

# Mortality

<b>An Overview: 2018</b>	
Total South Dakota Resident Deaths	7,971
Crude Death Rates per 100,000 Population	
South Dakota	903.5
United States (2017)	863.8
Age-Adjusted Death Rates per 100,000 Population	
South Dakota	715.7
United States (2017)	731.9

The remaining categories (Single-race Black, non-Hispanic; Single-race Asian, non-Hispanic; Single-race Pacific Islander, non-Hispanic, Multi-Racial, non-Hispanic, and Hispanic) are included in the totals, but are not shown specifically in any tables.

Table 45, below, displays the deaths, crude death rates, and age-adjusted death rates for the United States and South Dakota residents for the past 17 years.

The total number of South Dakota resident deaths, crude death rate, and age-adjusted death rate all decreased in 2018.

Race is assigned based on standards set forth by the National Center for Health Statistics and the US Census Bureau in order for South Dakota’s race data to be comparable to other areas. All race data in this section are categorized in the following manner:

- Single-race white, non-Hispanic
- Single-race American Indian, non-Hispanic

**Table 45  
Resident Deaths, Crude Death Rates, and Age-Adjusted Death Rates,  
South Dakota and United States, 2002-2018**

Year	United States			South Dakota		
	Number	Crude Rate	Age-Adjusted Rate	Number	Crude Rate	Age-Adjusted Rate
2018	NA*	NA*	NA*	7,971	903.5	715.7
2017	2,813,503	863.8	731.9	7,991	918.9	736.1
2016	2,744,248	849.3	728.8	7,838	905.7	718.6
2015	2,712,630	844.0	733.1	7,724	899.7	714.9
2014	2,626,418	823.7	724.6	7,500	879.1	709.9
2013	2,596,993	821.5	731.9	7,079	837.9	677.4
2012	2,543,279	810.2	732.8	7,283	873.9	706.8
2011	2,515,458	807.3	741.3	7,271	882.3	716.1
2010	2,468,435	799.5	747.0	7,087	870.4	713.4
2009	2,437,163	794.5	749.6	6,913	851.1	688.6
2008	2,471,984	813.0	758.3	7,056	877.0	712.1
2007	2,423,712	803.6	760.2	6,800	853.2	695.1
2006	2,426,264	810.4	776.5	7,038	892.6	732.6
2005	2,448,017	825.9	798.8	7,074	906.8	758.0
2004	2,397,615	816.5	800.8	6,811	879.7	742.3
2003	2,448,288	841.9	832.7	7,109	926.9	787.1
2002	2,443,387	847.3	845.3	6,886	903.5	771.8

Note: \*U.S. 2018 data were not available at publication time.  
Crude death rates are per 100,000 population.  
Age-adjusted rates are computed with the 2000 standard.

Source: National Center of Health Statistics  
South Dakota Department of Health, Office of Health Statistics

Leading Causes of Death

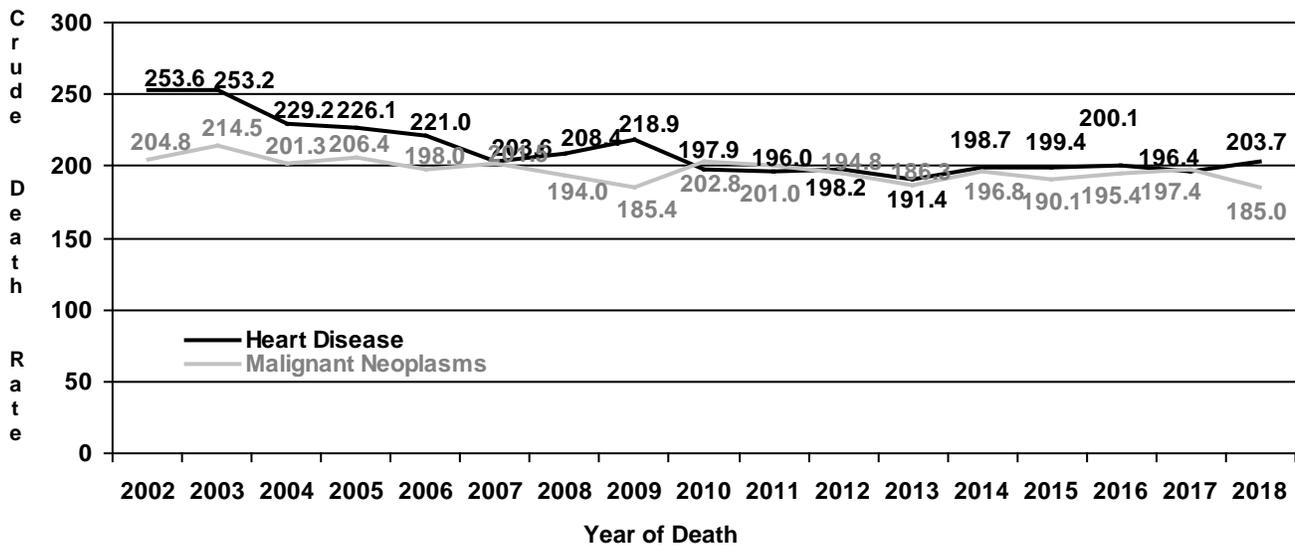
The five leading causes of death in 2018 for South Dakota residents were heart disease, malignant neoplasms (cancer), chronic lower respiratory diseases, accidents, and Alzheimer’s disease.

Heart disease again took over as the leading cause of death in South Dakota accounting for 22.5 percent of South Dakota’s 2018 resident deaths.

Acute myocardial infarction was the leading cause of heart disease deaths during the year, accounting for 33.6 percent of heart disease deaths.

Cancer was the second leading cause of death in 2018 and accounted for 20.5 percent of South Dakota resident deaths, a 4.7 percent decrease from 2017.

**Figure 8**  
**South Dakota Resident Crude Death Rate Due to Malignant Neoplasms and Heart Disease by Year of Death, 2002-2018**



Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.  
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 8, above, compares the crude death rates of South Dakota resident heart disease and cancer since 2002. From 2017 to 2018 there was an increase in the heart disease rate and a decrease in the cancer rate.

Chronic lower respiratory disease accounted for 6.2 percent of South Dakota resident deaths and rose from the fourth leading cause of death in 2017 to the third leading cause of death in 2018.

Accidents were the fourth leading cause of death and accounted for 5.7 percent of 2018 South Dakota resident deaths and a 14.9 percent decrease from 2017. Motor vehicle accidents accounted for 34.5 percent of accidental deaths.

Alzheimer’s disease was the fifth leading cause of death accounting for 5.5 percent of all South Dakota resident deaths in 2018.

Table 46, below, displays the breakdown of accidental deaths, which were the fourth leading cause of deaths among South Dakotans. In 2018, 452 or 5.7 percent of deaths were due to accidents.

The highest type of motor vehicle death in 2018 was car occupant with 74 deaths. The highest death in the other causes of accidental death in 2018 was falls with 149 deaths.

**Table 46**  
**South Dakota Resident Leading Causes of Death Due to Accidents, 2014-2018**

	Total	Year of Death				
		2014	2015	2016	2017	2018
<b>Total Deaths</b>	<b>2,420</b>	<b>461</b>	<b>467</b>	<b>503</b>	<b>537</b>	<b>452</b>
<b>Motor Vehicle Accidents</b>	<b>751</b>	<b>151</b>	<b>143</b>	<b>135</b>	<b>166</b>	<b>156</b>
Car Occupant (V40-V49)	330	74	70	48	64	74
Occupant of Pick-Up Truck or Van (V50-V59)	128	31	25	28	25	19
Pedestrian (V01-V09)	74	12	10	15	16	21
Motorcycle Rider (V20-V29)	61	9	11	14	13	14
Occupant of Special All-Terrain Vehicle (V86)	36	5	9	9	5	8
Occupant of Heavy Transport Vehicle (V60-V69)	14	2	0	3	6	3
All Other Motor Vehicle Accidents	108	18	18	18	37	17
<b>Other Causes of Accidental Death</b>	<b>1,669</b>	<b>310</b>	<b>324</b>	<b>368</b>	<b>371</b>	<b>296</b>
Falls (W00-W19)	881	170	181	185	196	149
Accidental Poisoning (X40-X49)	309	58	57	67	70	57
Accidental Threats to Breathing (excl. drowning) (W75-W84)	120	24	20	27	28	21
Exposure to Excessive Natural Cold (X31)	53	8	5	14	13	13
Exposure to Smoke, Fire, and Flames (X00-X09)	51	5	9	10	19	8
Accidental Drowning and Submersion (W65-W74, V90, V92)	50	8	13	10	8	11
Accidental Discharge of Firearms (W32-W34)	21	2	5	5	2	7
Contact with Agricultural Machinery (W30)	14	1	3	2	3	5
Air Transport Accidents (V95.0-V95.3, V95.8-V95.9, & V96-V97)	13	5	1	3	1	3
Struck by Thrown, Projected, or Falling Object (W20)	12	5	2	2	1	2
Explosion (W35-W40)	9	1	0	7	0	1
Exposure to Excessive Natural Heat (X30)	5	1	1	1	2	0
All Other Causes of Accidents	131	22	27	35	28	19

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

Table 47, on the next page, lists South Dakota resident leading causes of death for the last five years. Heart disease and cancer were the leading causes of death in 2018 and for each of the five prior years.

In 2018, causes six through ten were cerebrovascular disease, diabetes mellitus, influenza and pneumonia, chronic liver disease and cirrhosis, and suicide.

Chronic lower respiratory disease moved up to the third leading cause of death followed by accidents, and Alzheimer's disease for the top 5 causes in 2018.

**Table 47**  
**South Dakota Resident Leading Causes of Death, 2014-2018**

Cause of Death	Total			2014			2015			2016			2017			2018		
	Rank	Deaths	%	Rank	Deaths	%	Rank	Deaths	%	Rank	Deaths	%	Rank	Deaths	%	Rank	Deaths	%
South Dakota (All Deaths)		39,024	100		7,500	100		7,724	100		7,838	100		7,991	100		7,971	100
Heart Disease (I00-I09, I11, I13, I20-I51)	1	8,644	22.2	1	1,695	22.6	1	1,712	22.1	1	1,732	22.1	2	1,708	21.4	1	1,797	22.5
Malignant Neoplasms (Cancer) (C00-C97)	2	8,351	21.4	2	1,679	22.4	2	1,632	21.1	2	1,691	21.6	1	1,717	21.5	2	1,632	20.5
Accidents (V01-X59, Y85-Y86)	3	2,420	6.2	3	461	6.1	4	467	6.0	3	503	6.4	3	537	6.7	4	452	5.7
Chronic Lower Respiratory Diseases (J40-J47)	4	2,370	6.1	4	440	5.9	3	500	6.5	5	427	5.4	4	505	6.3	3	498	6.2
Alzheimer's Disease (G30)	5	2,184	5.6	6	433	5.8	5	421	5.5	4	449	5.7	5	444	5.6	5	437	5.5
Cerebrovascular Diseases (I60-I69)	6	2,037	5.2	5	439	5.9	6	381	4.9	6	420	5.4	6	410	5.1	6	387	4.9
Diabetes Mellitus (E10-E14)	7	1,272	3.3	7	223	3.0	7	282	3.7	7	253	3.2	7	262	3.3	7	252	3.2
Influenza and Pneumonia (J09-J18)	8	1,051	2.7	8	180	2.4	8	213	2.8	8	195	2.5	8	217	2.7	8	246	3.1
Intentional Self-Harm (Suicide) (*U03, X60-X84, Y87.0)	9	835	2.1	9	141	1.9	9	173	2.2	9	161	2.1	9	192	2.4	10	168	2.1
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	10	760	1.9	10	128	1.7	10	137	1.8	10	158	2.0	10	152	1.9	9	185	2.3
All Other Causes	-	9,100	23.3	-	1,681	22.4	-	1,806	23.4	-	1,849	23.6	-	1,847	23.1	-	1,917	24.0

Note: Letter/number combinations following cause of death are ICD-10 codes.

Due to rounding disease-specific percentages may not sum to 100.

The asterisks (\*) preceding the cause-of-death codes indicate that they are not part of the International Classification of Diseases, Tenth Revision.

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

**Table 48**  
**South Dakota Resident Leading Causes of Death by Race, 2018**

Cause of Death	All Races					White, Non-Hispanic					American Indian, Non-Hispanic				
	Rank	Deaths	%	Crude Rate	Age-Adjusted Rate	Rank	Deaths	%	Crude Rate	Age-Adjusted Rate	Rank	Deaths	%	Crude Rate	Age-Adjusted Rate
<b>South Dakota (All Deaths)</b>		<b>7,971</b>	<b>100</b>	<b>903.5</b>	<b>715.7</b>		<b>7,054</b>	<b>100</b>	<b>981.9</b>	<b>671.0</b>		<b>732</b>	<b>100</b>	<b>1,001.6</b>	<b>1,548.8</b>
Heart Disease (I00-I09, I11, I13, I20-I51)	1	1,797	22.5	203.7	156.2	1	1,635	23.2	227.6	149.8	1	123	16.8	168.3	290.9
Malignant Neoplasms (Cancer) (C00-C97)	2	1,632	20.5	185.0	145.2	2	1,492	21.2	207.7	142.7	2	105	14.3	143.7	238.2
Chronic Lower Respiratory Diseases (J40-J47)	3	498	6.2	56.4	43.7	3	466	6.6	64.9	43.3	7	25	3.4	34.2	73.3
Accidents (V01-X59, Y85-Y86)	4	452	5.7	51.2	46.5	6	349	4.9	48.6	39.8	3	84	11.5	114.9	129.5
Alzheimer's Disease (G30)	5	437	5.5	49.5	36.3	4	432	6.1	60.1	37.5	*	-	-	-	-
Cerebrovascular Diseases (I60-I69)	6	387	4.9	43.9	33.3	5	364	5.2	50.7	33.3	10	14	1.9	19.2	38.6
Diabetes Mellitus (E10-E14)	7	252	3.2	28.6	23.3	8	174	2.5	24.2	16.4	5	70	9.6	95.8	159.2
Influenza and Pneumonia (J09-J18)	8	246	3.1	27.9	20.8	7	224	3.2	31.2	19.8	9	16	2.2	21.9	46.6
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	9	185	2.3	21.0	19.7	*	-	-	-	-	4	79	10.8	108.1	139.5
Intentional Self-Harm (Suicide) (*U03, X60-X84, Y87.0)	10	168	2.1	19.0	19.4	9	128	1.8	17.8	17.8	6	34	4.6	46.5	41.1
Unspecified Dementia (F03)	*	-	-	-	-	10	125	1.8	17.4	10.4	*	-	-	-	-
Septicemia (A40-A41)	*	-	-	-	-	*	-	-	-	-	8	20	2.7	27.4	47.4
Assault (homicide) (X85-Y09, Y87.1)	*	-	-	-	-	*	-	-	-	-	10	14	1.9	19.2	19.5
All Other Causes	-	1,917	24.0	217.3	-	*	1,665	23.6	231.8	-	-	148	20.2	202.5	-

Note: Letter / number combinations following cause of death are ICD-10 codes.

Due to rounding, disease-specific percentages may not sum to 100.

\* This cause was not one of the 10 leading causes of death for this race group.

The asterisks (\*) preceding the cause-of-death codes indicate that they are not part of the International Classification of Diseases, Tenth Revision.

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

## Race

Table 48, on the previous page, presents South Dakota resident leading causes of death by race as well as crude death rates and age-adjusted death rates.

In 2018, patterns for the 10 leading causes of death varied by race. Eight of the 10 leading causes were the same for white, non-Hispanics and American Indian, non-Hispanics, but they differed by rank. For example, cerebrovascular disease was the fifth leading cause of death at 5.2 percent for the white, non-Hispanic population, but was tied for the tenth leading cause of death for the American Indian, non-Hispanic population at 1.9 percent.

Accidents ranked third for American Indian, non-Hispanics in 2018 while chronic liver disease and cirrhosis ranked fourth with diabetes fifth.

Alzheimer's disease and unspecified dementia were in the 10 leading causes of death for the white, non-Hispanic population, but not the American Indian, non-Hispanic population. Among the 10 leading causes of death for the American Indian, non-Hispanic population, but not for the white, non-Hispanic population, were chronic liver disease and cirrhosis, septicemia, and homicide.

## Gender

Table 49, on the following page, presents South Dakota resident leading causes of death by gender as well as crude death rates and age-adjusted death rates.

In 2018, patterns for the 10 leading causes of death in South Dakota also varied by gender. Nine of the 10 leading causes were the same for South Dakota's men and women, but they differed in rank. Suicide was among the 10 leading causes of death for South Dakota's men, but not for women.

Likewise, unspecified dementia was among the 10 leading causes of death for women, but not for men. Men were also more likely to die in accidents than women, while women were more likely to die from Alzheimer's disease than men.

**Table 49  
South Dakota Resident Leading Causes of Death by Gender, 2018**

Cause of Death	Total					Male					Female				
	Rank	Deaths	%	Crude Rate	Age-Adjusted Rate	Rank	Deaths	%	Crude Rate	Age-Adjusted Rate	Rank	Deaths	%	Crude Rate	Age-Adjusted Rate
<b>South Dakota (All Deaths)</b>		<b>7,971</b>	<b>100</b>	<b>903.5</b>	<b>715.7</b>		<b>4,165</b>	<b>100</b>	<b>934.8</b>	<b>878.3</b>		<b>3,806</b>	<b>100</b>	<b>871.5</b>	<b>606.5</b>
Heart Disease (I00-I09, I11, I13, I20-I51)	1	1,797	22.5	203.7	156.2	1	988	23.7	221.8	206.2	1	809	21.3	185.3	120.6
Malignant Neoplasms (Cancer) (C00-C97)	2	1,632	20.5	185.0	145.2	2	891	21.4	200.0	179.8	2	741	19.5	169.7	126.3
Chronic Lower Respiratory Diseases (J40-J47)	3	498	6.2	56.4	43.7	4	264	6.3	59.3	55.2	4	234	6.1	53.6	37.4
Accidents (V01-X59, Y85-Y86)	4	452	5.7	51.2	46.5	3	289	6.9	64.9	63.9	6	163	4.3	37.3	30.6
Alzheimer's Disease (G30)	5	437	5.5	49.5	36.3	7	133	3.2	29.9	30.0	3	304	8.1	69.6	41.6
Cerebrovascular Diseases (I60-I69)	6	387	4.9	43.9	33.3	5	175	4.2	39.3	36.9	5	212	5.6	48.5	30.9
Diabetes Mellitus (E10-E14)	7	252	3.2	28.6	23.3	6	138	3.3	31.0	29.1	8	114	3.0	26.1	18.7
Influenza and Pneumonia (J09-J18)	8	246	3.1	27.9	20.8	10	106	2.5	23.8	23.2	7	140	3.7	32.1	20.0
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	9	185	2.3	21.0	19.7	9	110	2.6	24.7	22.7	10	75	2.0	17.2	17.1
Intentional Self-Harm (Suicide) (*U03, X60-X84, Y87.0)	10	168	2.1	19.0	19.4	8	124	3.0	27.8	28.6	*	-	-	-	-
Unspecified Dementia (F03)	*	-	-	-	-	*	-	-	-	-	9	87	2.3	19.9	11.0
All Other Causes	-	1,917	24.0	217.3	-	-	947	22.7	212.6	-	-	927	24.4	212.3	-

Note: Letter/number combinations following cause of death are ICD-10 codes. Due to rounding, disease-specific percentages may not sum to 100.

\*This cause was not one of the 10 leading causes of death for this gender.

The asterisks (\*) preceding the cause of death codes indicate they are not part of the International Classification of Diseases, Tenth Revision

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

**Table 50**  
**South Dakota Resident Five Leading Causes of Death by Age Group, 2014-2018**

Rank	All Ages	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90 & over
1	Heart Disease 8,644	Accidents 65	Accidents 125	Accidents 277	Accidents 231	Malignant Neoplasms (Cancer) 242	Malignant Neoplasms (Cancer) 940	Malignant Neoplasms (Cancer) 1,884	Malignant Neoplasms (Cancer) 2,281	Heart Disease 2,520	Heart Disease 2,368
2	Malignant Neoplasms (Cancer) 8,351	Malignant Neoplasms (Cancer) 13	Intentional Self-harm (Suicide) 107	Intentional Self-harm (Suicide) 185	Intentional Self-Harm (Suicide) 140	Heart Disease 216	Heart Disease 649	Heart Disease 1,237	Heart Disease 1,549	Malignant Neoplasms (Cancer) 2,131	Alzheimer's Disease 999
3	Accidents 2,420	Assault (Homicide) 11	Assault (Homicide) 19	Assault (Homicide) 39	Chronic Liver Disease and Cirrhosis 91	Accidents 213	Accidents 285	Chronic Lower Respiratory Disease 351	Chronic Lower Respiratory Disease 671	Alzheimer's Disease 936	Malignant Neoplasms (Cancer) 755
4	Chronic Lower Respiratory Diseases 2,370	Congenital Malformations, Deformations, and Chromosomal Abnormalities 11	Malignant Neoplasms (Cancer) 11	Chronic Liver Disease and Cirrhosis 20	Heart Disease 83	Chronic Liver Disease and Cirrhosis 153	Chronic Liver Disease and Cirrhosis 222	Accidents 237	Cerebrovascular Disease 304	Chronic Lower Respiratory Disease 819	Cerebrovascular Disease 632
5	Alzheimer's Disease 2,184	Influenza and Pneumonia 5	Congenital Malformations, Deformations, and Chromosomal Abnormalities 5	Heart Disease 20	Malignant Neoplasms (Cancer) 73	Intentional Self-Harm (Suicide) 129	Diabetes Mellitus 140	Diabetes Mellitus 235	Diabetes Mellitus 288	Cerebrovascular Disease 776	Chronic Lower Respiratory Disease 397

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

Age

Table 50, on the previous page, lists the five leading causes of death by age group for the last five years combined. Excluding infants, accidents were the leading cause of death for South Dakotans through age 39.

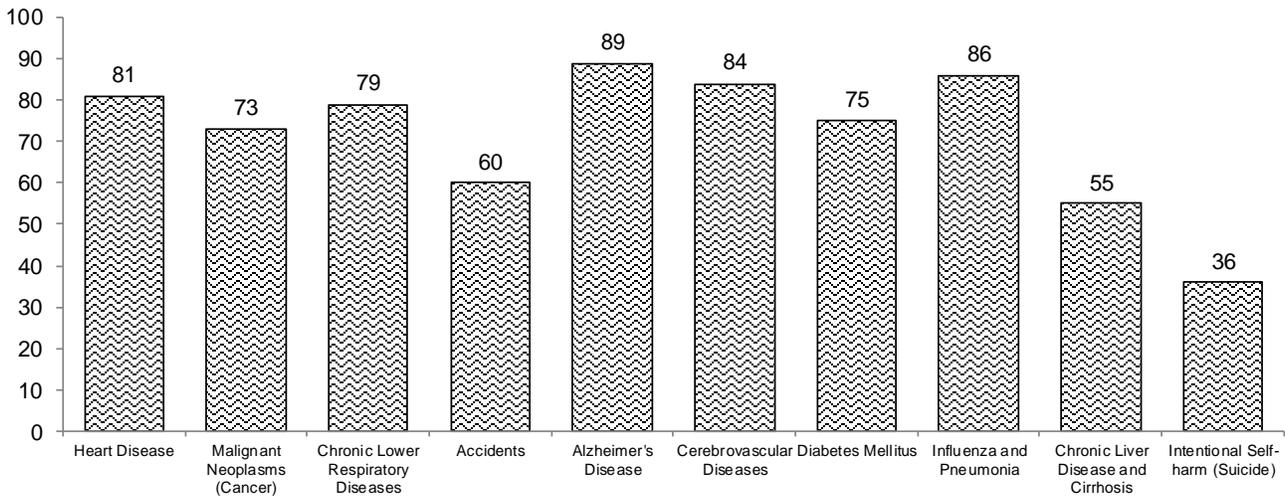
The leading cause of death for persons 40-79 was cancer. Heart disease was the leading cause of death for persons aged 80 and older.

Median Age

Figure 9, below, presents data on the median age at death for the 10 leading causes of death for South Dakota residents in 2018. The median age for

the 10 leading causes of death in 2018 ranged from 36 for suicide to 89 for Alzheimer’s Disease.

**Figure 9**  
**Median Age at Death for South Dakota Residents for the Leading Causes of Death, 2018**



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

Table 51, below, shows the median age at death for each of the past five years by race and gender. When looking at race, American Indian, non-Hispanics have the

lowest median age at death at 59, while white, non-Hispanics have the highest at 81. Males’ median age at death is 75, while females is 83.

**Table 51**  
**Median Age at Death for South Dakota Residents by Race, Gender and Year of Death, 2014-2018**

Year of Death	Total Median Age	White, non-Hispanic	American Indian, non-Hispanic	Male	Female
2018	79	81	59	75	83
2017	79	81	57	75	83
2016	79	81	58	75	83
2015	80	81	56	76	83
2014	80	81	58	76	83

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

Table 52, below, shows the median age at death for South Dakota residents for the leading causes of death by race and gender. In 2018, the median age at death for white, non-Hispanic residents ranged from 46 for suicide to 89 for Alzheimer's Disease and unspecified dementia.

The range for American Indian, non-Hispanics was 20 for suicides to 79 for influenza and pneumonia. For males the range in 2018 was 38 for suicide to 87 for Alzheimer's Disease. The range for females was 51 for chronic liver disease and cirrhosis to 90 for unspecified dementia.

**Table 52**  
**Median Age at Death for South Dakota Residents for the Leading Causes of Death by Race and Gender, 2018**

Cause of Death	Median Age at Death in Years				
	All	Race		Gender	
	Total Deaths	White, non-Hispanic	American Indian, non-Hispanic	Male	Female
<b>South Dakota (All Deaths)</b>	<b>79</b>	<b>81</b>	<b>59</b>	<b>75</b>	<b>83</b>
Heart Disease (I00-I09, I11, I13, I20-I51)	81	83	67	77	86
Malignant Neoplasms (Cancer) (C00-C97)	73	74	67	73	74
Chronic Lower Respiratory Diseases (J40-J47)	79	80	76	78	81
Accidents (V01-X59, Y85-Y86)	60	68	35	55	72
Alzheimer's Disease (G30)	89	89	*	87	89
Cerebrovascular Diseases (I60-I69)	84	85	73	80	87
Diabetes Mellitus (E10-E14)	75	79	62	71	79
Influenza and Pneumonia (J09-J18)	86	87	79	85	87
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	55	*	50	58	51
Intentional Self-Harm (Suicide) (*U03, X60-X84, Y87.0)	36	46	20	38	*
Septicemia (A40-A41)	*	*	62	*	*
Assault (homicide) (X85-Y019, Y87.1)	*	*	27	*	*
Unspecified Dementia (F03)	*	89	*	*	90

Note: Letter / number combinations following cause of death are ICD-10 codes.

\*This cause was not one of the 10 leading causes of death for this race or gender.

The asterisks (\*) preceding the cause-of-death codes indicate that they are not part of the International Classification of Diseases, Tenth Revision.

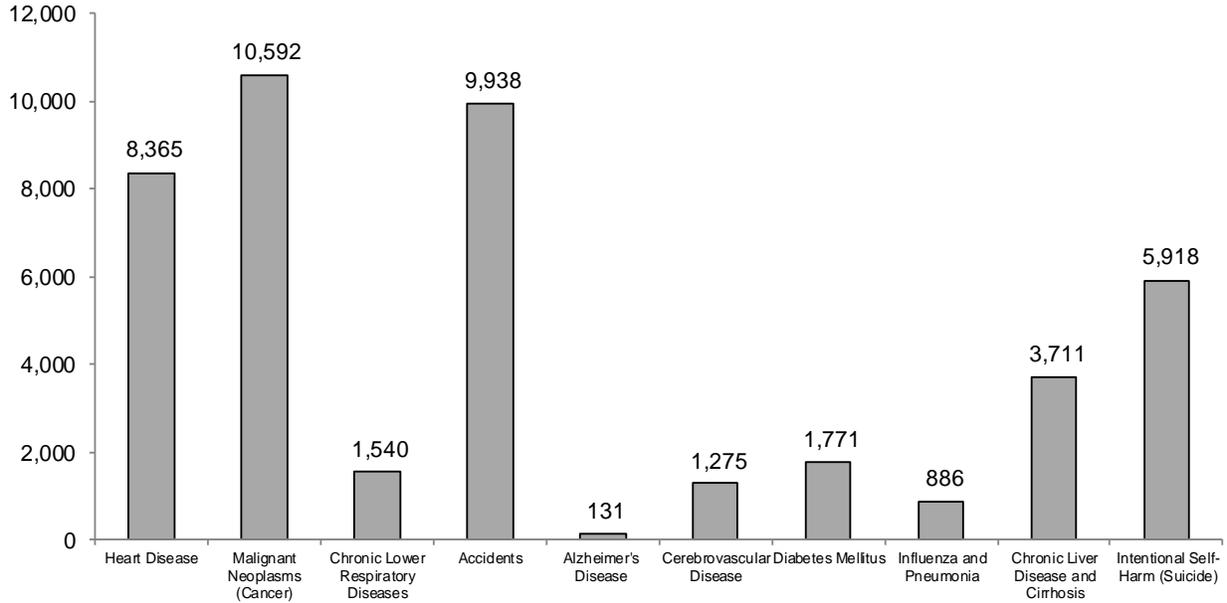
Source: South Dakota Department of Health, Office of Health Statistics

### Years of Potential Life Lost

Figure 10, on the next page, depicts the years of potential life lost (YPLL) before age 75 for each of these causes.

In 2018, cancer led in YPLL with 10,592 followed by accidents with 9,938 years of potential life lost.

**Figure 10**  
**South Dakota Resident Years of Potential Life Lost (YPLL)**  
**Before Age 75 for the Leading Causes of Death, 2018**

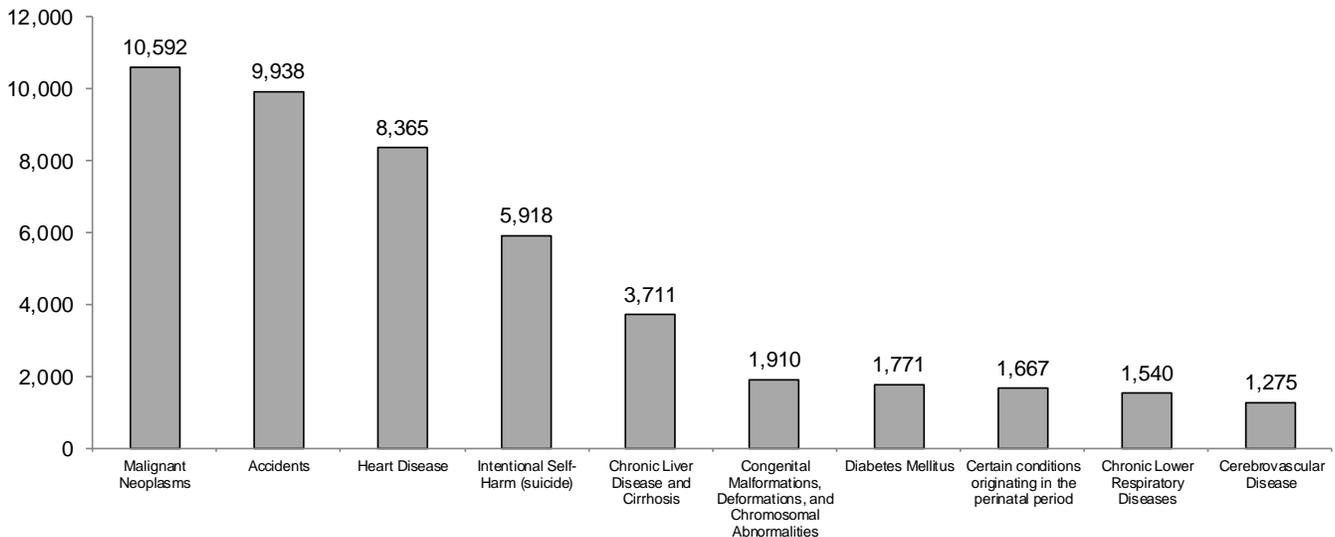


Note: This data is not comparable to the age-adjusted data in Figure 11 on the next page.  
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 10a, below, shows the years of potential life lost (YPLL) before age 75 for each of the causes in order from highest YPLL to lowest YPLL.

Cancer, accidents, and heart disease led in the most YPLL in South Dakota for 2018. Accidents had the most YPLL in 2017.

**Figure 10a**  
**South Dakota Resident Years of Potential Life Lost (YPLL)**  
**Before Age 75 for the Leading Causes of Death (in Descending Order), 2018**



Note: This data is not comparable to the age-adjusted data in Figure 11 on the next page.  
 Source: South Dakota Department of Health, Office of Health Statistics

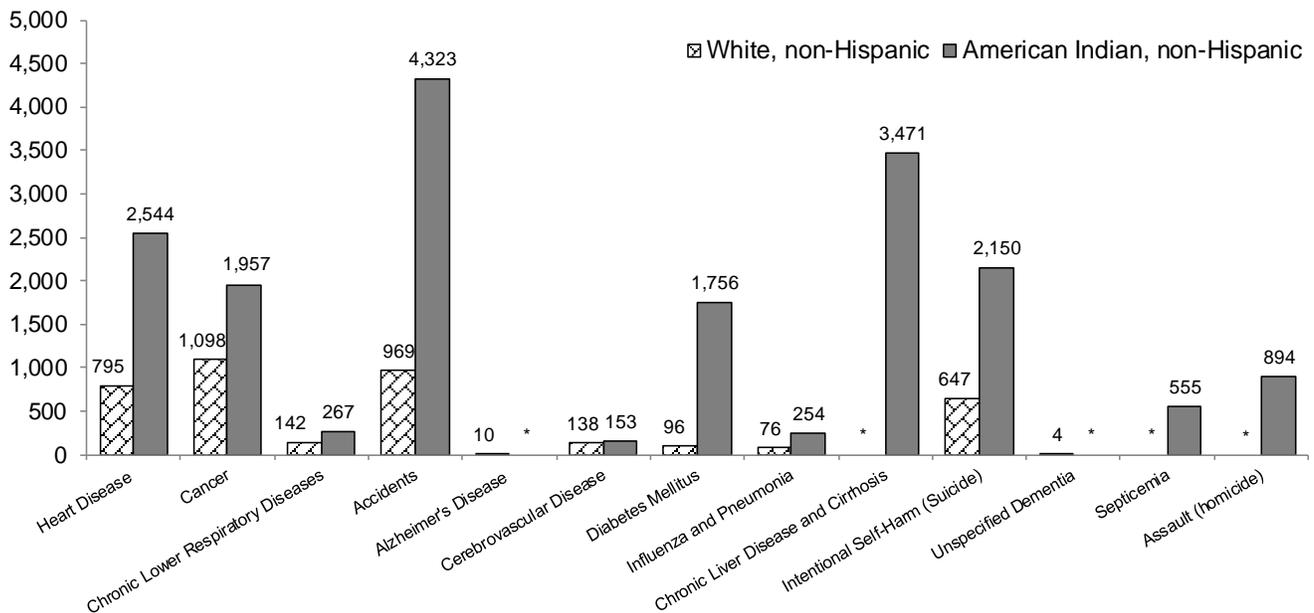
Figure 11, below, illustrates the years of potential life lost (YPLL) before age 75 per 100,000 population for the top 10 causes of death by race. When comparing YPLL by race, American Indian, non-Hispanics exceeded white, non-Hispanics substantially in YPLL for the leading causes of death.

American Indian, non-Hispanics' largest YPLL rate was accidents with 4,323 years while white, non-Hispanics' largest YPLL was cancer with 1,098 years.

White, non-Hispanics' second largest YPLL was accidents with 969 years while American Indian, non-Hispanics' second largest YPLL was chronic liver disease and cirrhosis with 3,471 years.

American Indian, non-Hispanics' and white, non-Hispanics' third largest YPLL was heart disease with 2,544 years and 795 years, respectively. Diabetes was the sixth largest YPLL for American Indian, non-Hispanics, which still exceeded white, non-Hispanics' largest YPLL.

**Figure 11**  
**Age-Adjusted Years of Potential Life Lost (YPLL) Before Age 75 for the Leading Causes of Death by Race, 2018**



Note: Years of potential life lost are age-adjusted per 100,000 population.  
 \*This cause was not one of the 10 leading causes of death for this race group.  
 Source: South Dakota Department of Health, Office of Health Statistics

**Place of Death**

Table 53, on the next page, displays the 10 leading causes of death by place where death occurred in 2018.

Overall, nursing home, long term care, and hospice facility had the highest occurrence of deaths with 43.0 percent. Hospital followed closely with 31.1 percent.

**Table 53**  
**South Dakota Resident Deaths by Cause of Death and Place of Death, 2018**

Cause of Death	Total		Hospital		Nursing Home/Long Term Care/Hospice Facility		Residence		All Other Reported Entries	
	Num	%	Num	%	Num	%	Num	%	Num	%
<b>South Dakota (All Deaths)</b>	<b>7,971</b>	<b>100</b>	<b>2,482</b>	<b>31.1</b>	<b>3,424</b>	<b>43.0</b>	<b>1,706</b>	<b>21.4</b>	<b>358</b>	<b>4.5</b>
Heart Disease (I00-I09, I11, I13, I20-I51)	1,797	100	556	30.9	655	36.4	516	28.7	70	3.9
Malignant Neoplasms (Cancer) (C00-C97)	1,632	100	380	23.3	753	46.1	466	28.6	33	2.0
Chronic Lower Respiratory Diseases (J40-J47)	498	100	172	34.5	207	41.6	112	22.5	7	1.4
Accidents (V01-X59, Y85-Y86)	452	100	161	35.6	67	14.8	75	16.6	148	32.7
Alzheimer's Disease (G30)	437	100	15	3.4	387	88.6	34	7.8	1	0.2
Cerebrovascular Diseases (I60-I69)	387	100	147	38.0	203	52.5	35	9.0	2	0.5
Diabetes Mellitus (E10-E14)	252	100	81	32.1	102	40.5	62	24.6	7	2.8
Influenza and Pneumonia (J09-J18)	246	100	121	49.2	107	43.5	17	6.9	1	0.4
Intentional Self-Harm (Suicide) (*U03, X60-X84, Y87.0)	168	100	21	12.5	0	0.0	99	58.9	48	28.6
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	185	100	87	47.0	50	27.0	44	23.8	4	2.2
All Other Causes	1,917	100	741	38.7	893	46.6	246	12.8	37	1.9

Note: The asterisks (\*) preceding the cause of death codes indicate they are not part of the International Classification of Diseases, Tenth Revision. The place of death data may not add to the total due to not stated places not being specified but being included in the total.

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

### Tobacco Use

On the death certificate, the certifier was instructed to check “yes” or “probably” if in their opinion, the use of tobacco contributed to death or check “no” if in their clinical judgment tobacco use did not contribute to the death. There was also the option of “unknown” if the certifier was unsure if tobacco use contributed to death.

On 1,498 deaths, or 18.8 percent, the certifier indicated “yes” or “probably” that tobacco use contributed to the death. Conversely, on 4,780 deaths, or 60.0 percent, the certifier indicated that tobacco use did not contribute to the death.

In the remaining 1,693 deaths, or 21.2 percent, the certifier was unsure if tobacco use contributed to the death.

Table 54, on the next page, displays the 10 leading causes of death where the certifier said “yes” or “probably” that tobacco use contributed to the death.

Tobacco use contributed to death in 73.7 percent, or 292 out of the 396 trachea, bronchus, and lung cancer deaths in 2018. In 64.5 percent, or 321 chronic lower respiratory disease deaths the certifier said “yes” or “probably” that tobacco use contributed to the death.

**Table 54**  
**South Dakota Resident Leading Causes of Death as They Relate to Tobacco Use, 2018**  
**(Did Tobacco Use Contribute to Death)**

Cause of Death	Yes/Probably		Total Deaths	
	Number	Percent	Number	Percent
<b>Total</b>	<b>1,498</b>	<b>18.8</b>	<b>7,971</b>	<b>100</b>
<b>Malignant neoplasms (C00-C97)</b>	<b>473</b>	<b>29.0</b>	<b>1,632</b>	<b>100</b>
Malignant neoplasm of trachea, bronchus, and lung (C33-C34)	292	73.7	396	100
Malignant neoplasm of esophagus (C15)	28	57.1	49	100
Malignant neoplasms of colon, rectum, and anus (C18-C21)	22	13.0	169	100
Malignant neoplasm of pancreas (C25)	17	14.7	116	100
Malignant neoplasm of bladder (C67)	14	41.2	34	100
<b>Chronic lower respiratory diseases (J40-J47)</b>	<b>321</b>	<b>64.5</b>	<b>498</b>	<b>100</b>
Chronic obstructive pulmonary disease, unspecified (J44.9)	229	68.4	335	100
Chronic obstructive pulmonary disease with acute lower respiratory infection (J44.0)	44	51.2	86	100
Emphysema (J43)	26	83.9	31	100
Chronic obstructive pulmonary disease with acute exacerbation (J44.1)	18	66.7	27	100
<b>Heart disease (I00-I09, I11, I13, I20-I51)</b>	<b>318</b>	<b>17.7</b>	<b>1,797</b>	<b>100</b>
Acute myocardial infarction (I21-I22)	116	19.2	603	100
Atherosclerotic heart disease (I25.1)	93	20.7	450	100
Hypertensive heart disease (I11)	21	13.3	158	100
Essential (primary) hypertension and hypertensive renal disease (I10 & I12)	16	14.2	113	100
Atherosclerotic cardiovascular disease, so described (I25.0)	14	26.4	53	100
Heart failure (I50)	12	15.6	77	100
<b>Cerebrovascular diseases (I60-I69)</b>	<b>48</b>	<b>12.4</b>	<b>387</b>	<b>100</b>
<b>Diabetes mellitus (E10-E14)</b>	<b>43</b>	<b>17.1</b>	<b>252</b>	<b>100</b>
<b>Chronic liver disease and cirrhosis (K70 &amp; K73-K74)</b>	<b>27</b>	<b>14.6</b>	<b>185</b>	<b>100</b>
Alcoholic liver disease (K70)	24	15.7	153	100
<b>Influenza and pneumonia (J09-J18)</b>	<b>22</b>	<b>8.9</b>	<b>246</b>	<b>100</b>
Pneumonia (J12-J18)	17	8.7	196	100
<b>Alzheimer's Disease (G30)</b>	<b>19</b>	<b>4.3</b>	<b>437</b>	<b>100</b>
<b>Accidents (V01-X59, Y85-Y86)</b>	<b>17</b>	<b>3.8</b>	<b>452</b>	<b>100</b>
<b>Peripheral vascular disease, unspecified (I73.9)</b>	<b>12</b>	<b>38.7</b>	<b>31</b>	<b>100</b>

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

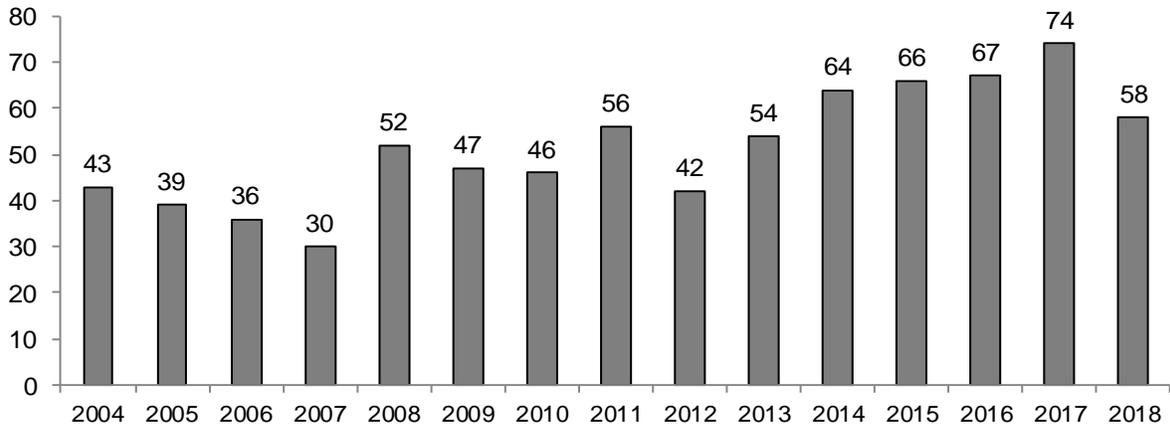
### Drug Overdose Deaths

Figures 12-17 And Tables 55-62 on the following pages break down the drug overdose deaths for South Dakota residents for the past 15 years by the manner of death, year of death, and type of drug.

As shown in Figure 12 , there were 58 drug overdose deaths in 2018, down from 74 drug overdose deaths in 2017. Table 55, below that, shows that of the 58 drug

overdose deaths in 2018, 43 deaths were unintentional, 11 deaths were suicides, and four deaths were undetermined intent. The definition of drug overdose deaths is located in the back of this report within the Technical Notes section.

**Figure 12**  
**South Dakota Resident Deaths Due to Drug Overdoses, 2004-2018**



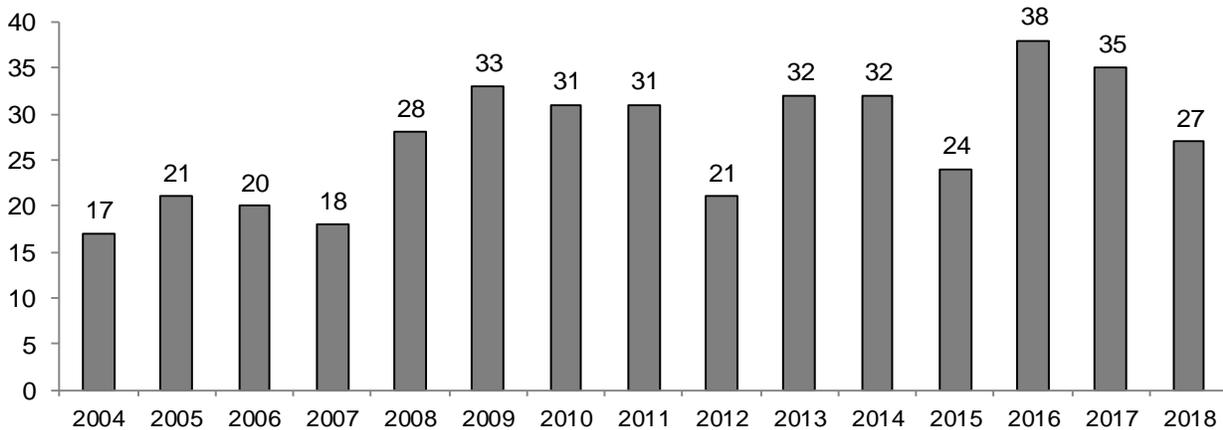
Source: South Dakota Department of Health, Office of Health Statistics

**Table 55**  
**South Dakota Resident Deaths Due to Drug Overdose by Manner of Death and Year of Death for All Drugs, 2004-2018**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Total</b>	43	39	36	30	52	47	46	56	42	54	64	66	67	74	58
<b>Unintentional</b>	26	18	21	15	30	26	19	41	24	34	46	44	52	54	43
<b>Suicide</b>	12	14	12	8	13	12	16	11	11	15	12	19	12	18	11
<b>Homicide</b>	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0
<b>Undetermined Intent</b>	5	7	3	7	9	8	11	4	7	4	6	3	2	2	4

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

**Figure 13**  
**South Dakota Resident Deaths Due to All Opioid Poisoning, 2004-2018**



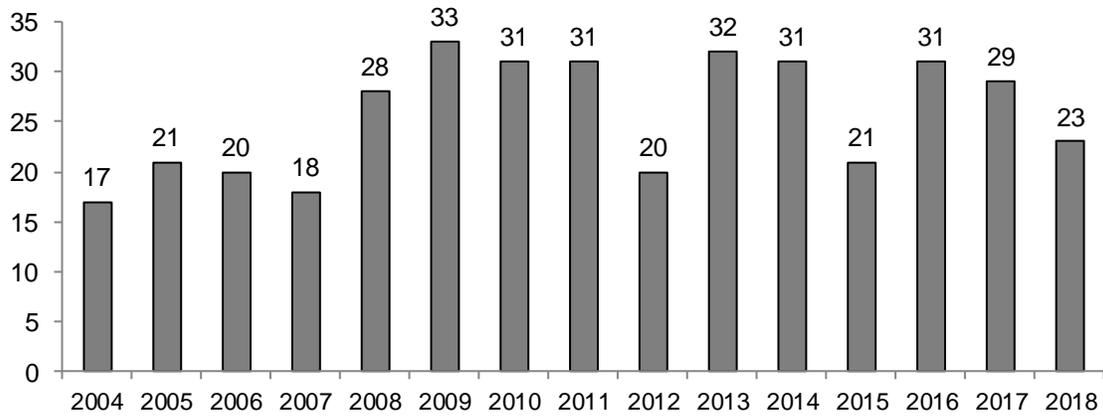
Source: South Dakota Department of Health, Office of Health Statistics

**Table 56**  
**South Dakota Resident Deaths Due to Drug Overdose by Manner of Death and Year of Death for All Opioid Poisoning, 2004-2018**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Total</b>	17	21	20	18	28	33	31	31	21	32	32	24	38	35	27
<b>Unintentional</b>	12	10	15	9	18	22	15	26	15	21	27	19	31	28	22
<b>Suicide</b>	3	6	3	3	4	6	8	3	2	9	2	4	6	7	3
<b>Homicide</b>	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
<b>Undetermined Intent</b>	2	5	2	6	6	4	8	2	4	2	3	1	1	0	2

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

**Figure 14**  
**South Dakota Resident Deaths Due to Prescription Opioid Poisoning, 2004-2018**



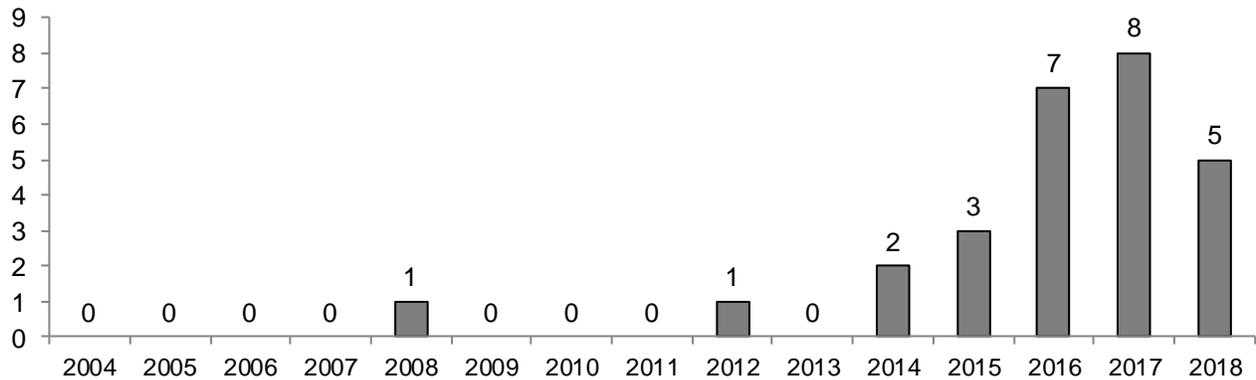
Source: South Dakota Department of Health, Office of Health Statistics

**Table 57**  
**South Dakota Resident Deaths Due to Drug Overdose by Manner of Death and Year of Death for Prescription Opioid Poisoning, 2004-2018**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Total</b>	17	21	20	18	28	33	31	31	20	32	31	21	31	29	23
<b>Unintentional</b>	12	10	15	9	18	22	15	26	14	21	26	16	24	22	19
<b>Suicide</b>	3	6	3	3	4	6	8	3	2	9	2	4	6	7	3
<b>Homicide</b>	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
<b>Undetermined Intent</b>	2	5	2	6	6	4	8	2	4	2	3	1	1	0	1

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

**Figure 15**  
**South Dakota Resident Deaths Due to Illicit Opioid Poisoning, 2004-2018**



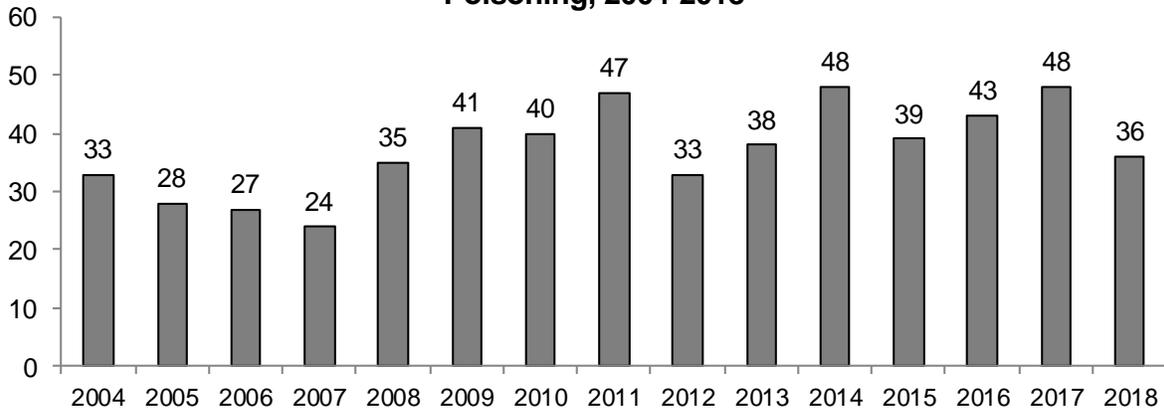
Source: South Dakota Department of Health, Office of Health Statistics

**Table 58**  
**South Dakota Resident Deaths Due to Drug Overdose by Manner of Death and Year of Death for Illicit Opioid Poisoning, 2004-2018**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Total</b>	0	0	0	0	1	0	0	0	1	0	2	3	7	8	5
<b>Unintentional</b>	0	0	0	0	1	0	0	0	1	0	2	3	7	8	4
<b>Suicide</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Homicide</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Undetermined Intent</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

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

**Figure 16**  
**South Dakota Resident Deaths Due to All Pharmaceutical Drug Poisoning, 2004-2018**



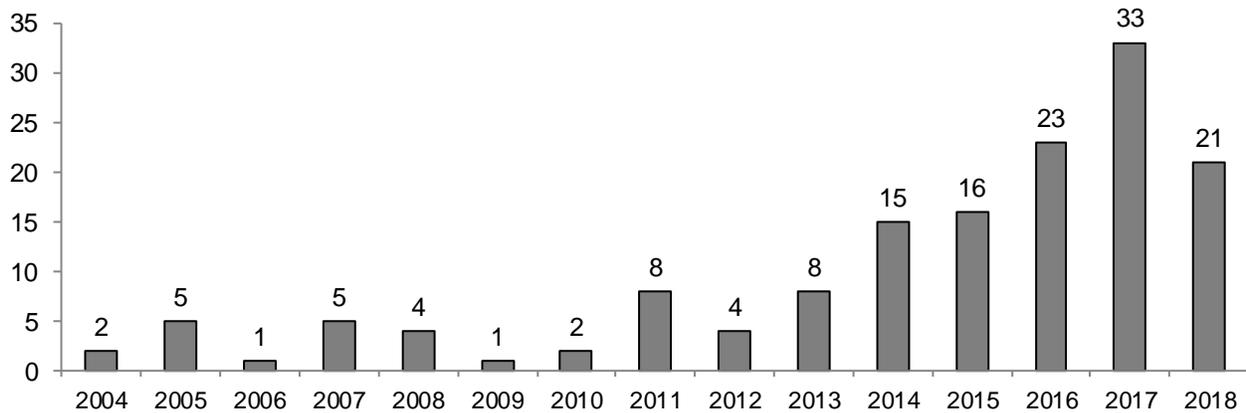
Source: South Dakota Department of Health, Office of Health Statistics

**Table 59**  
**South Dakota Resident Deaths Due to Drug Overdose by Manner of Death and Year of Death for All Pharmaceutical Drug Poisoning, 2004-2018**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Total</b>	33	28	27	24	35	41	40	47	33	38	48	39	43	48	36
<b>Unintentional</b>	18	11	16	10	19	22	16	34	18	24	33	24	31	30	23
<b>Suicide</b>	10	11	9	7	8	11	14	10	10	12	9	12	10	17	11
<b>Homicide</b>	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
<b>Undetermined Intent</b>	5	6	2	7	8	7	10	3	5	2	6	3	1	1	2

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

**Figure 17**  
**South Dakota Resident Deaths Due to Illicit Drug Poisoning, 2004-2018**



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

**Table 60**  
**South Dakota Resident Deaths Due to Drug Overdose by Manner of Death and Year of Death for Illicit Drug Poisoning, 2004-2018**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Total</b>	2	5	1	5	4	1	2	8	4	8	15	16	23	33	21
<b>Unintentional</b>	2	4	0	5	3	1	2	7	3	6	14	16	23	31	19
<b>Suicide</b>	0	0	1	0	0	0	0	1	1	1	1	0	0	1	0
<b>Homicide</b>	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
<b>Undetermined Intent</b>	0	1	0	0	1	0	0	0	0	0	0	0	0	1	2

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

The following tables (61 and 62) show the specific drugs involved in drug overdose deaths for 2018 and for the past 10 years. Out of the 58 total drug deaths in 2018, 13 of those involved methamphetamine. Of those 13 deaths, 10 listed methamphetamine as the only drug, while the other three deaths involved at least one other drug.

The following is an explanation of what is represented with regard to “Drugs Involved” in deaths due to a drug overdose:

- Please note that just because a drug is involved in a drug overdose death doesn’t necessarily mean the overdose was due to that specific drug. It just means that drug was mentioned on the death certificate of a drug overdose

death. Sometimes we have no way of knowing which drug actually caused the overdose in cases where multiple drugs are listed.

- Please be aware that when more than one drug is “involved” in a drug overdose, each drug is counted separately. For example, if methamphetamine and heroin are both listed on the death certificate, each drug will be counted once even though it’s just one death.
- Also, if something like Vicodin, which is a combination of drugs, is listed on the death certificate, each drug will be counted and “involved” in the overdose.
- Analogs of fentanyl are included in the total for fentanyl.

**Table 61**  
**South Dakota Resident Deaths Due to Drug Overdose by Drugs Involved, 2018**

Drugs Involved	Number of Deaths	Number of Specific Drugs Listed on Death Certificate	
		Only Drug Involved	Other Drugs Involved
Methamphetamine	13	10	3
Fentanyl (Includes analogs)	12	9	3
Cocaine (Benzoylcegonine)	8	4	4
Oxycodone (Oxycontin, Percocet, Percodan)	7	4	3
Heroin	5	2	3
Alprazolam (Xanax)	3	0	3
Bupropion (Wellbutrin)	3	2	1
Methadone (Methadose)	3	2	1

Note: ICD -10 Codes: X40-X44, X60-X64, X85, Y10-Y14  
Source: South Dakota Department of Health, Office of Health Statistics

**Table 62**  
**South Dakota Resident Deaths Due to Drug Overdose by Drugs Involved and Year of Death, 2009-2018**

Drugs Involved and Number of Specific Drugs on Death Certificate	Total	Year of Death									
		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Methamphetamine</b>	<b>98</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>9</b>	<b>14</b>	<b>13</b>	<b>18</b>	<b>22</b>	<b>13</b>
Only Drug Involved	64	0	1	2	3	6	10	10	10	12	10
Other Drugs Involved	34	0	1	2	0	3	4	3	8	10	3
<b>Oxycodone (Oxycontin, Percocet, Percodan)</b>	<b>75</b>	<b>13</b>	<b>9</b>	<b>9</b>	<b>3</b>	<b>10</b>	<b>8</b>	<b>2</b>	<b>9</b>	<b>5</b>	<b>7</b>
Only Drug Involved	38	9	4	2	2	6	5	2	2	2	4
Other Drugs Involved	37	4	5	7	1	4	3	0	7	3	3
<b>Fentanyl (Includes Analogs)</b>	<b>64</b>	<b>7</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>12</b>	<b>12</b>
Only Drug Involved	42	5	4	3	2	1	4	6	2	6	9
Other Drugs Involved	22	2	0	1	0	1	3	1	5	6	3
<b>Morphine</b>	<b>58</b>	<b>3</b>	<b>9</b>	<b>7</b>	<b>6</b>	<b>10</b>	<b>11</b>	<b>1</b>	<b>7</b>	<b>3</b>	<b>1</b>
Only Drug Involved	32	2	7	4	5	5	6	0	2	1	0
Other Drugs Involved	26	1	2	3	1	5	5	1	5	2	1
<b>Hydrocodone (Vicodin)</b>	<b>54</b>	<b>3</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>9</b>	<b>5</b>	<b>7</b>	<b>10</b>	<b>4</b>	<b>2</b>
Only Drug Involved	25	1	2	2	3	4	2	3	5	2	1
Other Drugs Involved	29	2	3	2	2	5	3	4	5	2	1
<b>Methadone (Methadose)</b>	<b>45</b>	<b>4</b>	<b>8</b>	<b>9</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>
Only Drug Involved	26	3	7	4	1	1	3	3	1	1	2
Other Drugs Involved	19	1	1	5	0	1	3	1	3	3	1
<b>Heroin</b>	<b>29</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>8</b>	<b>8</b>	<b>5</b>
Only Drug Involved	12	1	0	0	1	0	0	1	4	3	2
Other Drugs Involved	17	0	0	1	0	0	2	2	4	5	3
<b>Amitriptyline</b>	<b>23</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>3</b>	<b>2</b>
Only Drug Involved	7	1	0	2	2	1	0	0	0	1	0
Other Drugs Involved	16	0	2	0	2	2	1	1	4	2	2
<b>Cocaine (Benzoyllecgonine)</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>8</b>
Only Drug Involved	6	0	0	1	0	0	0	0	0	1	4
Other Drugs Involved	14	0	0	2	0	0	0	3	3	2	4
<b>Diphenhydramine</b>	<b>17</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>2</b>
Only Drug Involved	11	2	0	1	0	1	2	2	1	1	1
Other Drugs Involved	6	0	1	0	1	0	0	2	1	0	1
<b>Acetaminophen (Darvocet, Excedrin, Percocet, Tylenol, Vicodin)</b>	<b>17</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>
Only Drug Involved	6	1	0	1	0	0	2	2	0	0	0
Other Drugs Involved	11	2	1	3	0	1	0	1	2	1	0
<b>Tramadol</b>	<b>16</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>0</b>
Only Drug Involved	7	1	1	1	2	1	0	1	0	0	0
Other Drugs Involved	9	0	1	1	1	1	0	1	3	1	0
<b>Alprazolam (Xanax)</b>	<b>15</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>
Only Drug Involved	3	0	0	0	1	1	1	0	0	0	0
Other Drugs Involved	12	2	1	3	1	1	0	0	1	0	3
<b>Quetiapine (Seroquel)</b>	<b>15</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>1</b>
Only Drug Involved	6	1	1	0	1	0	0	0	1	1	1
Other Drugs Involved	9	0	4	0	0	0	0	0	2	3	0
<b>Citalopram (Celexa)</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>
Only Drug Involved	1	0	0	0	1	0	0	0	0	0	0
Other Drugs Involved	10	0	1	1	0	2	3	0	0	2	1
<b>Bupropion (Wellbutrin)</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>3</b>
Only Drug Involved	6	0	0	1	0	0	2	0	0	1	2
Other Drugs Involved	4	0	0	0	0	0	0	0	1	2	1

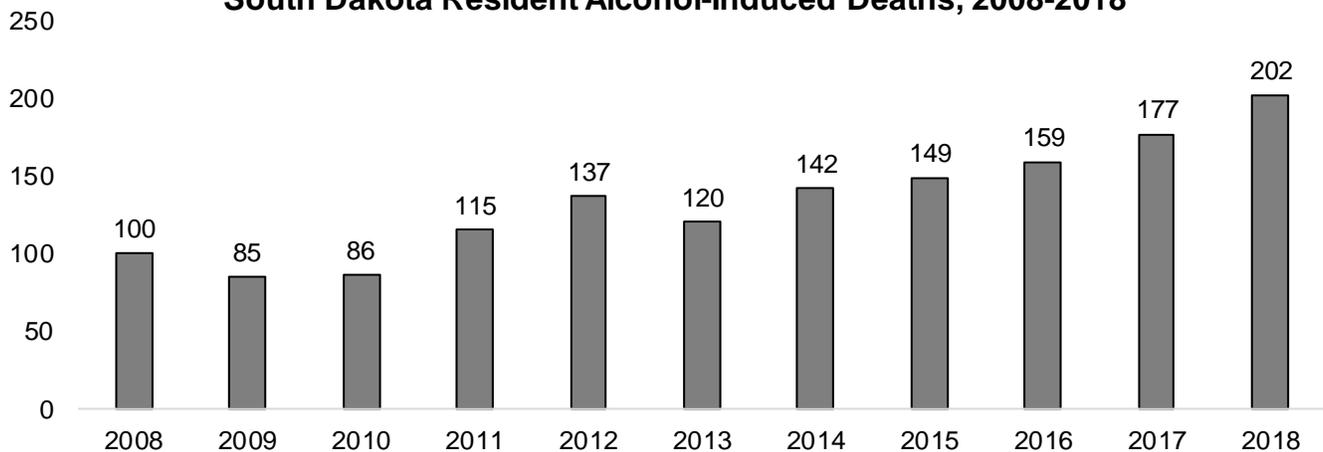
Note: ICD-10 CODES X40-X44, X60-X64, X85, Y10-Y14  
Source: South Dakota Department of Health, Office of Health Statistics

### Alcohol-Induced Deaths

Figure 18, below, shows the alcohol-induced deaths for South Dakota residents for the past 11 years. The definition of

alcohol-induced deaths is located in the back of this report within the Technical Notes section.

**Figure 18**  
**South Dakota Resident Alcohol-Induced Deaths, 2008-2018**



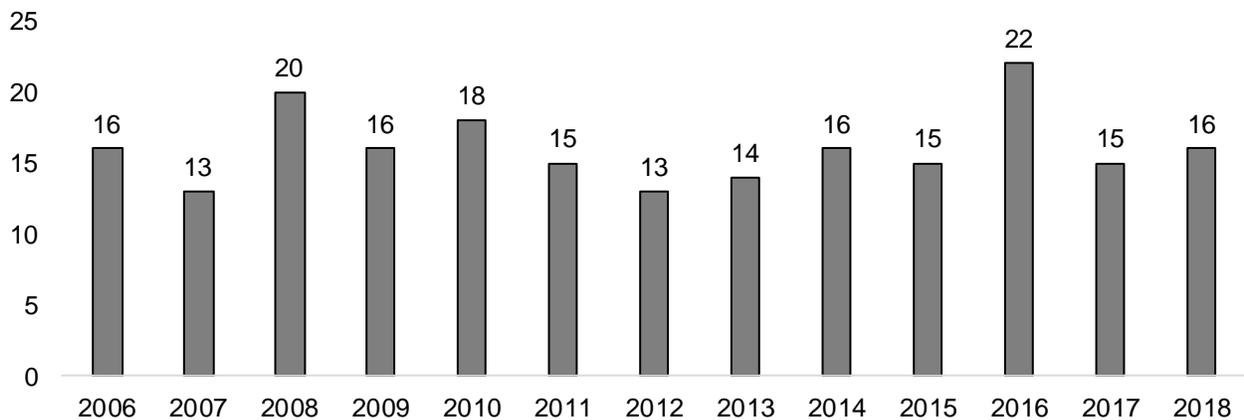
Source: South Dakota Department of Health, Office of Health Statistics

### Farm Accident Deaths

Figure 19, below, shows the number of South Dakota resident deaths due to farm accidents for the past 10 years. The

definition of farm accident deaths is located in the back of this report within the Technical Notes section.

**Figure 19**  
**South Dakota Resident Deaths Due to Farm Accidents, 2006-2018**



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

### Maternal Mortality

Table 63, on the following page, shows maternal mortality deaths for the past eight

years. Specific definitions are located in the notes below the table.

**Table 63**  
**Deaths Occurring in South Dakota to Women Who Were Pregnant at the Time of**  
**Death or Within One Year After Delivery, 2011-2018**

Year	Any Death While Pregnant, or Within One Year After Delivery	Pregnancy-Related	Pregnancy Associated, But Not Pregnancy-Related
2018	8	*	*
2017	5	*	*
2016	7	*	*
2015	6	2	4
2014	5	1	4
2013	6	1	5
2012	7	1	6
2011	8	3	5

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

Note: Pregnancy-related: Death resulting from: 1) complications of the pregnancy itself, or 2) the chain of events initiated by the pregnancy that led to death, or 3) aggravation of an unrelated condition by the physiologic or pharmacologic effects of the pregnancy that subsequently caused death during pregnancy or within one calendar year of termination of pregnancy, regardless of the duration or anatomical site of pregnancy. This designation comes from the CDC as part of the Pregnancy Mortality Surveillance System (PMSS). \*--The latest year they have reviewed for South Dakota is 2015.

Pregnancy-associated, but not pregnancy-related: Death of a woman from any cause, while she is pregnant or within one calendar year of termination of pregnancy, regardless of the duration or anatomical site of pregnancy, but not pregnancy related (see above). This designation comes from the CDC as part of the Pregnancy Mortality Surveillance System (PMSS). \*--The latest year they have reviewed for South Dakota is 2015.

Firearm Deaths

Table 64, below, shows firearm deaths for South Dakota residents for the past 10 years. The definition of firearm deaths is

located in the back of this report within the Technical Notes section.

**Table 64**  
**South Dakota Resident Deaths Due to Firearms, 2009-2018**

Year	Total Firearm Deaths	Manner of Death				
		Accident	Suicide	Homicide	Legal Intervention	Undetermined Intent
2018	117	7	91	16	3	0
2017	102	2	83	12	4	1
2016	107	5	83	14	5	0
2015	95	5	73	14	2	1
2014	90	2	76	9	3	0
2013	79	1	71	5	2	0
2012	84	2	76	6	0	0
2011	71	2	59	6	4	0
2010	75	4	65	3	2	1
2009	75	4	61	10	0	0

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

## Method of Disposition

Table 65, below, displays the different methods of disposition for the last 13 years. The top disposition in 2018 was burial with 3,949 deaths. The second highest method of

disposition in 2018 was cremation with 3,554 deaths. Since 2006, cremation has increased from 20.5 percent of all dispositions to 44.6 percent in 2018.

**Table 65**  
**South Dakota Resident Deaths by Disposition, 2006-2018**

Year	Total Deaths	Type of Disposition									
		Burial		Cremation		Removal from State		Donation		Entombment	
		Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
2018	7,971	3,949	49.5	3,554	44.6	425	5.3	34	0.4	7	0.1
2017	7,991	4,106	51.4	3,315	41.5	512	6.4	46	0.6	9	0.1
2016	7,838	4,145	52.9	3,190	40.7	447	5.7	38	0.5	17	0.2
2015	7,724	4,335	56.1	2,939	38.1	413	5.3	23	0.3	14	0.2
2014	7,500	4,302	57.4	2,738	36.5	398	5.3	40	0.5	15	0.2
2013	7,079	4,146	58.6	2,468	34.9	417	5.9	32	0.5	15	0.2
2012	7,283	4,465	61.3	2,345	32.2	428	5.9	33	0.5	10	0.1
2011	7,271	4,539	62.4	2,211	30.4	472	6.5	33	0.5	10	0.1
2010	7,087	4,548	64.2	2,044	28.8	433	6.1	47	0.7	10	0.1
2009	6,913	4,545	65.7	1,855	26.8	464	6.7	34	0.5	8	0.1
2008	7,056	4,857	68.8	1,662	23.6	485	6.9	35	0.5	9	0.1
2007	6,800	4,775	70.2	1,474	21.7	481	7.1	46	0.7	18	0.3
2006	7,038	5,127	72.8	1,440	20.5	431	6.1	30	0.4	6	0.1

Note: Failure of deaths to add to total is due to the disposition not stated.

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

## Leading Causes and Selected Components

Tables 66a-66c, on pages 75 through 77, display South Dakota resident deaths, the crude death rate, and the age-adjusted death rate for 15 leading causes and selected components from 2009 to 2018.

The crude and age-adjusted rates for all causes in 2018 were 903.5 and 715.7 respectively, which are down from the crude and age-adjusted rates in 2017 of 918.9 and 736.1, respectively.

**Table 66a**  
**South Dakota Resident Deaths for 15 Leading Causes and Selected Components, 2009-**  
**2018**

Cause of Death	Number of Deaths									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>All Causes</b>	<b>6,913</b>	<b>7,087</b>	<b>7,271</b>	<b>7,283</b>	<b>7,079</b>	<b>7,500</b>	<b>7,724</b>	<b>7,838</b>	<b>7,991</b>	<b>7,791</b>
<b>Heart Disease</b>	1,778	1,611	1,615	1,652	1,617	1,695	1,712	1,732	1,708	1,797
<b>Malignant Neoplasms (Cancer)</b>	1,506	1,651	1,656	1,623	1,574	1,679	1,632	1,691	1,717	1,632
Trachea, Bronchus, and Lung	387	434	457	434	416	439	424	420	421	396
Colon, Rectum, and Anus	157	168	137	166	169	186	168	163	158	169
Pancreas	110	98	95	105	109	118	109	128	124	116
Female Breast	95	103	122	107	108	100	104	109	102	112
Prostate	84	96	88	75	76	75	90	107	71	92
Leukemia	57	82	77	68	89	90	66	61	62	58
<b>Chronic Lower Respiratory Diseases</b>	440	451	485	479	413	440	500	427	505	498
<b>Accidents</b>	348	391	407	417	424	461	467	503	537	452
Motor Vehicle Accidents	133	141	99	142	149	151	143	135	166	156
<b>Alzheimer's Disease</b>	402	401	423	462	420	433	421	449	444	437
<b>Cerebrovascular Diseases</b>	417	411	442	410	414	439	381	420	410	387
<b>Diabetes Mellitus</b>	200	241	267	219	239	223	282	253	262	252
<b>Influenza and Pneumonia</b>	135	166	178	188	186	180	213	195	217	246
<b>Chronic Liver Disease and Cirrhosis</b>	79	83	98	113	121	128	137	158	152	185
<b>Intentional Self-Harm (Suicide)</b>	128	139	125	135	147	141	173	161	192	168
<b>Unspecified Dementia</b>	90	91	117	111	99	120	126	121	105	133
<b>Septicemia</b>	63	66	69	64	74	81	119	81	100	117
<b>Essential (Primary) Hypertension and Hypertensive Renal Disease</b>	52	93	94	78	72	95	103	92	102	113
<b>Parkinson's Disease</b>	65	85	73	53	78	63	80	86	89	104
<b>Vascular Dementia</b>	42	60	67	72	46	68	72	71	78	79

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

**Table 66b**  
**South Dakota Resident Crude Death Rates for 15 Leading Causes and Selected Components, 2009-2018**

Cause of Death	Crude Death Rates									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>All Causes</b>	<b>851.0</b>	<b>870.4</b>	<b>882.3</b>	<b>873.9</b>	<b>837.9</b>	<b>879.1</b>	<b>899.7</b>	<b>905.7</b>	<b>918.9</b>	<b>903.5</b>
<b>Heart Disease</b>	218.9	197.9	196.0	198.2	191.4	198.7	199.4	200.1	196.4	203.7
<b>Malignant Neoplasms (Cancer)</b>	185.4	202.8	201.0	194.8	186.3	196.8	190.1	195.4	197.4	185.0
Trachea, Bronchus, and Lung	47.6	53.3	55.5	52.1	49.2	51.5	49.4	48.5	48.4	44.9
Colon, Rectum, and Anus	19.3	20.6	16.6	19.9	20.0	21.8	19.6	18.8	18.2	19.2
Pancreas	13.5	12.0	11.5	12.6	12.9	13.8	12.7	14.8	14.3	13.1
Female Breast	23.4	25.3	29.7	25.8	25.7	23.6	24.4	25.4	23.7	25.6
Prostate	20.7	23.6	21.3	17.9	17.9	17.5	20.8	24.5	16.2	20.6
Leukemia	7.0	10.1	9.3	8.2	10.5	10.5	7.7	7.0	7.1	6.6
<b>Chronic Lower Respiratory Diseases</b>	54.2	55.4	58.9	57.5	48.9	51.6	58.2	49.3	58.1	56.4
<b>Accidents</b>	42.8	48.0	49.4	50.0	50.2	54.0	54.4	58.1	61.7	51.2
Motor Vehicle Accidents	16.4	17.3	12.0	17.0	17.6	17.7	16.7	15.6	19.1	17.7
<b>Alzheimer's Disease</b>	49.5	49.3	51.3	55.4	49.7	50.8	49.0	51.9	51.1	49.5
<b>Cerebrovascular Diseases</b>	51.3	50.5	53.6	49.2	49.0	51.5	44.4	48.5	47.1	43.9
<b>Diabetes Mellitus</b>	24.6	29.6	32.4	26.3	28.3	26.1	32.8	29.2	30.1	28.6
<b>Influenza and Pneumonia</b>	16.6	20.4	21.6	22.6	22.0	21.1	24.8	22.5	25.0	27.9
<b>Chronic Liver Disease and Cirrhosis</b>	9.7	10.2	11.9	13.6	14.3	15.0	16.0	18.3	17.5	21.0
<b>Intentional Self-Harm (Suicide)</b>	15.8	17.1	15.2	16.2	17.4	16.5	20.2	18.6	22.1	19.0
<b>Unspecified Dementia</b>	11.1	11.2	14.2	13.3	11.7	14.1	14.7	14.0	12.1	15.1
<b>Septicemia</b>	7.8	8.1	8.4	7.7	8.8	9.5	13.9	9.4	11.5	13.3
<b>Essential (Primary) Hypertension and Hypertensive Renal Disease</b>	6.4	11.4	11.4	9.4	8.5	11.1	12.0	10.6	11.7	12.8
<b>Parkinson's Disease</b>	8.0	10.4	8.9	6.4	9.2	7.4	9.3	9.9	10.2	11.8
<b>Vascular Dementia</b>	5.2	7.4	8.1	8.6	5.4	8.0	8.4	8.2	9.0	9.0

Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.  
Source: South Dakota Department of Health, Office of Health Statistics

**Table 66c**  
**South Dakota Resident Age-Adjusted Death Rates for 15 Leading Causes and Selected Components, 2009-2018**

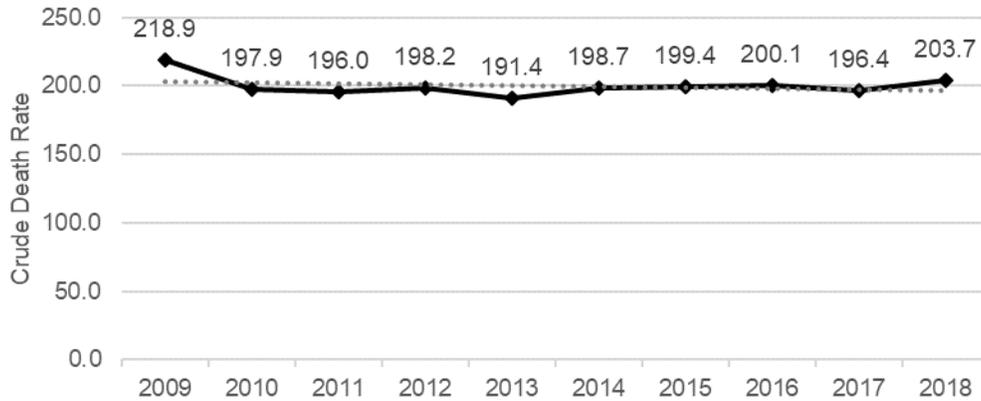
Cause of Death	Age-Adjusted Death Rates									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>All Causes</b>	<b>688.6</b>	<b>713.4</b>	<b>716.1</b>	<b>706.8</b>	<b>677.4</b>	<b>709.9</b>	<b>714.9</b>	<b>718.6</b>	<b>736.1</b>	<b>715.7</b>
<b>Heart Disease</b>	168.3	154.9	153.0	153.8	148.8	153.6	151.0	153.7	150.0	156.2
<b>Malignant Neoplasms (Cancer)</b>	156.5	170.6	168.6	162.2	154.3	161.4	153.3	156.6	157.0	145.2
Trachea, Bronchus, and Lung	40.7	45.4	47.2	43.5	41.0	41.8	39.7	38.2	38.2	35.3
Colon, Rectum, and Anus	15.8	17.0	13.9	16.4	16.7	17.6	15.7	15.2	14.2	15.2
Pancreas	11.3	10.2	9.5	10.6	10.7	11.1	10.3	11.6	11.5	10.0
Female Breast	17.6	19.7	23.7	19.5	19.3	17.9	18.7	19.3	17.3	20.0
Prostate	20.3	23.7	20.9	17.7	17.0	16.7	19.6	23.1	15.7	19.0
Leukemia	6.0	8.6	7.8	7.3	9.0	8.8	6.2	5.6	5.5	5.1
<b>Chronic Lower Respiratory Diseases</b>	43.9	46.0	47.4	45.4	39.1	40.7	45.1	38.5	45.4	43.7
<b>Accidents</b>	40.0	44.3	44.8	46.6	46.4	49.2	49.3	53.1	56.2	46.5
Motor Vehicle Accidents	16.6	17.0	11.8	17.1	17.4	17.5	16.3	15.8	19.0	17.3
<b>Alzheimer's Disease</b>	35.2	36.2	36.6	39.6	35.1	36.1	34.8	37.1	36.9	36.3
<b>Cerebrovascular Diseases</b>	38.8	39.2	42.0	37.6	37.5	38.8	33.0	35.8	36.3	33.3
<b>Diabetes Mellitus</b>	20.4	24.6	26.8	21.6	22.9	21.2	26.3	23.6	24.8	23.3
<b>Influenza and Pneumonia</b>	12.6	15.5	16.3	16.9	16.4	16.1	18.3	16.7	19.0	20.8
<b>Chronic Liver Disease and Cirrhosis</b>	8.7	9.7	11.1	13.3	13.3	16.0	15.9	16.4	17.0	19.7
<b>Intentional Self-Harm (Suicide)</b>	16.0	17.3	15.3	16.1	18.0	17.1	20.4	19.9	22.7	19.4
<b>Unspecified Dementia</b>	7.9	8.3	10.2	9.4	8.4	10.1	10.5	9.6	8.6	10.6
<b>Septicemia</b>	6.4	6.7	7.0	6.2	7.2	8.1	11.0	7.5	9.4	10.5
<b>Essential (Primary) Hypertension and Hypertensive Renal Disease</b>	4.8	8.8	8.5	6.8	6.3	8.1	8.7	7.9	8.7	9.4
<b>Parkinson's Disease</b>	6.2	8.2	7.0	5.1	7.3	6.3	7.2	7.6	8.1	9.5
<b>Vascular Dementia</b>	3.7	5.3	5.9	6.3	3.9	5.7	5.7	5.4	6.4	6.2

Note: The age-adjusted death rate is calculated using yearly U.S. Census Bureau population estimates for that year.  
Source: South Dakota Department of Health, Office of Health Statistics

The following figures on the next several pages display 10-year trends for crude death rates for the 15 leading causes of death in 2018. Note: The crude death rate is

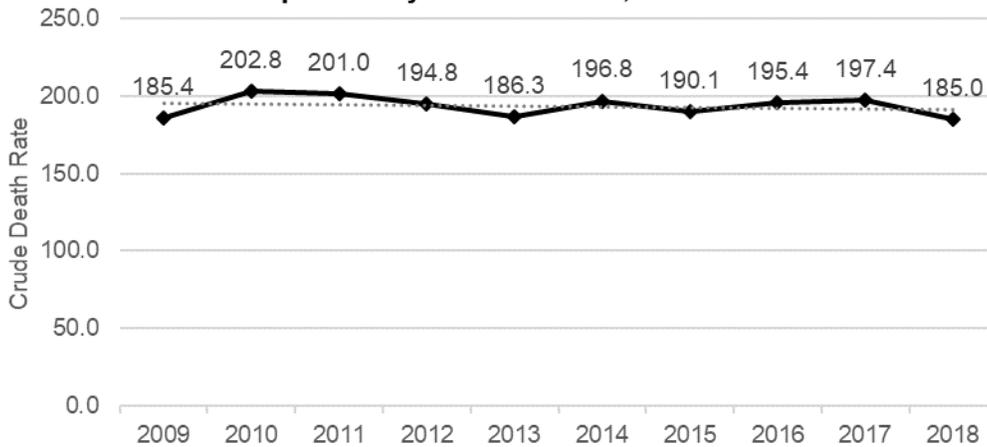
calculated using yearly U.S. Census Bureau population estimates for that year.

**Figure 20**  
**South Dakota Resident Crude Death Rate Due to Heart Disease by Year of Death, 2009-2018**



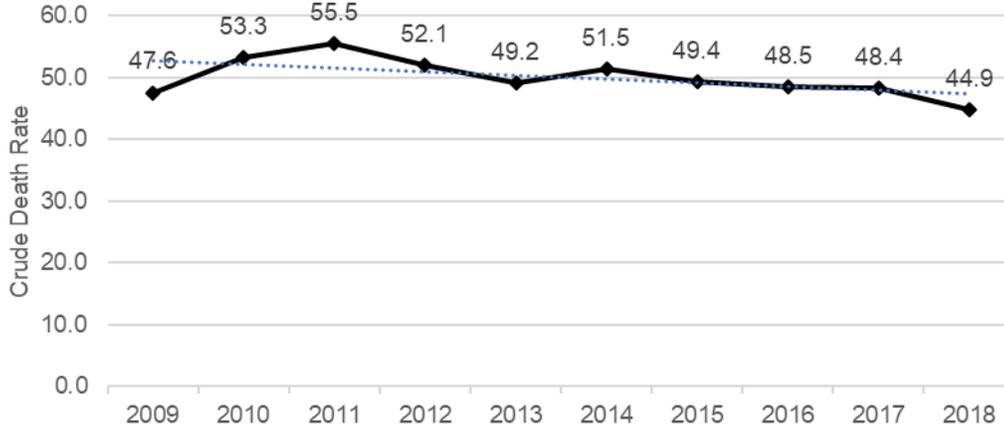
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 21**  
**South Dakota Resident Crude Death Rate Due to Malignant Neoplasms by Year of Death, 2009-2018**



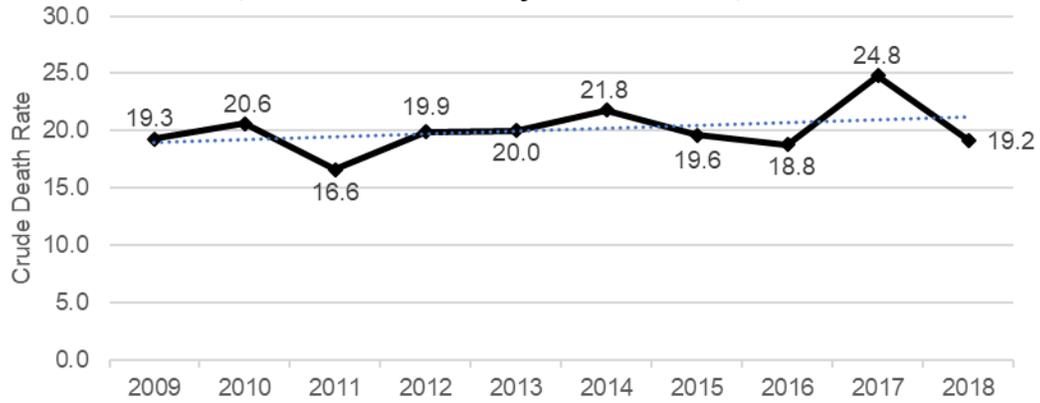
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 21a**  
**South Dakota Resident Crude Death Rate Due to Trachea, Bronchus, and Lung Cancer by Year of Death, 2009-2018**



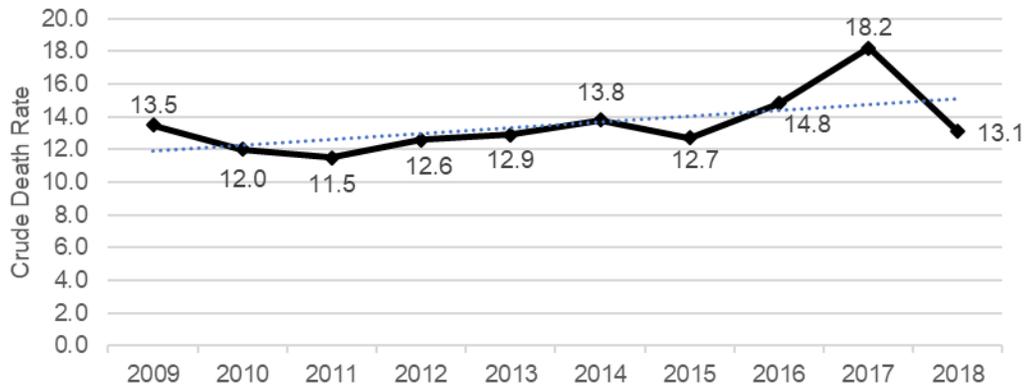
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 21b**  
**South Dakota Resident Crude Death Rate Due to Colon, Rectum, and Anus Cancer by Year of Death, 2009-2018**



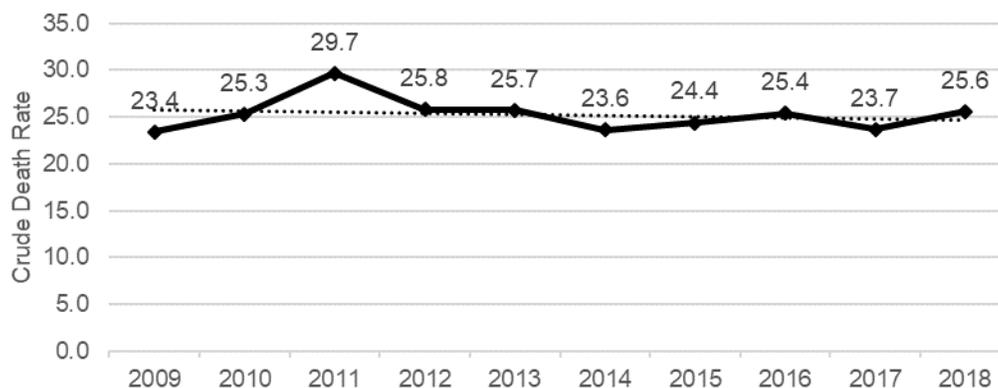
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 21c**  
**South Dakota Resident Crude Death Rate Due to Pancreas Cancer by Year of Death, 2009-2018**



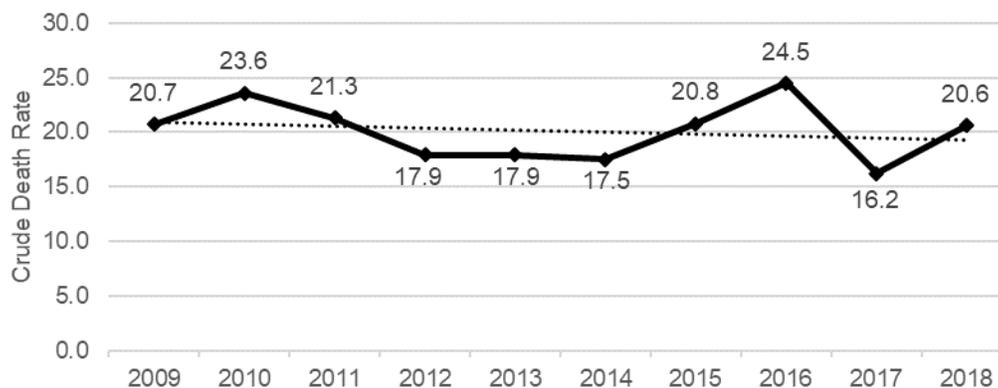
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 21d**  
**South Dakota Resident Crude Death Rate Due to Female Breast Cancer by Year of Death, 2009-2018**



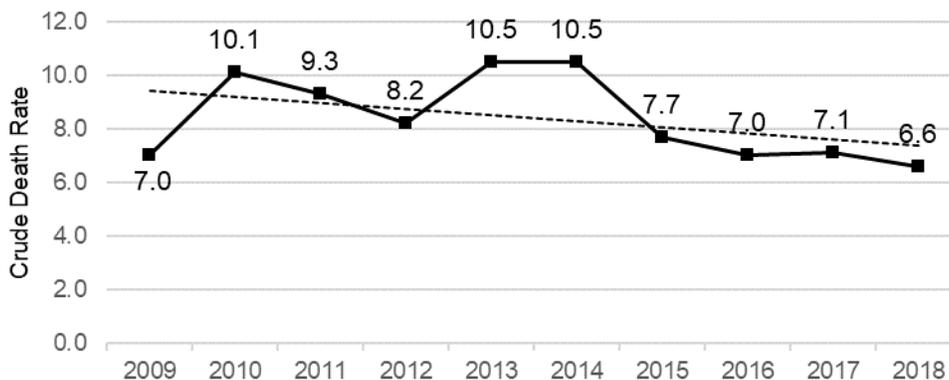
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 21e**  
**South Dakota Resident Crude Death Rate Due to Prostate Cancer by Year of Death, 2009-2018**



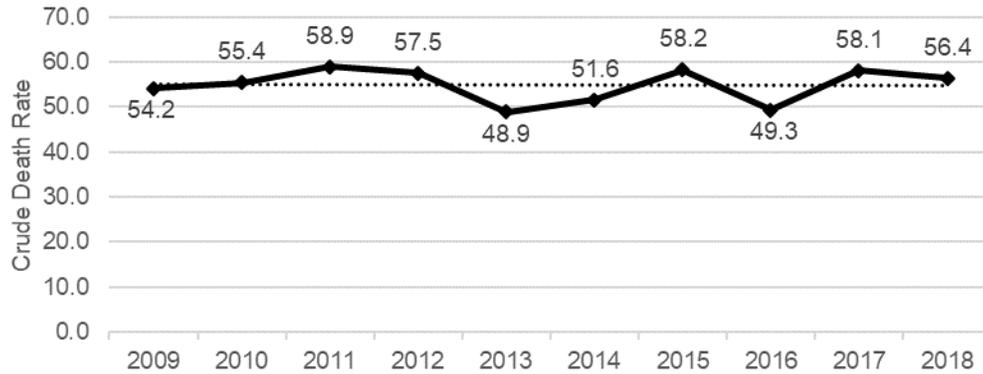
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 21f**  
**South Dakota Resident Crude Death Rate Due to Leukemia by Year of Death, 2009-2018**



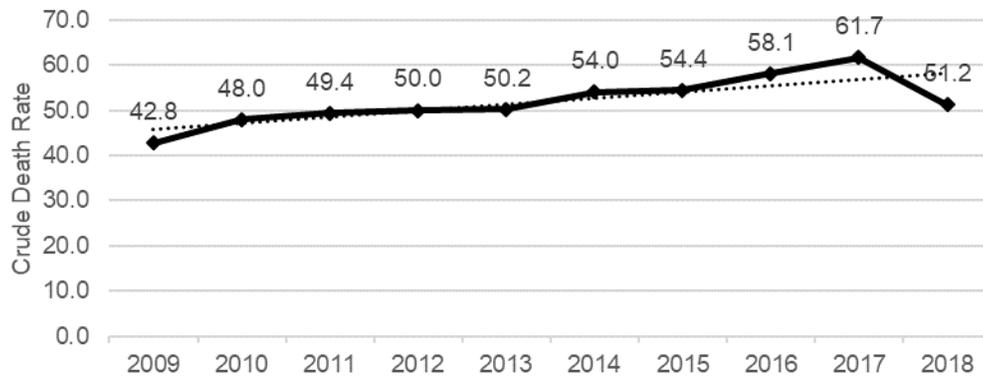
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 22**  
**South Dakota Resident Crude Death Rate Due to Chronic Lower Respiratory Disease by Year of Death, 2009-2018**



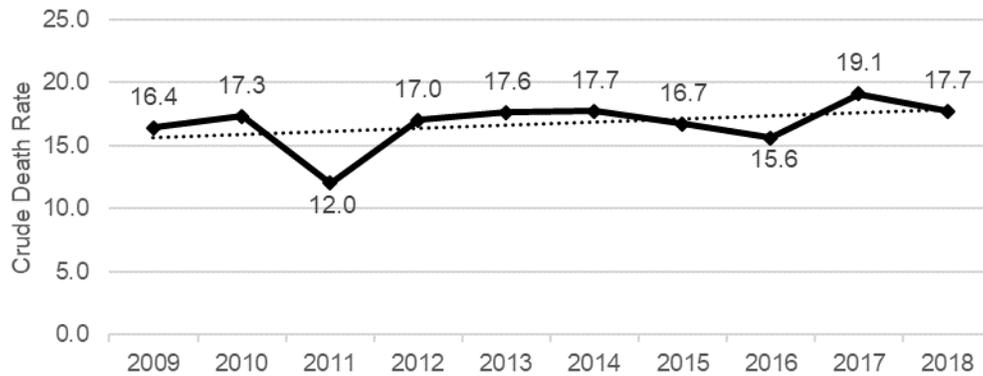
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 23**  
**South Dakota Resident Crude Death Rate Due to Accidents by Year of Death, 2009-2018**



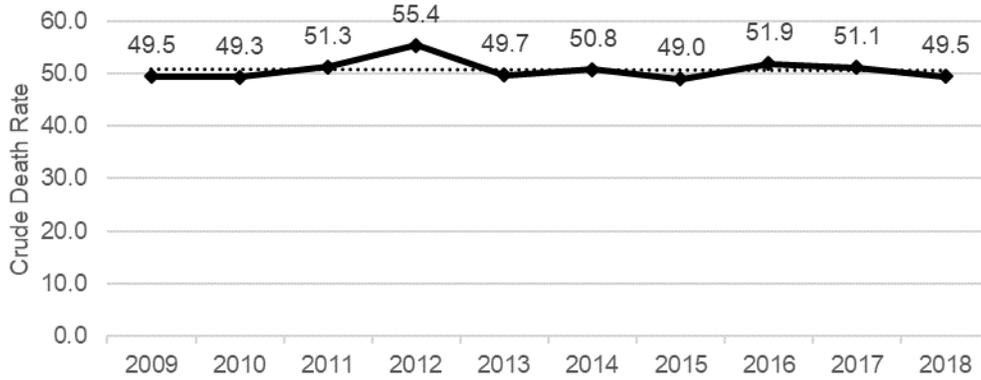
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 23a**  
**South Dakota Resident Crude Death Rate Due to Motor Vehicle Accidents by Year of Death, 2009-2018**



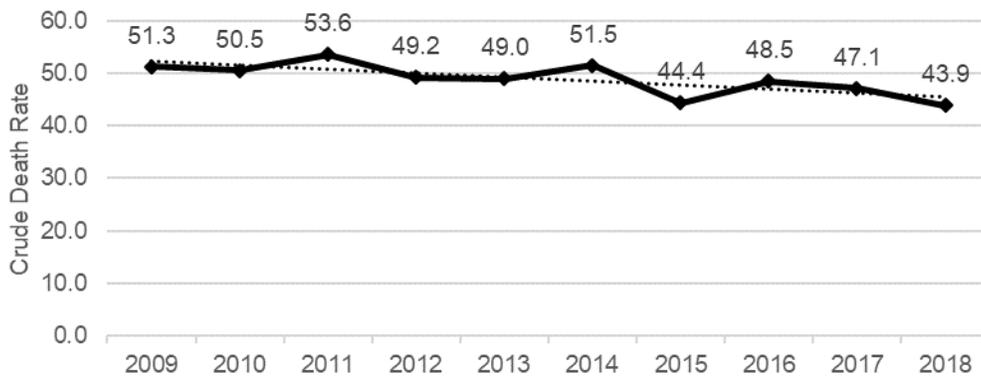
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 24**  
**South Dakota Resident Crude Death Rate Due to Alzheimer's Disease by Year of Death, 2009-2018**



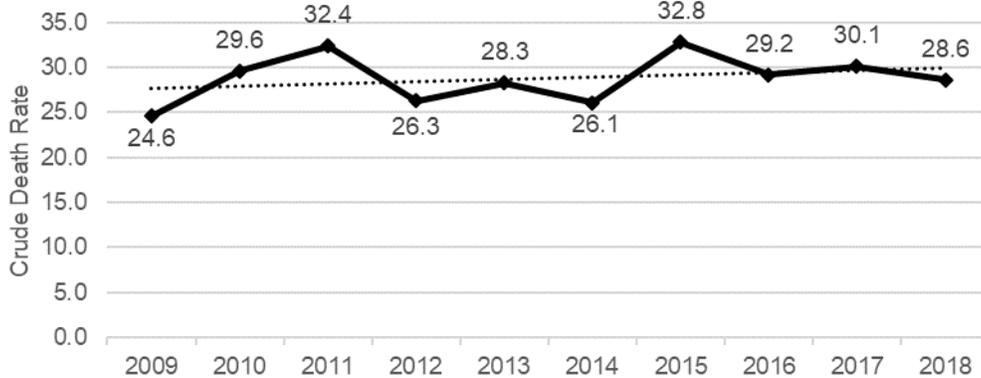
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 25**  
**South Dakota Resident Crude Death Rate Due to Cerebrovascular Disease by Year of Death, 2009-2018**



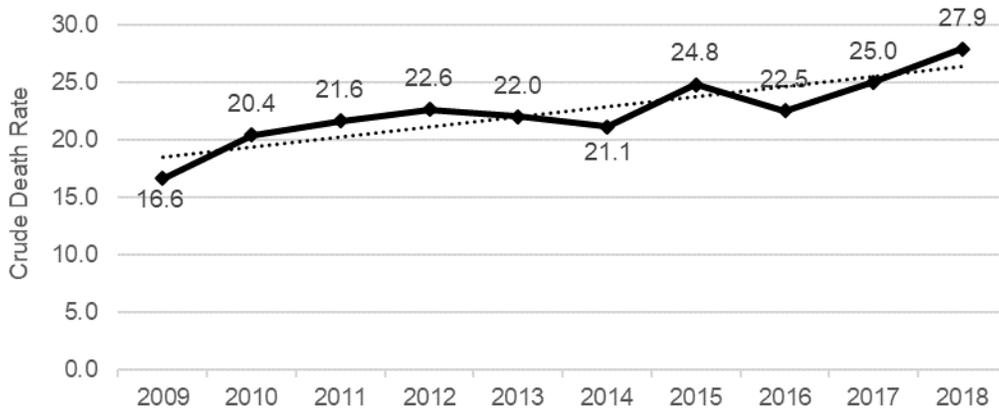
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 26**  
**South Dakota Resident Crude Death Rate Due to Diabetes Mellitus by Year of Death, 2009-2018**



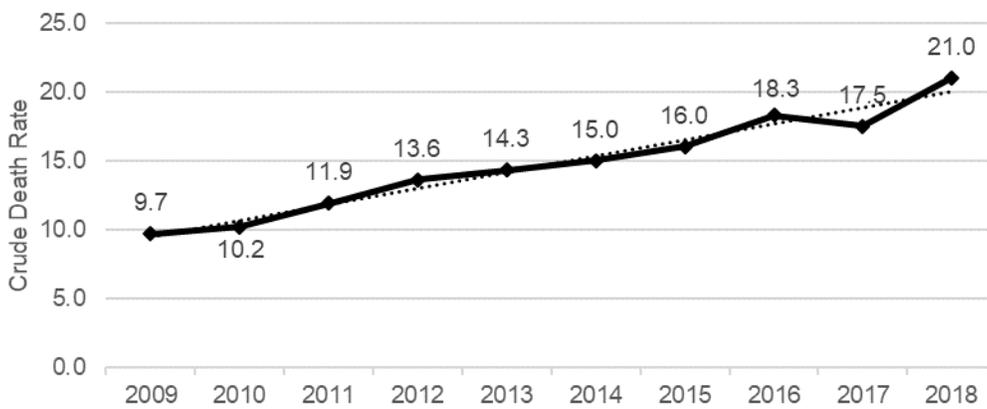
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 27**  
**South Dakota Resident Crude Death Rate Due to Influenza and Pneumonia by Year of Death, 2009-2018**



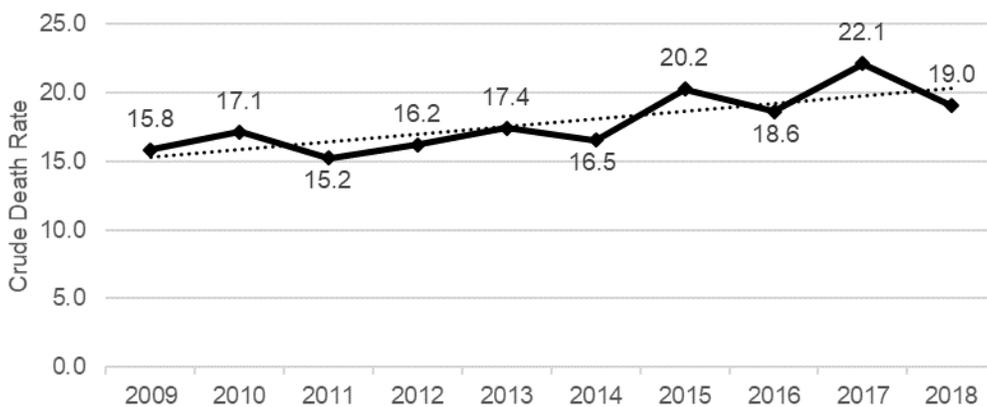
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 28**  
**South Dakota Resident Crude Death Rate Due to Chronic Liver Disease and Cirrhosis by Year of Death, 2009-2018**



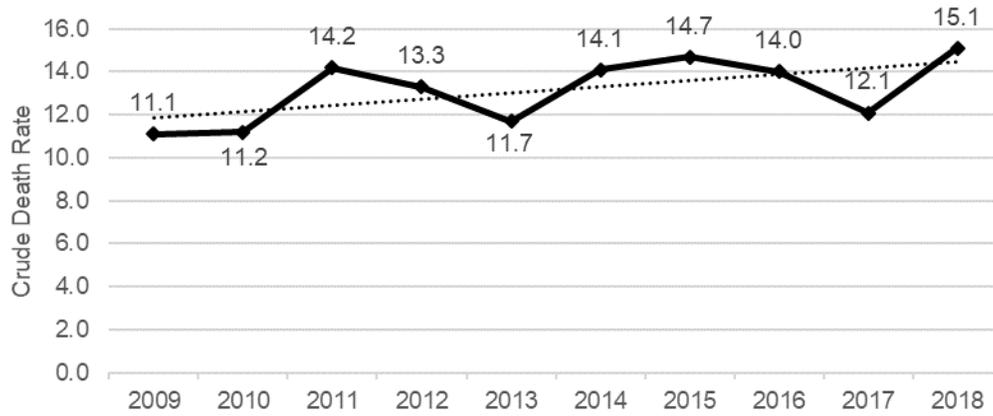
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 29**  
**South Dakota Resident Crude Death Rate Due to Intentional Self Harm (Suicide) by Year of Death, 2009-2018**



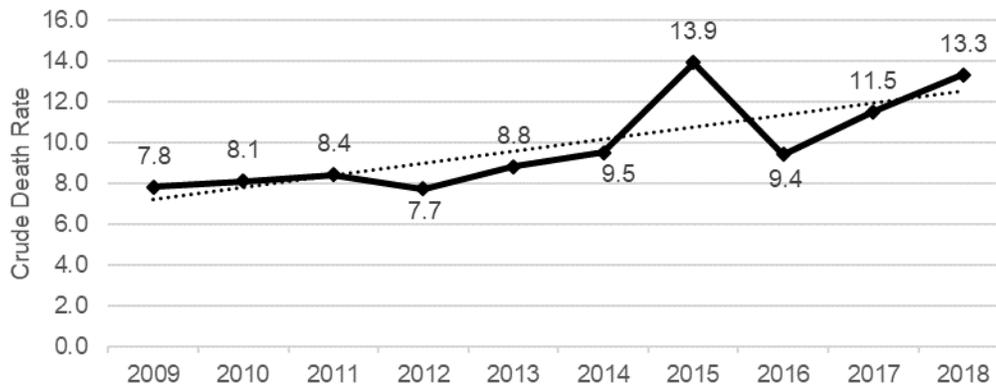
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 30**  
**South Dakota Resident Crude Death Rate Due to Unspecified Dementia by Year of Death, 2009-2018**



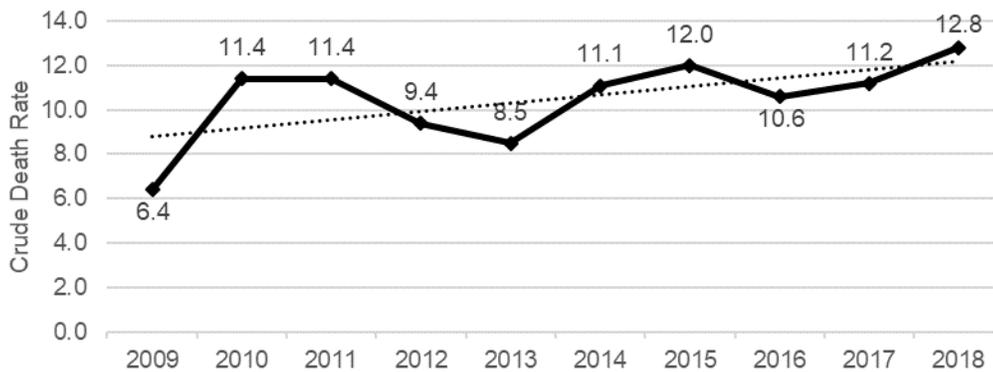
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 31**  
**South Dakota Resident Crude Death Rate Due to Septicemia by Year of Death, 2009-2018**



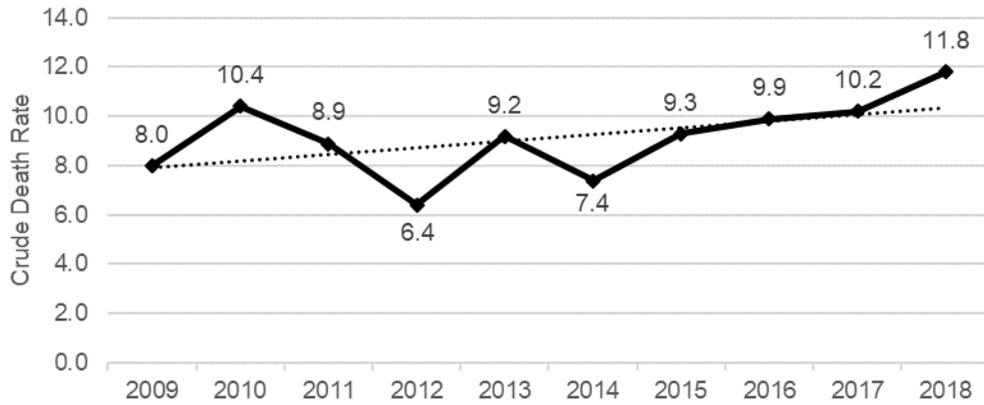
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 32**  
**South Dakota Resident Crude Death Rate Due to Essential (Primary) Hypertension and Hypertensive Renal Disease by Year of Death, 2009-2018**



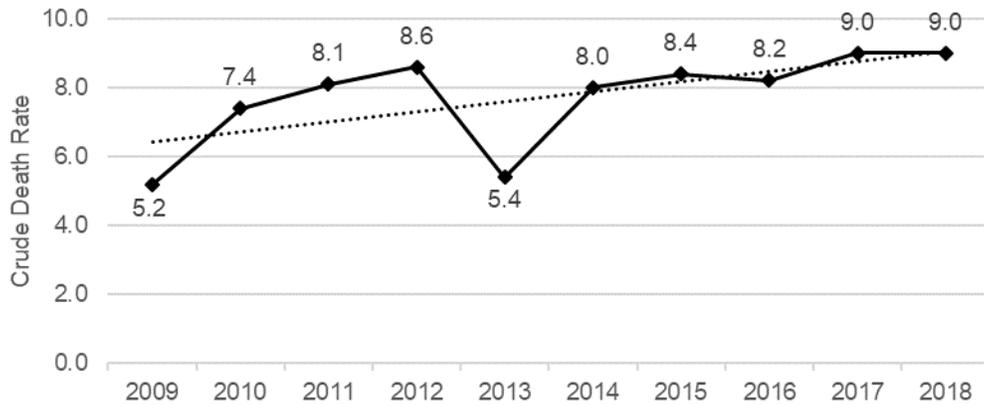
Source: South Dakota Department of Health, Office of Health Statistics

**Figure 33**  
**South Dakota Resident Crude Death Rate Due to Parkinson's Disease by Year of Death, 2009-2018**



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

**Figure 34**  
**South Dakota Resident Crude Death Rate Due to Vascular Dementia by Year of Death, 2009-2018**



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

