



SOUTH DAKOTA  
DEPARTMENT OF HEALTH



# Unintentional Falls Among Adults Aged 65 Years and Older

SOUTH DAKOTA

# Unintentional Fall-Related Deaths

Unintentional falls is one of the leading causes of death for South Dakotans aged 65 years and older. From 2013 to 2022, there were 1,640 unintentional fall-related deaths among South Dakotans aged 65 years and older. The number of fall-related deaths increased 55% from 127 deaths in 2013 to 197 deaths in 2022 (Figure 1). In 2021, South Dakota had the third highest age-adjusted rate (140.8 per 100,000) for unintentional fall-related deaths among individuals aged 65 years and older, the national rate was 78.3 per 100,000 (Figure 2).

Figure 1: Fall-Related Deaths and Rates, South Dakota (2013-2022)

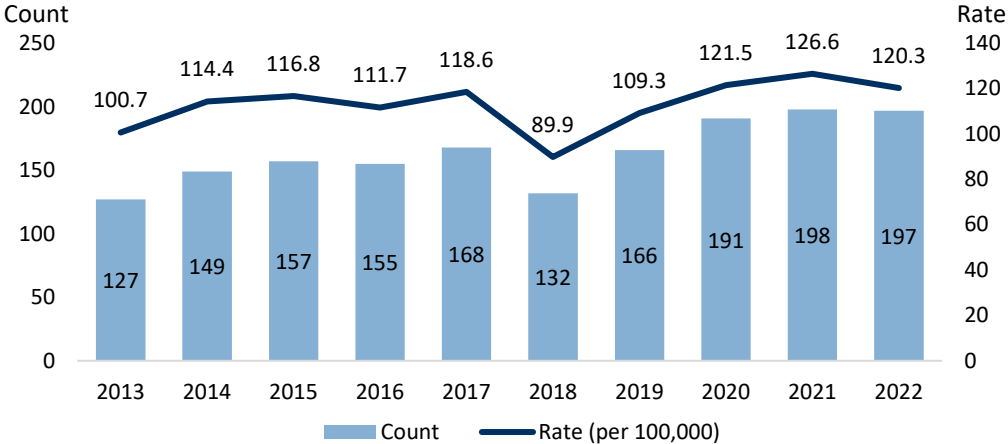
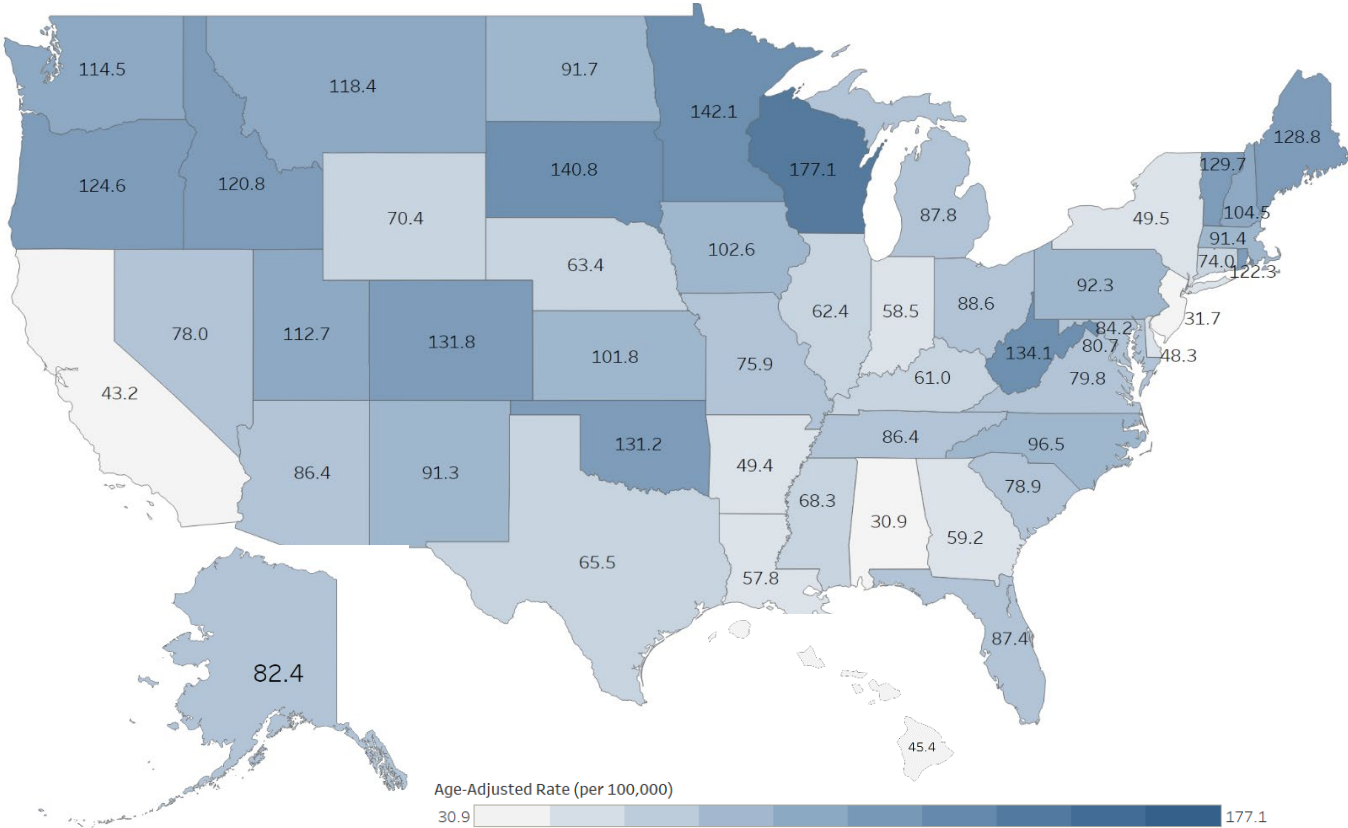


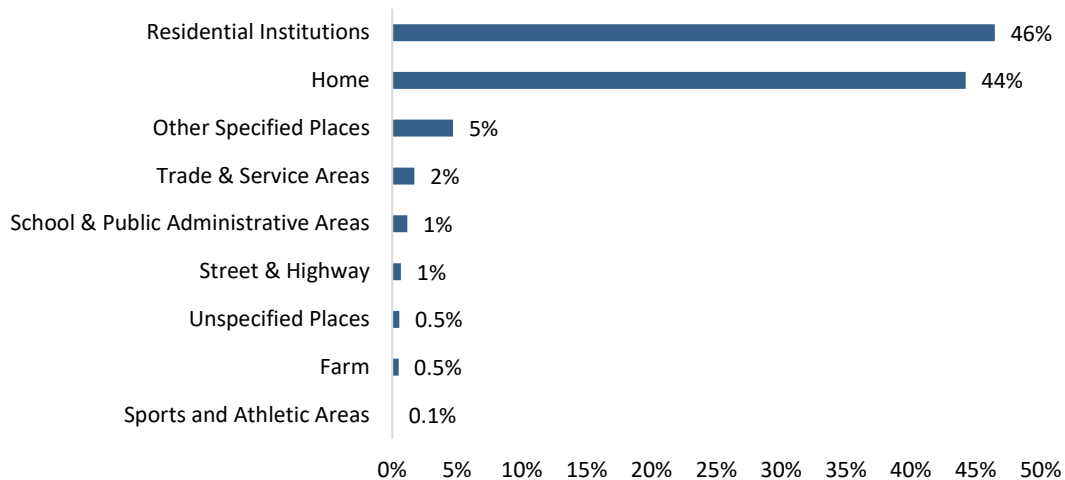
Figure 2: Fall-Related Death Rates by States (2021)



## Place of Injury and Types of Falls

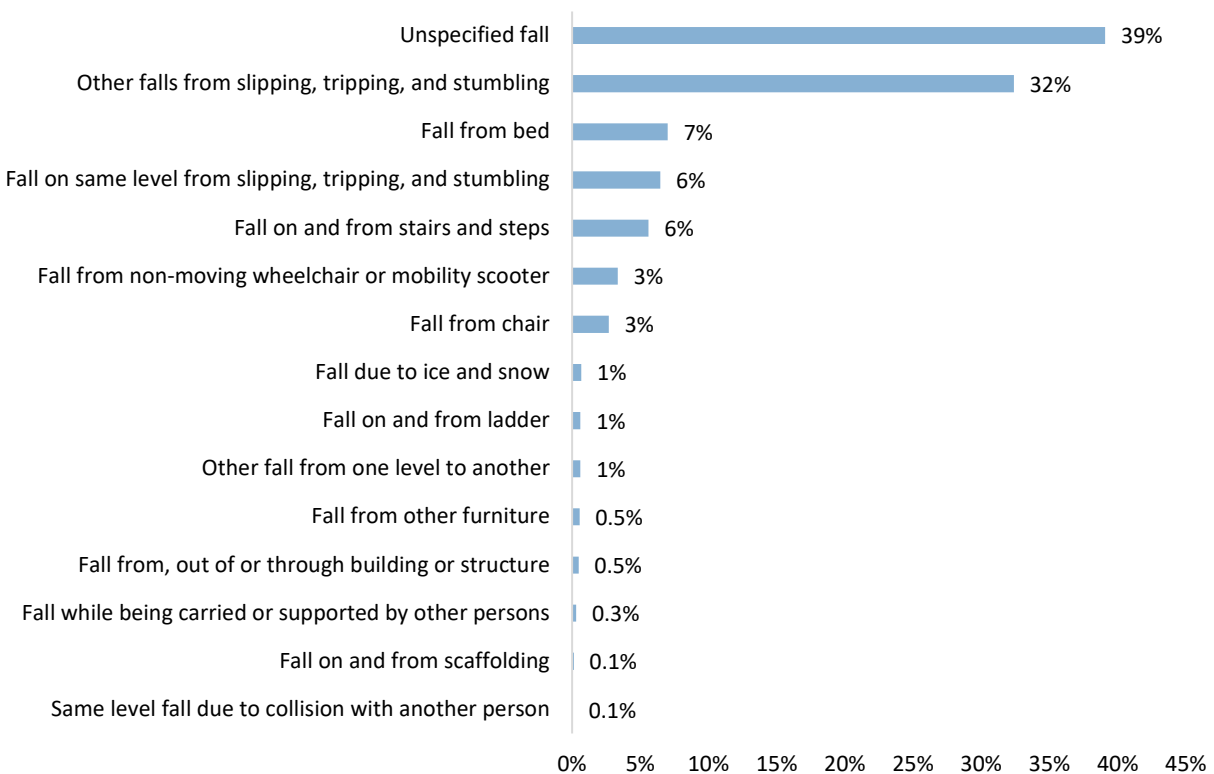
The most common place of injury for falls was residential institutions, accounting for 46% of fall-related deaths. The second most common place of injury was home, accounting for 44% of deaths (Figure 3).

Figure 3: Fall-Related Deaths by Place of Injury (2013-2022)



There are different types of falls that can lead to injury and death. The most common type of fall was listed as unspecified fall, accounting for 39% of deaths. The second most common type of fall was other falls from slipping, tripping, and stumbling, accounting for 32% of deaths (Figure 4).

Figure 4: Fall-Related Deaths by Type of Fall (2013-2022)



## High Risk Populations

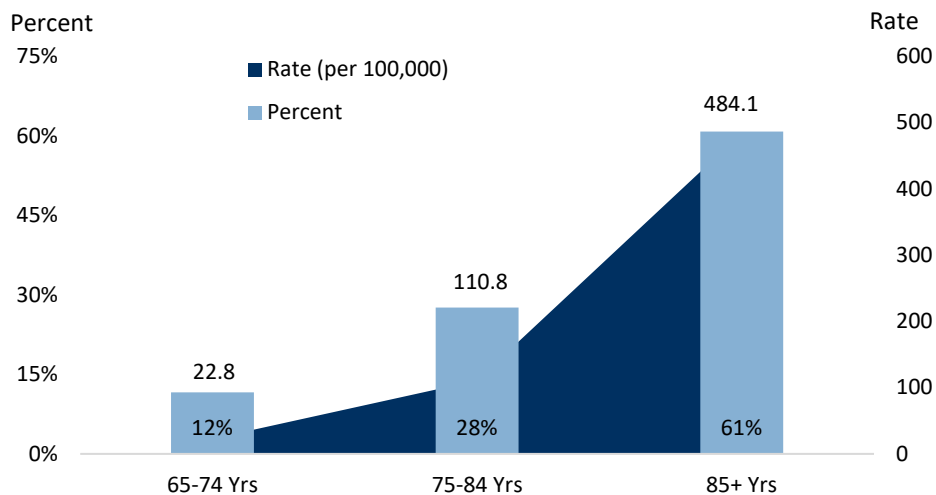
### Sex

Overall, females aged 65 years and older are more likely to die from a fall-related cause of death than males. Females made up 57% of fall-related deaths and had a rate of 120.5 per 100,000, males made up 43% of deaths and had a rate of 105.0 per 100,000 (2013-2022).

### Age

Adults over the age of 65 years are at an increased risk of death due to falls. Individuals aged 85 years and older make up the largest proportion of deaths and have the highest rate among older adults (Figure 5).

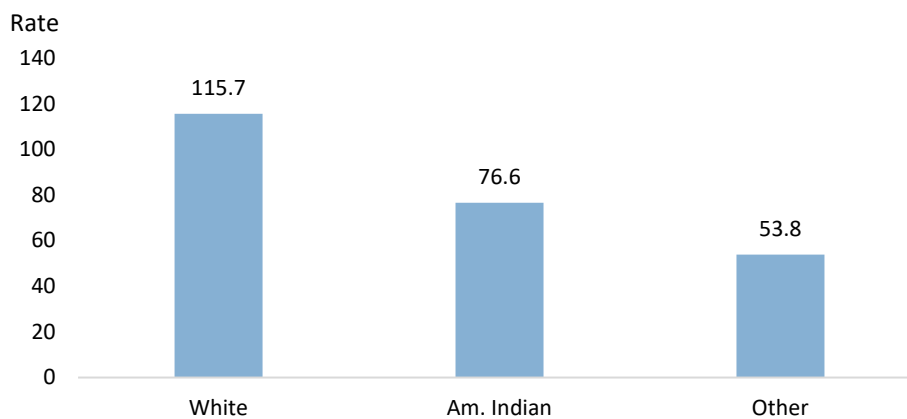
Figure 5: Fall-Related Deaths and Rates by Age Group (2013-2022)



### Race

From 2013-2022, 97% of fall-related deaths were White, 2% were American Indian, and 1% Other (Black, Asian, multiracial, and Hispanic). White residents aged 65 years and older experienced a higher fall-related death rate compared to other populations (Figure 6).

Figure 6: Fall-Related Death Rates (per 100,000) by Race (2013-2022)

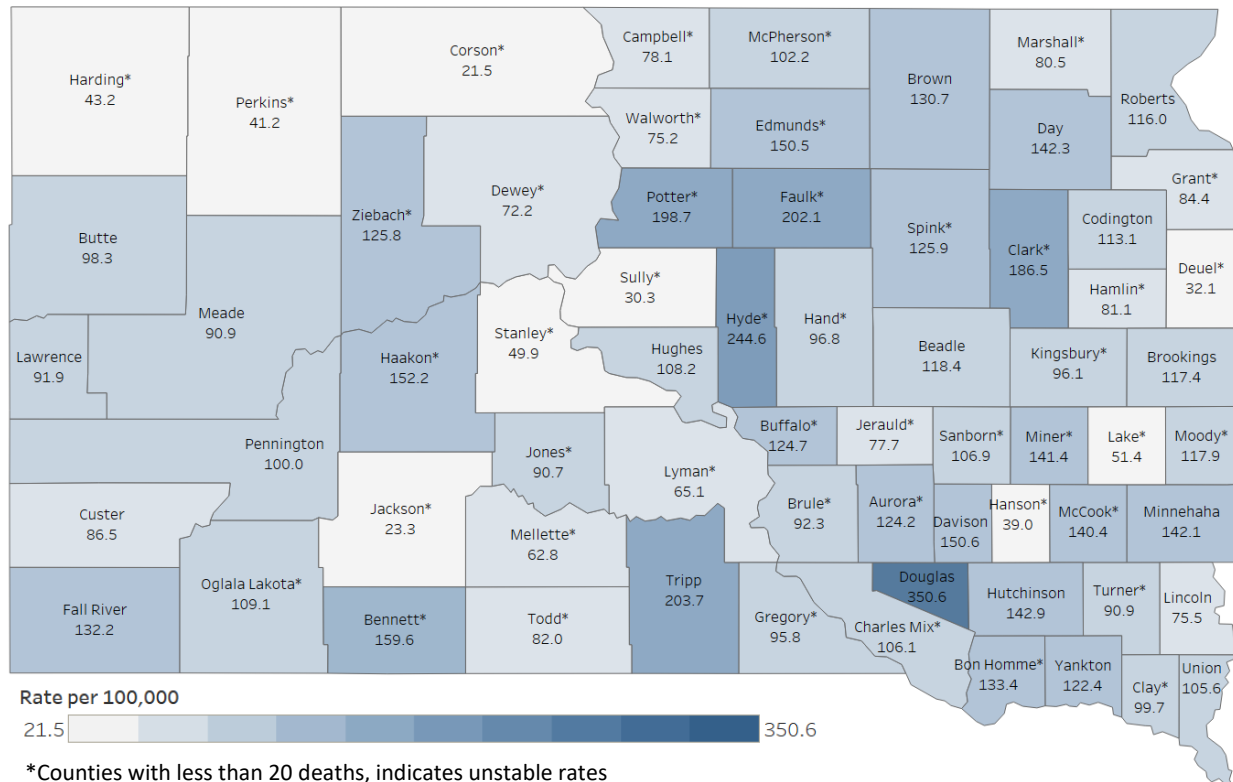


(Other race includes Asian, Black, Pacific Islander, multiracial, and Hispanic)

## Fall-Related Deaths by County

The figure below shows TBI-related death rates by county. Among counties with stable rates for comparison ( $\geq 20$  deaths), the top five counties included Douglas (350.6 per 100,000), Tripp (203.7), Davison (150.6), Hutchinson (142.9), and Day (142.3).

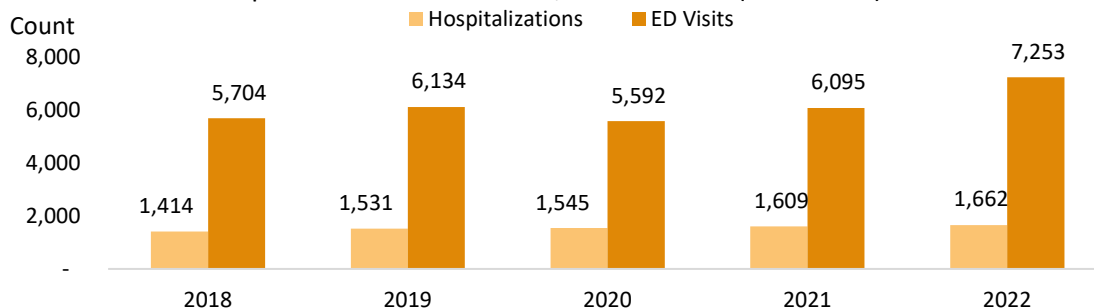
Figure 7: Fall-Related Death Rates by County (2013-2022)



## Nonfatal Unintentional Fall-Related Hospitalizations & Emergency Department (ED) Visits

From 2018 to 2022, there were 7,761 nonfatal unintentional fall-related hospitalizations, and 30,778 emergency department (ED) visits among South Dakotans aged 65 years and older. Fall-related emergency department visits have increased 27% from 2018 to 2022 (Figure 8).

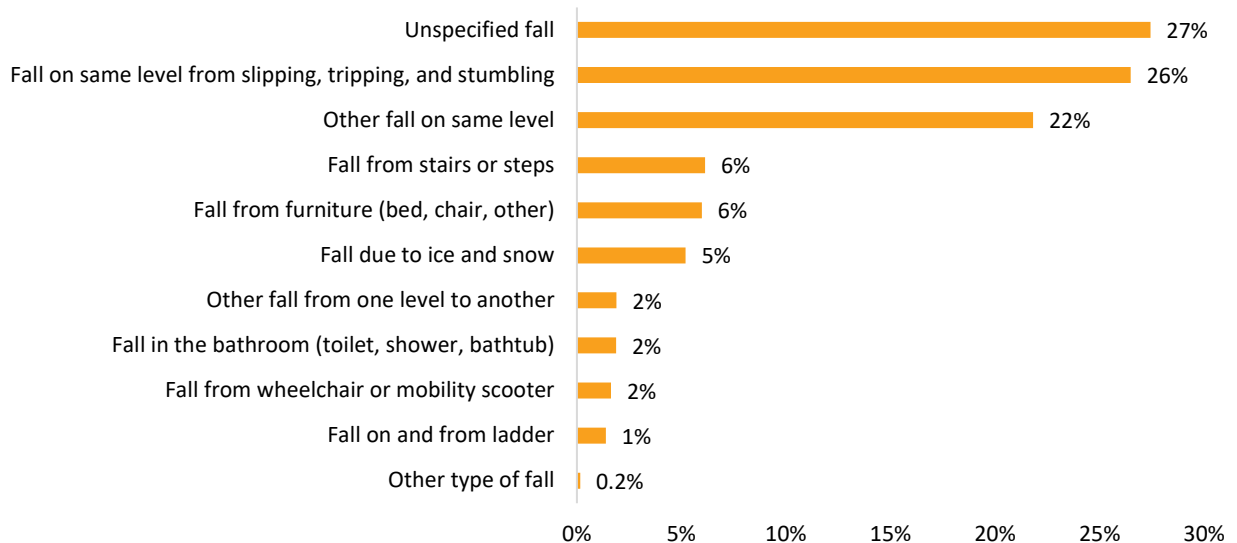
Figure 8: Fall-Related Hospitalizations and ED Visits, South Dakota (2018-2022)



## Types of Falls

Different types of unintentional falls can lead to injury among older adults. Of the 38,539 nonfatal falls requiring ED visit or hospitalization, the top three causes of injuries include unspecified falls, falls on the same level from slipping, tripping, or stumbling, and other falls on the same level (Figure 9).

Figure 9: Fall-Related Injuries by Type of Fall (2018-2022)



## High Risk Populations

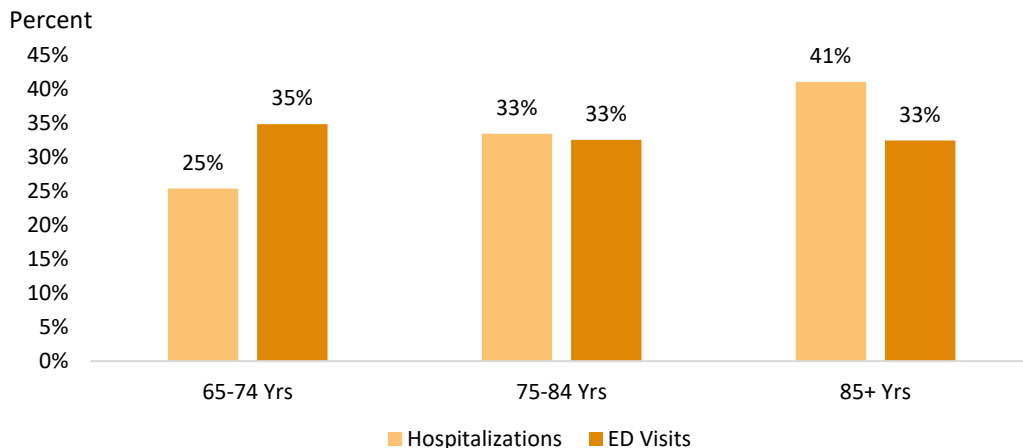
### Sex

Overall, females aged 65 years and older are more likely to receive care for a fall-related injury than males. Females made up 63% of nonfatal visits and had a rate 1.5 times higher than males (3,117.2 vs 2,133.7 per 100,000), 2018-2022.

### Age

South Dakotans over the age of 65 years are at an increased risk for fall-related injuries. Fall-related ED visits are most common among adults aged 65-74 years. The risk for severe injuries resulting in hospitalizations increased with age and are most common among adults aged 85-94 years (Figure 10).

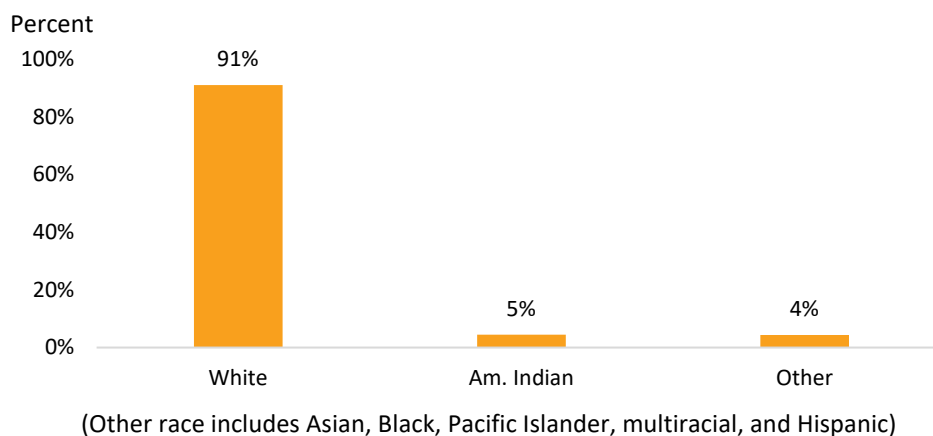
Figure 10: Fall-Related Injuries by Age Group (2018-2022)



## Race

From 2018-2022, the largest proportion of nonfatal fall-related ED visits and hospitalizations were among the White population (Figure 11).

Figure 11: Fall-Related Injuries by Race (2018-2022)



## Data Sources and Methods

Data in this report may differ from other reports due to how the data was analyzed. See below for data sources and analysis methods.

### Data Sources:

Mortality data used in this report comes from the South Dakota Department of Health (DOH) Vital Statistics. Mortality data is representative of South Dakota residents. Data from the Center for Disease Control and Prevention (CDC) Web-based Injury Statistics Query and Reporting System (WISQARS) is utilized for national and state comparisons.

Hospital and Emergency Department (ED) data comes from the South Dakota Association of Healthcare Organizations (SDAHO). This data does not include cases from Indian Health Services hospitals or Veteran Affairs medical centers. Hospital and ED data in this report is representative of South Dakota residents and reflects nonfatal visits by year of discharge.

National data used in this report comes from the Centers for Disease Control and Prevention (CDC) Web-based Injury Statistics Query and Reporting System (WISQARS).

### Methods:

Death records are analyzed for the presence of unintentional fall-related death codes in the cause of death field. Injury fatality ICD-10 codes used in the report include W00-W19.

Hospitalization and ED data was analyzed from the injury discharge subset for non-fatal unintentional fall-related injury codes in any field. Injury ICD-10-CM codes used include the following codes with a 7<sup>th</sup> character of A or missing: V00.11-V00.89 (with 6<sup>th</sup> character=1), W00-W15, W16 (with 6<sup>th</sup> character=2, except 16.4 and 16.9 with 5<sup>th</sup> character=2), W17, W18.1, W18.2, W18.3, and W19. Injury subset and unintentional fall methods can be found here: <https://resources.cste.org/Injury-Surveillance-Methods-Toolkit/Home/GeneralInjuryIndicators>.