



South Dakota Violent Death Reporting System

2020 Data Report

South Dakota Department of Health

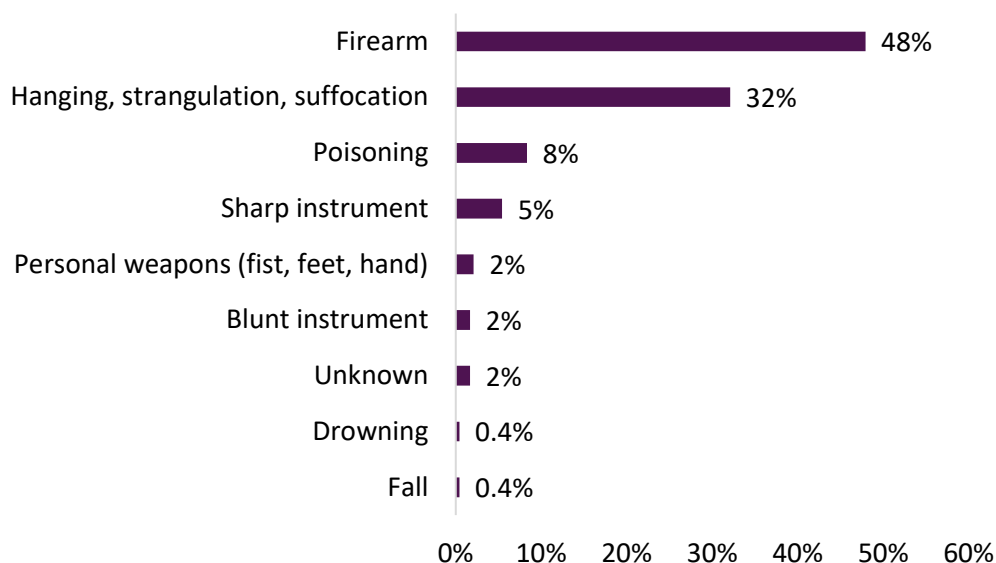
South Dakota Violent Death Reporting System

The South Dakota Violent Death Reporting System (SD-VDRS) is a Centers for Disease Control and Prevention (CDC)-funded, statewide anonymous surveillance system that collects information on suicides, homicides, legal intervention, deaths of undetermined intent, and unintentional firearm-related deaths. SD-VDRS collects information from death certificates, coroner reports and law enforcement reports. The goal of this system is to understand and aid in the prevention of violent deaths. This report summarizes violent deaths of residents where the injury occurred in South Dakota in 2020.

Violent Deaths

In 2020, 240 South Dakota residents were injured and died as a result of violence. The violent death rate was 26.9 per 100,000. Of the 240 violent deaths, 75% were suicide, 21% homicide, 2% undetermined intent, and 2% were unintentional firearm deaths. Firearms were the leading mechanism of death (48%), followed by hanging, strangulation, or suffocation (32%), and poisoning (8%) (Figure 1).

Figure 1: Violent Deaths by Mechanism, 2020

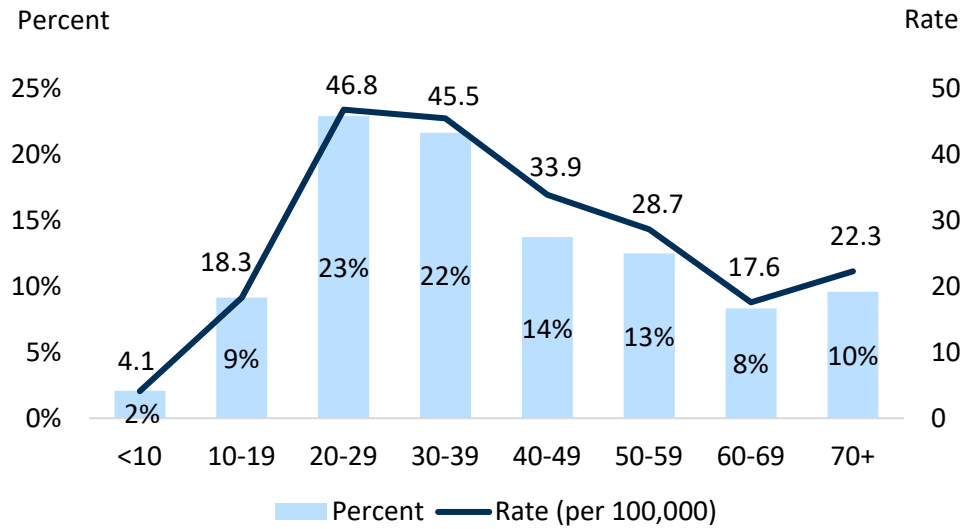


Most violent deaths occur in the decedent's home (56%), followed by emergency department or hospital (20%). Other locations include residence of family or friend or other public places (park, street/highway, parking lot, business, etc.).

Violent Death Demographics

Males made up 80% of violent deaths and were 3.9 times more likely to die from violence as women (42.6 vs 10.9 per 100,000, respectively). The largest proportion of violent deaths were among the White population (62%), followed by the American Indian population (30%). The American Indian violent death rate was 4.6 times higher than the White death rate (91.2 vs 19.7 per 100,000, respectively). South Dakota adults aged 20-39 years (46.8 per 100,000), followed closely by adults aged 30-39 years (45.5 per 100,000), had the highest violent death rates by age group (Figure 2).

Figure 2: Violent Deaths by Age Group, 2020



Suicide Deaths

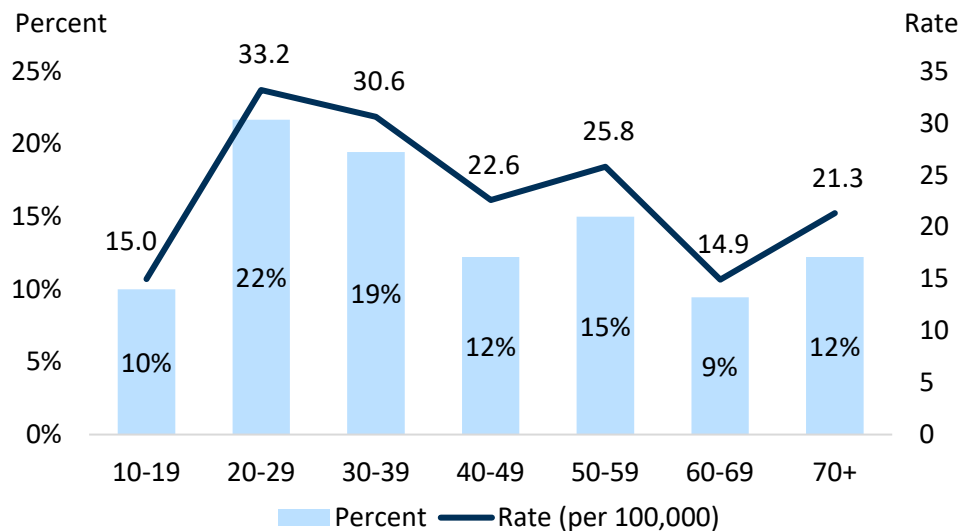
In 2020, there were 180 resident suicide deaths that occurred in South Dakota. Suicide deaths most often occurred in a house or apartment (79%). The most common method of suicide was firearm (47%), followed by hanging, strangulation, or suffocation (41%), and poisoning (10%).

47%
of suicide deaths were
firearm-related

Suicide Demographics

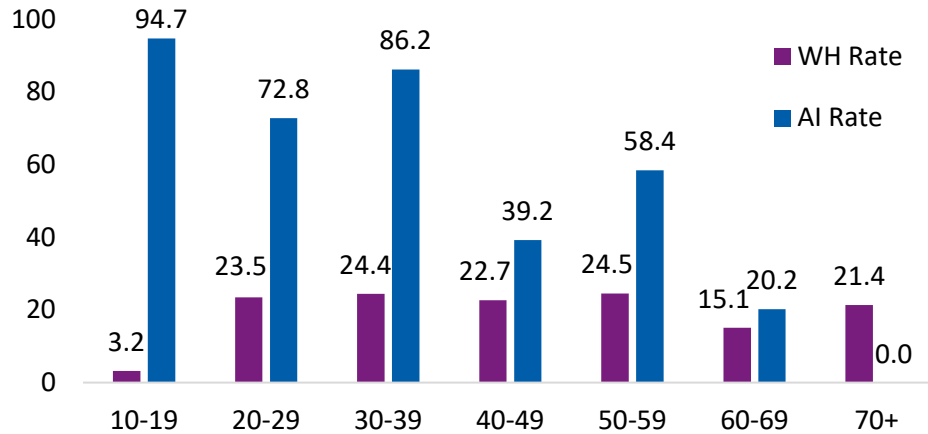
Males made up 80% of suicide deaths and were 4 times more likely than women to die by suicide (32.0 vs 8.1 per 100,000, respectively). The age groups with the highest rate of suicide deaths were adults aged 20-29 years (33.2 per 100,000), followed by adults aged 30-39 years (30.6 per 100,000).

Figure 3: Suicide Deaths by Age Group, 2020



The largest proportion of suicide deaths were among the White population (71%), followed by the American Indian population (23%). The American Indian suicide death rate was 3 times higher than the White death rate (51.2 vs 16.9 per 100,000, respectively). Within the American Indian population, suicide rates were highest among ages 10-19 years. Suicide rates were highest among ages 50-59 years within the White population (Figure 4).

Figure 4: Age-Specific Suicide Rates by Race, 2020

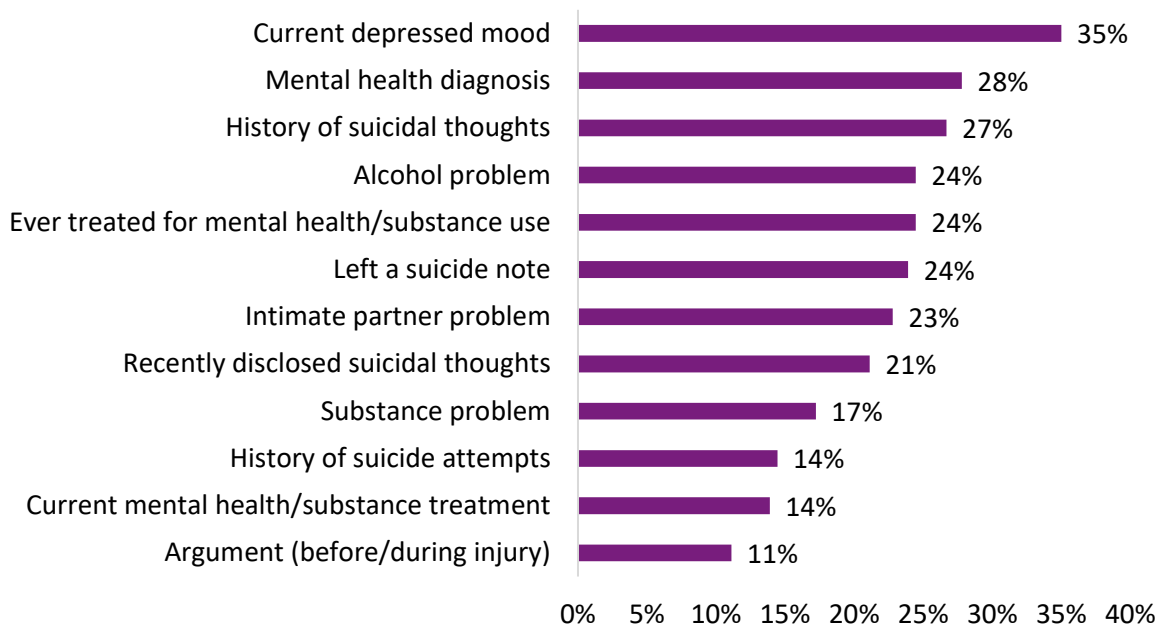


Circumstances

SD-VDRS collects information about circumstances that are reported or perceived in the investigative reports as being related to the violent death. Of the 180 suicide deaths, 79% had a circumstance documented by coroners and/or law enforcement. The most common circumstances documented were current depressed mood (35%), mental health problem (28%), and history of suicidal thoughts (27%) (Figure 5).

35%
of people who died by suicide were reported to have experienced a recent depressed mood

Figure 5: Suicide Circumstances, 2020



There are life stressors that may have contributed to suicide deaths. The most common life stressors documented were physical health problems (9%), job problems (7%), financial problems (6%), and non-suicide death of friend or family (4%).

Of the suicide deaths with an available toxicology report (57%), 64% had a positive toxicology result for one or more substances. The most common substances present at the time of death were alcohol (73%), amphetamines (17%), marijuana (17%), and antidepressants (12%).

Homicide Deaths

In 2020, there were 51 resident homicide deaths that occurred in South Dakota. Homicide deaths most often occurred in a house or apartment (59%) or a street, road, sidewalk, or alley (25%). Firearms (51%) and sharp instruments (22%) were the most common homicide methods.

59%
of homicides
occurred in a
house or apartment

Homicide Demographics

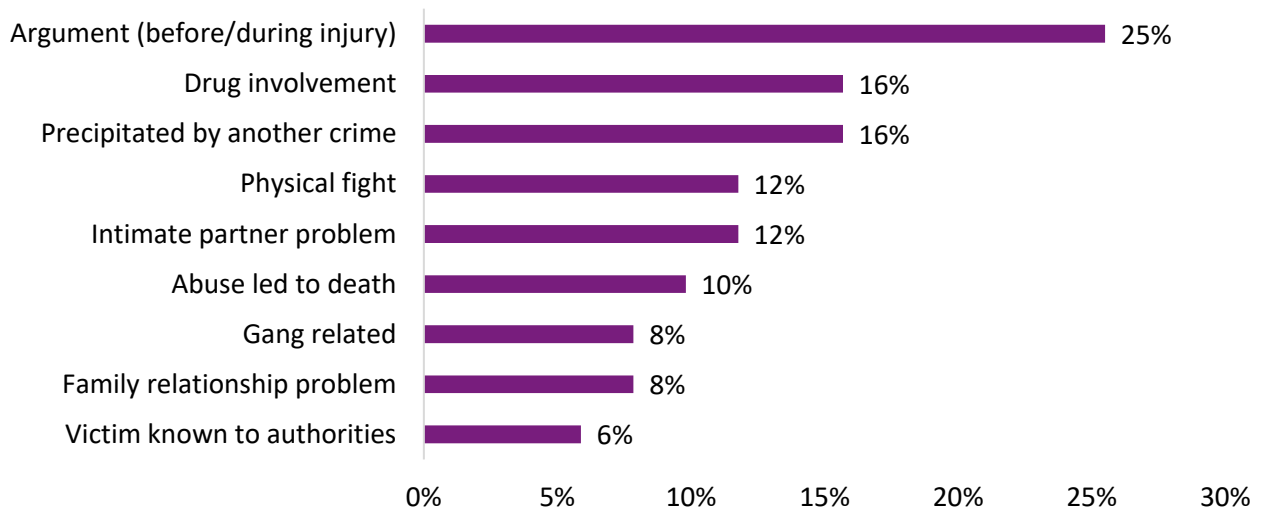
Males made up 78% of homicide deaths and were 3.5 times more likely than women to die by homicide (8.9 vs 2.5 per 100,000, respectively). Homicide rates were highest among the following age groups: 20-29-year-olds (12.8 per 100,000), 30-39-year-olds (11.4 per 100,000), and 40-49-year-olds (9.2 per 100,000).

The largest proportion of homicides were among the American Indian population (57%), followed by the White population (29%). American Indian homicide rates were 18.1 times higher than White homicide rates (36.2 vs 2.0 per 100,000).

Circumstances

Of the 51 homicide deaths, 75% had a circumstance documented by coroners and/or law enforcement. The most common circumstances documented were arguments (25%), drug involvement (16%), and precipitated by another serious crime (16%). Other serious crimes included drug trade, robbery, stalking, assault, and witness intimidation/elimination.

Figure 6: Homicide Circumstances, 2020



Of the homicide deaths with an available toxicology report (76%), 64% had a positive toxicology result for one or more substances. The most common substances present at the time of death were amphetamine (52%) and alcohol (48%).

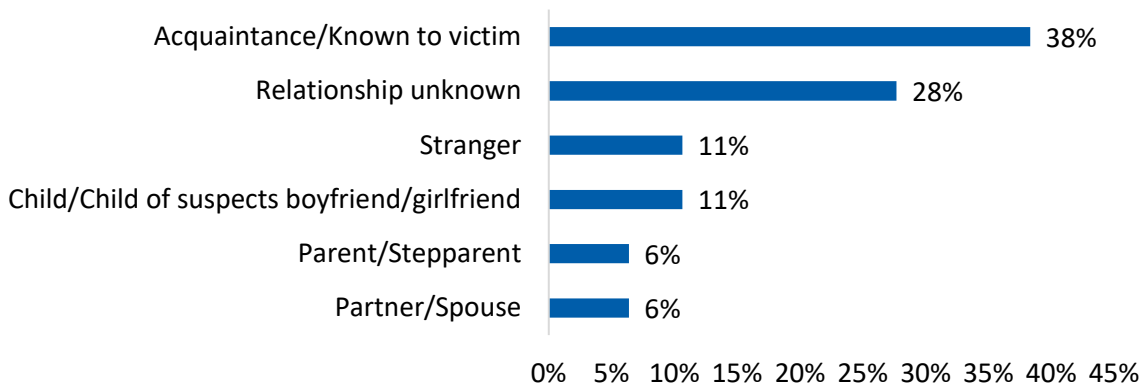
Suspect Information

There was available information on 47 suspects that committed homicide. In 2020, 89% of suspects were male. By race, 32% of suspects were American Indian, 23% Black, and 19% White. The largest proportion of suspects were aged 30-39 years (34%), followed by age 20-29 years (30%).

62%
of homicide
suspects knew
their victim

Most homicide suspects knew their victim (62%), whereas 11% were strangers and 28% were an unknown relationship (Figure 7).

Figure 7: Victim to Suspect Relationship, 2020



Some of the most common suspect circumstances were recent contact with law enforcement (21%), substance use suspected (19%), and alcohol use suspected (15%).

Methods

This report presents statistics on violent deaths during the period January 1, 2020 to December 31, 2020. The 2020 data set used in this report was generated in November 2022 and reflects the data at that point in time. Changes made to the data set could change the data reported in future reports.

Case Identification

Violent deaths are identified according to International Classification of Diseases, Tenth Revision (ICD-10) codes and categorized as suicide, homicide, undetermined, unintentional firearm, legal intervention, or terrorism-related death (Table 1).

Table 1: ICD-10 Codes that Define Violent Death Cases

Manner of Death	ICD-10 Code
Suicide	X60-X84, Y87.0
Homicide	X85-X99, Y00-Y09, Y87.1
Undetermined Intent	Y10-Y34, Y87.2, Y89.9
Unintentional Firearm	W32-W34, Y86
Legal Intervention	Y35.0-Y35.4, Y35.6-Y35.7, Y89.0
Terrorism	U01-U03

For a violent death to meet case criteria, the initial injury must have occurred within South Dakota, regardless of residency or location of death. For the purposes of this report, data in this report is restricted to resident deaths.

Data Collection and Abstraction

Violent death data are captured by data abstractors using multiple data sources that include:

- Death Certificates – obtained from the South Dakota Electronic Vital Records System
- Coroner Reports – obtained from the county coroner
- Law Enforcement Reports – obtained from law enforcement agencies across the state

Data is requested and received electronically, or a hard copy is obtained. Data is then de-identified and manually entered into the National Violent Death Reporting System (NVDRS) by the abstraction team.

Data Limitations

The SD-VDRS strives to collect comprehensive and quality data, but there are data collection challenges. These various challenges might result in incomplete information surrounding deaths. Therefore, this report may underestimate some given circumstances.

Note: persons who died by violence may have had multiple circumstances. It is possible that other circumstances could have been present and not diagnosed, known, or reported.

Acknowledgements

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We deeply appreciate the contributions of coroners and law enforcement professionals throughout South Dakota that have provided information to the SD-VDRS. This work would not be possible without these key data partners.