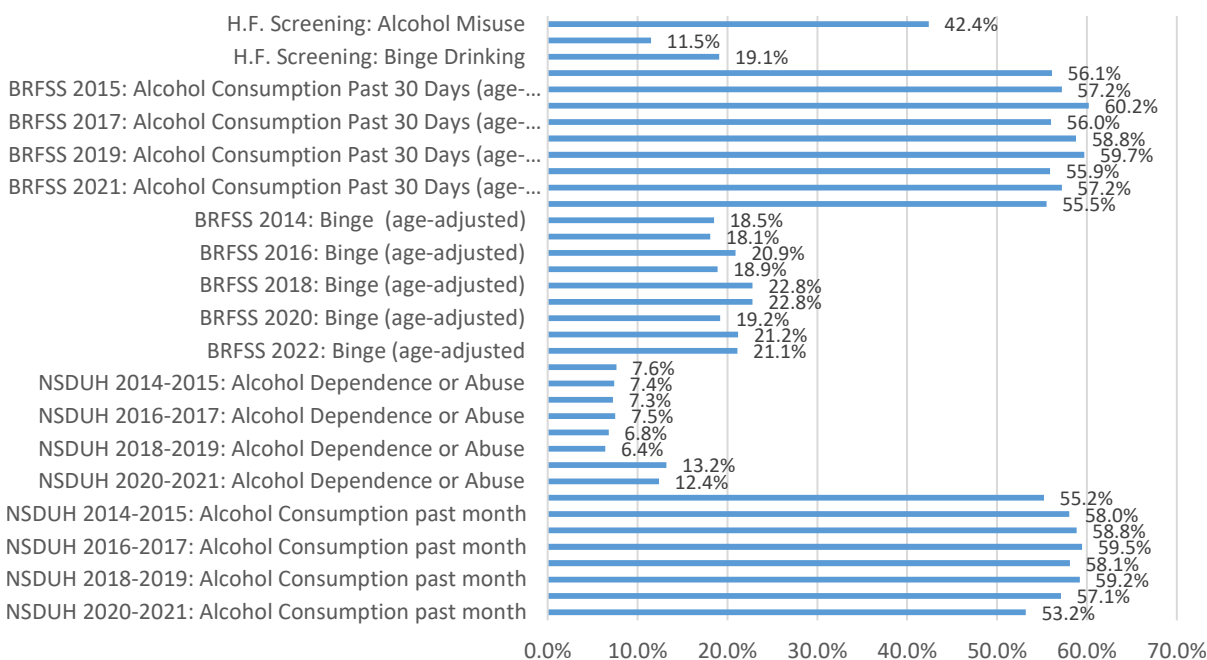


Substance use is a prominent contributing factor to suicides. Data from BRFSS and NSDUH, indicate that nearly 60% of South Dakotan’s drink regularly and 22% binge drink regularly. Binge drinking episodes are periods in which the Blood Alcohol Content can be raised substantially creating periods and opportunities for lapses in judgment and risky behavior. While alcohol is the most prevalent substance used by South Dakotan’s, prevention efforts should also consider effects of marijuana, methamphetamine, opioids, and other drugs.

### Key Consideration #7: Focus on Reducing Substance Use

- Substance use, particularly alcohol, is prominent in our population.
- ~56-58% of the population drink regularly.
- ~21% binge drink regularly, with 46% of 18–25-year-olds binge drinking regularly.
- ~10-12% report drinking patterns consistent with alcohol dependence or abuse.
- Perception of harm in regular use of marijuana is dropping which typically leads to higher usage within a population.

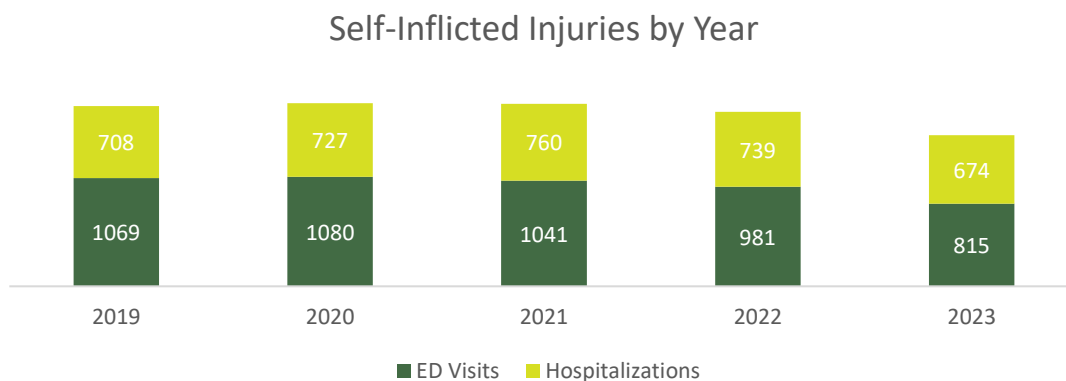
Comparison of Alcohol Indicators Across Data Sources (South Dakota, All Ages)



Individuals who have survived a suicide attempt are at a higher risk for future suicide attempts. During 2019 through 2023 hospital and emergency department data indicate there are over 1,400 cases of self-inflicted injuries. Follow-up support to connect these individuals to ongoing support is a critical strategy to engage a high-risk population in proven preventive services.

**Key Consideration #8: Support for Individuals with Self-Inflicted Injuries**

- Annually, there are over 1,400 cases of self-inflicted injuries admitted to ED and hospitals.
- Provide follow-up support to individuals with self-inflicted injuries or suicide attempts.

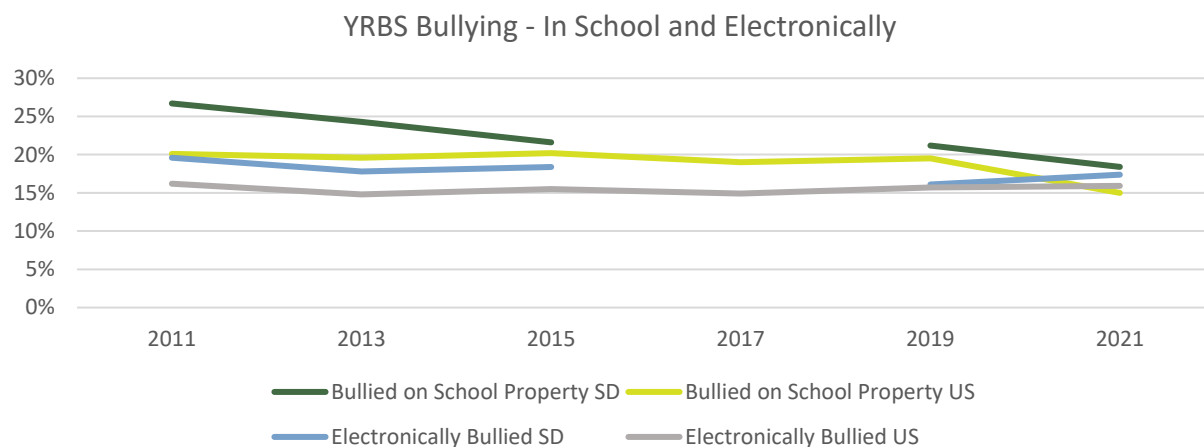


\*South Dakota Department of Health: Suicide Data

Over 18% of South Dakota high school students report experiencing some form of bullying. Statewide data on prevalence of bullying in elementary and middle school students is not available, though it is expected that bullying behavior decreases as students age; thus, suggesting a significant proportion of our elementary school and middle school students have experienced the effects of bullying. Research has repeatedly found individuals who have been bullied to have an increased risk for suicide and suicide attempts. [See Hertz MF, Donato I, Wright J. Bullying and suicide: a public health approach. J Adolescent Health. 2013 Jul;53(1 Suppl): S1-3. doi: 10.1016/j.jadohealth.2013.05.002. PMID: 23790194; PMCID: PMC4721504.]

### Key Consideration #9: Reduce Bullying

- Bullying has been strongly linked to increased risk for suicide and self-harm.
- 18% of high school students report being bullied on school property.
- 17% of high school students report being electronically bullied.
- More than 40% of middle school and elementary students report being bullied.



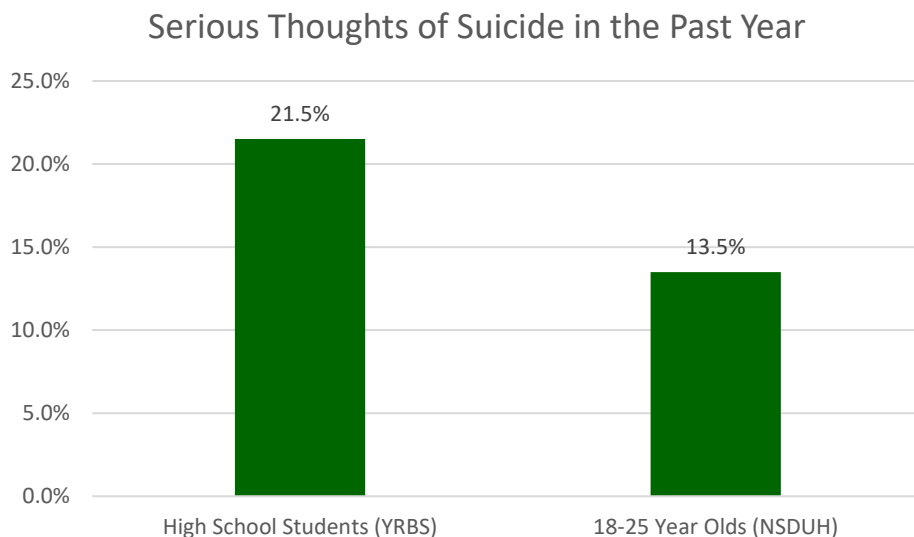
\*YRBS Bullying Data

\*\* Note YRBS data was not available for 2017 for South Dakota

Data from NSDUH and YRBS has pointed to a significant increase in mental health symptoms and suicide ideation within our high school population and individuals age 18 to 25. The primary environment in which our young people can be reached is within the education system. Once individuals exit the education system, it is much more difficult to reach the population with prevention efforts. Data presented earlier on the results of suicide prevention training efforts has shown the effort to be an effective tool and substantial training opportunities remain to expand the number of educators who have received training in suicide prevention.

#### **Key Consideration #10: Enhance/Expand Training for Educators**

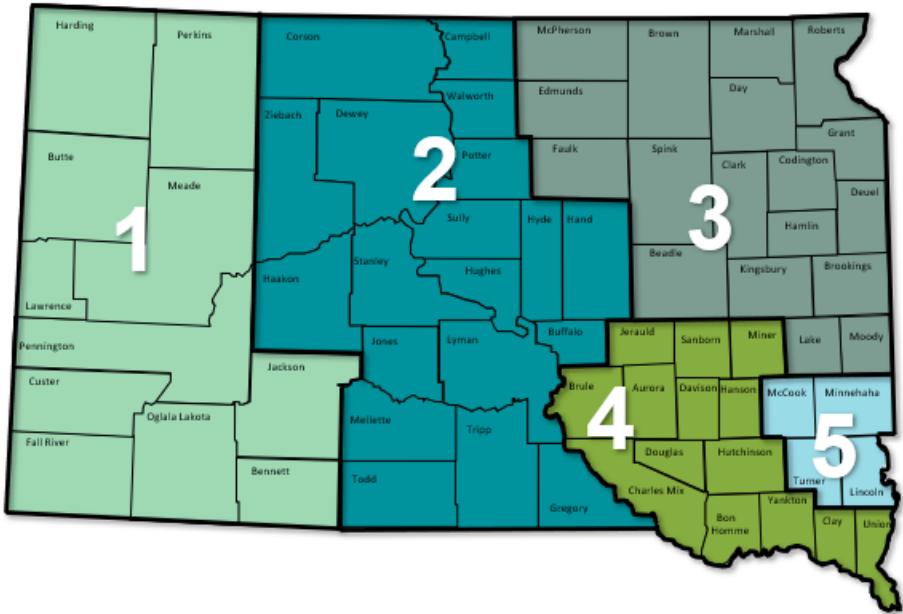
- 21.5% of South Dakota High School Students report having serious thoughts of suicide in the past year.
- 13.5% of 18–25-year-olds report having serious thoughts of suicide in the past year.



\*Youth Risk Behavior Survey 2021 and NSDUH 2021-2022

Overall, the prevalence of suicide, suicide ideation, and other suicide risk factors are complex issues that require consideration of data to inform and guide prevention efforts. For prevention efforts to be successful, the strategies need to be responsive to data trends and community needs in order to target high-risk populations. The data summarized in this report identifies key areas for consideration to aid in focusing prevention efforts.

South Dakota Behavioral Health Regions



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