Mortality

An Overview: 2019

Total South Dakota Resident Deaths 8,273

Crude Death Rates per 100,000 Population

South Dakota 935.2 United States (2018) 867.8

Age-Adjusted Death Rates per 100,000 Population

South Dakota 739.6 United States (2018) 723.6

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:

white, non-Hispanic American Indian, non-Hispanic The remaining categories (Black, non-Hispanic; Asian, non-Hispanic; 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 increased in 2019.

Table 45
Resident Deaths, Crude Death Rates, and Age-Adjusted Death Rates,
South Dakota and United States, 2003-2019

		ited States	S OTHER OLD		outh Dako	ta
Year	Number	Crude Rate	Age-Adjusted Rate	Number	Crude Rate	Age-Adjusted Rate
2019	NA*	NA*	NA*	8,273	935.2	739.6
2018	2,839,205	867.8	723.6	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	8.008	6,811	879.7	742.3
2003	2,448,288	841.9	832.7	7,109	926.9	787.1

Note: *U.S. 2019 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

Leading Causes of Death

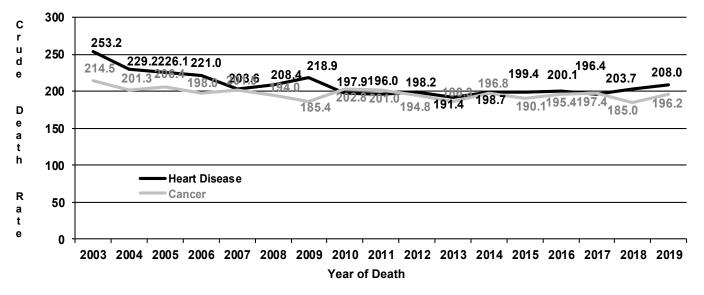
The five leading causes of death in 2019 for South Dakota residents were heart disease, cancer, chronic lower respiratory diseases, unintentional injuries, and Alzheimer's disease.

Heart disease remained the leading cause of death in South Dakota accounting for 22.2 percent of South Dakota's 2019 resident deaths.

Acute myocardial infarction was the leading cause of heart disease deaths during the year, accounting for 34.1 percent of heart disease deaths.

Cancer was the second leading cause of death in 2019 and accounted for 21.0 percent of South Dakota resident deaths, a 2.4 percent increase from 2018.

Figure 8
South Dakota Resident Crude Death Rate Due to Cancer and Heart Disease by Year of Death, 2003-2019



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 2003. From 2018 to 2019 there was an increase in both the heart disease rate and cancer rates.

Chronic lower respiratory disease accounted for 6.3 percent of South Dakota resident deaths and remained the third leading cause of death in 2019.

Unintentional injuries were the fourth leading cause of death and accounted for 6.2 percent of 2019 South Dakota resident deaths and an 8.8 percent increase from 2018. Motor vehicle accidents accounted for 25.4 percent of deaths due to unintentional injury.

Alzheimer's disease was the fifth leading cause of death accounting for 6.0 percent of all South Dakota resident deaths in 2019.

Table 46, below, displays the breakdown of deaths due to unintentional injury, which were the fourth leading cause of deaths among South Dakotans. In 2019, 512 or 6.2 percent of deaths were due to unintentional injuries.

The highest type of motor vehicle death in 2019 was car occupant with 51 deaths. The highest death in the other causes of death due to unintentional injury in 2019 was falls with 203 deaths.

Table 46
South Dakota Resident Leading Causes of Death Due to Unintentional Injuries, 2015-2019

			Yea	r of Dea	th	
	Total	2015	2016	2017	2018	2019
Total Deaths	2,471	467	503	537	452	512
Motor Vehicle Accidents	730	143	135	166	156	130
Car Occupant (V40-V49)	307	70	48	64	74	51
Occupant of Pick-Up Truck or Van (V50-V59)	125	25	28	25	19	28
Pedestrian (V01-V09)	73	10	15	16	21	11
Motorcycle Rider (V20-V29)	65	11	14	13	14	13
Occupant of Special All-Terrain Vehicle (V86)	37	9	9	5	8	6
Occupant of Heavy Transport Vehicle (V60-V69)	13	0	3	6	3	1
All Other Motor Vehicle Accidents	7	2	0	1	3	1
Motor Vehicle Accident with Unspecified Details	103	16	18	36	14	19
Other Causes of Death Due to Unintentional Injury	1,741	324	368	371	296	382
Falls (W00-W19)	914	181	185	196	149	203
Accidental Poisoning (X40-X49)	337	57	67	70	57	86
Accidental Threats to Breathing (excl. drowning) (W75-W84)	117	20	27	28	21	21
Exposure to Smoke, Fire, and Flames (X00-X09)	57	9	10	19	8	11
Accidental Drowning and Submersion (W65-W74, V90, V92)	56	13	10	8	11	14
Exposure to Excessive Natural Cold (X31)	55	5	14	13	13	10
Accidental Discharge of Firearms (W32-W34)	19	5	5	2	7	0
Contact with Agricultural Machinery (W30)	13	3	2	3	5	0
Explosion (W35-W40)	11	0	7	0	1	3
Air Transport Accidents (V95.0-V95.3, V95.8-V95.9, & V96-V97)	10	1	3	1	3	2
Struck by Thrown, Projected, or Falling Object (W20)	7	2	2	1	2	0
Bicyclist Injured in Non-Motor Vehicle Accident (V17-V18)	5	2	1	0	0	2
Pedestrian Injured in Collision with Train (V05)	5	0	0	2	2	1
All Other Causes of Uninentional Injury	135	26	35	28	17	29

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 2019 and for each of the five prior years.

Chronic lower respiratory disease remained the third leading cause of death followed by unintentional injuries, and Alzheimer's disease for the top 5 causes in 2019. In 2019, causes six through ten were cerebrovascular disease, diabetes, influenza and pneumonia, suicide, and chronic liver disease and cirrhosis.

Table 47 South Dakota Resident Leading Causes of Death, 2015-2019

Cause of Death		Total			2015			2016			2017			2018			2019	
Cause of Death	Rank	Deaths	%															
South Dakota (All Deaths)		39,797	100		7,724	100		7,838	100		7,991	100		7,971	100		8,273	100
Heart Disease (I00-I09, I11, I13, I20-I51)	1	8,789	22.1	1	1,712	22.1	1	1,732	22.1	2	1,708	21.4	1	1,797	22.5	1	1,840	22.2
Cancer (C00-C97)	2	8,408	21.1	2	1,632	21.1	2	1,691	21.6	1	1,717	21.5	2	1,632	20.5	2	1,736	21.0
Unintentional Injuries (V01- X59, Y85-Y86)	3	2,471	6.2	4	467	6.0	3	503	6.4	3	537	6.7	4	452	5.7	4	512	6.2
Chronic Lower Respiratory Diseases (J40-J47)	4	2,451	6.2	3	500	6.5	5	427	5.4	4	505	6.3	3	498	6.2	3	521	6.3
Alzheimer's Disease (G30)	5	2,247	5.6	5	421	5.5	4	449	5.7	5	444	5.6	5	437	5.5	5	496	6.0
Cerebrovascular Diseases (160-169)	6	1,971	5.0	6	381	4.9	6	420	5.4	6	410	5.1	6	387	4.9	6	373	4.5
Diabetes (E10-E14)	7	1,336	3.4	7	282	3.7	7	253	3.2	7	262	3.3	7	252	3.2	7	287	3.5
Influenza and Pneumonia (J09-J18)	8	1,060	2.7	8	213	2.8	8	195	2.5	8	217	2.7	8	246	3.1	8	189	2.3
Suicide (*U03, X60-X84, Y87.0)	9	879	2.2	9	173	2.2	9	161	2.1	9	192	2.4	10	168	2.1	9	185	2.2
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	10	786	2.0	10	137	1.8	10	158	2.0	10	152	1.9	9	185	2.3	10	154	1.9
All Other Causes	-	9,399	23.6	-	1,806	23.4	-	1,849	23.6	-	1,847	23.1	-	1,917	24.0		1,980	23.9

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, 2019

			All Rac	es			White	e, Non-l	Hispanic		Α	merican	Indian,	Non-His	panic
Cause of Death	Rank	Deaths	%	Crude Rate	Age- Adjusted Rate	Rank	Deaths	%	Crude Rate	Age- Adjusted Rate	Rank	Deaths	%	Crude Rate	Age- Adjusted Rate
South Dakota (All Deaths)		8,273	100	935.2	739.6		7,405	100	1,027.0	701.0		688	100	936.3	1,392.2
Heart Disease (I00-I09, I11, I13, I20-I51)	1	1,840	22.2	208.0	158.1	1	1,718	23.2	238.3	156.5	1	98	14.2	133.4	213.3
Cancer (C00-C97)	2	1,736	21.0	196.2	153.3	2	1,615	21.8	224.0	153.0	2(tie)	91	13.2	123.8	203.3
Chronic Lower Respiratory Diseases (J40-J47)	3	521	6.3	58.9	45.1	3	494	6.7	68.5	45.3	7	23	3.3	31.3	59.6
Unintentional Injuries (V01-X59, Y85-Y86)	4	512	6.2	57.9	52.8	5	391	5.3	54.2	43.9	2(tie)	91	13.2	123.8	132.3
Alzheimer's Disease (G30)	5	496	6.0	56.1	40.6	4	486	6.6	67.4	41.5	*	-	-	-	-
Cerebrovascular Diseases (I60-I69)	6	373	4.5	42.2	32.3	6	345	4.7	47.8	31.3	8	21	3.1	28.6	44.4
Diabetes (E10-E14)	7	287	3.5	32.4	26.8	7	223	3.0	30.9	21.3	5	56	8.1	76.2	121.1
Influenza and Pneumonia (J09-J18)	8	189	2.3	21.4	16.0	8	167	2.3	23.2	14.7	9	17	2.5	23.1	39.2
Suicide (*U03, X60-X84, Y87.0)	9	185	2.2	20.9	21.2	9	142	1.9	19.7	19.3	6	28	4.1	38.1	36.2
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	10	154	1.9	17.4	17.1	*	-	-	-	-	4	64	9.3	87.1	116.1
Hypertension (I10 & I12 & I14)	*	-	-	-	-	10	116	1.6	16.1	10.2	*	-	_	-	-
Septicemia (A40-A41)	*	-	-	-	-	*	-	-	-	-	10	16	2.3	21.8	35.4
All Other Causes	-	1,980	23.9	223.8	-	-	1,708	23.1	236.9	-	-	183	26.6	249.1	-

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.

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 2019, 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 sixth leading cause of death at 4.7 percent for the white, non-Hispanic population, but was eighth leading cause of death for the American Indian, non-Hispanic population at 3.1 percent.

Unintentional injuries were tied for the second leading cause of death for American Indian, non-Hispanics in 2019 while ranking as the fifth leading cause of death for white, non-Hispanics.

Alzheimer's disease and hypertension 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 septicemia.

<u>Gender</u>

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 2019, 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, hypertension was among the 10 leading causes of death for women, but not for men. Men were also more likely to die from unintentional injuries 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, 2019

	Total Age- Crude Adjusted							Mal	e				Fem	ale	
Cause of Death	Rank	Deaths	%	Crude Rate		Rank	Deaths	%	Crude Rate	Age- Adjusted Rate	Rank	Deaths	%	Crude Rate	Age- Adjusted Rate
South Dakota (All Deaths)		8,273	100	935.2	739.6		4,245	100	950.2	867.1		4,028	100	919.8	624.0
Heart Disease (I00-I09, I11, I13, I20-I51)	1	1,840	22.2	208.0	158.1	1	1,030	24.3	230.6	205.6	2	810	20.1	185.0	116.2
Cancer (C00-C97)	2	1,736	21.0	196.2	153.3	2	920	21.7	205.9	178.6	1	816	20.3	186.3	133.8
Chronic Lower Respiratory Diseases (J40-J47)	3	521	6.3	58.9	45.1	4	273	6.4	61.1	55.9	4	248	6.2	56.6	37.7
Unintentional Injuries (V01-X59, Y85- Y86)	4	512	6.2	57.9	52.8	3	293	6.9	65.6	64.1	6	219	5.4	50.0	40.6
Alzheimer's Disease (G30)	5	496	6.0	56.1	40.6	8	146	3.4	32.7	31.9	3	350	8.7	79.9	45.6
Cerebrovascular Diseases (I60-I69)	6	373	4.5	42.2	32.3	5(tie)	153	3.6	34.2	32.1	5	220	5.5	50.2	31.8
Diabetes (E10-E14)	7	287	3.5	32.4	26.8	5(tie)	153	3.6	34.2	31.7	7	134	3.3	30.6	22.3
Influenza and Pneumonia (J09-J18)	8	189	2.3	21.4	16.0	9	94	2.2	21.0	19.8	8	95	2.4	21.7	13.4
Suicide (*U03, X60-X84, Y87.0)	9	185	2.2	20.9	21.2	7	152	3.6	34.0	34.3	*	-	-	-	-
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	10	154	1.9	17.4	17.1	10	82	1.9	18.4	18.1	10	72	1.8	16.4	16.1
Hypertension (I10 & I12)	*	-	-	-	-	*	-	-	_	-	9	81	2.0	18.5	10.9
All Other Causes	_	1,980	23.9	223.8	-	-	949	22.4	212.4	-	-	983	24.4	224.5	-

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 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, 2015-2019

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 8,789	Unintentional Injuries 65	Unintentional Injuries 124	Unintentional Injuries 285	Unintentional Injuries 249	Cancer 231	Cancer 896	Cancer 1,943	Cancer 2,314	Heart Disease 2,520	Heart Disease 2,378
2	Cancer 8,408	Cancer 12	Suicide 123	Suicide 192	Suicide 150	Heart Disease 223	Heart Disease 643	Heart Disease 1,290	Heart Disease 1,624	Cancer 2,132	Alzheimer's Disease 1,030
3	Unintentional Injuries 2,471	Homicide 12	Homicide 19	Homicide 37	Heart Disease 82	Unintentional Injuries 208	Unintentional Injuries 283	Chronic Lower Respiratory Disease 360	Chronic Lower Respiratory Disease 702	Alzheimer's Disease 946	Cancer 773
4	Chronic Lower Respiratory Diseases 2,451	Congenital Malformations, Deformations, and Chromosomal Abnormalities 9	Cancer 8	Cancer 24	Chronic Liver Disease and Cirrhosis 80	Chronic Liver Disease and Cirrhosis 158	Chronic Liver Disease and Cirrhosis 231	Unintentional Injuries 249	Diabetes 328	Chronic Lower Respiratory Disease 828	Cerebrovascular Disease 602
5	Alzheimer's Disease 2,247	**	Congenital Malformations, Deformations, and Chromosomal Abnormalities 7	Heart Disease 23	Cancer 73	Suicide 125	Diabetes 151	Diabetes 247	Cerebrovascular Disease 313	Cerebrovascular Disease 713	Chronic Lower Respiratory Disease 420

Note: ** No other cause had at least five deaths.

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

<u>Age</u>

Table 50, on the previous page, lists the five leading causes of death by age group for the last five years combined. Excluding infants, unintentional injuries 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.

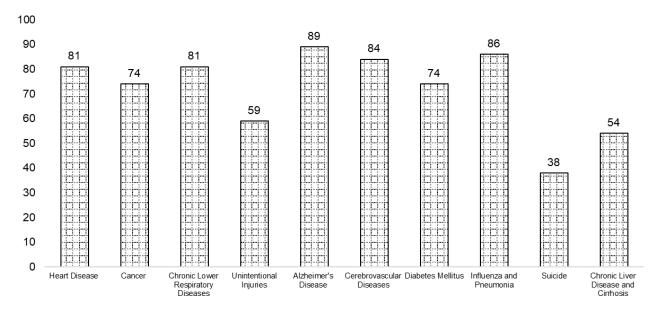
Median Age

Figure 9, below, presents data on the median age at death for the 10 leading causes of death for South Dakota residents in 2019. The median age for

the 10 leading causes of death in 2019 ranged from 38 for suicide to 89 for Alzheimer's Disease.

Figure 9

Median Age at Death for South Dakota Residents for the Leading Causes of Death, 2019



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 57, while white, non-Hispanics have the highest at 80. Males' median age at death is 74, while females is 83.

Table 51

Median Age at Death for South Dakota Residents by Race, Gender and Year of Death, 2015-2019

Year of Death	Total Median Age	White, non- Hispanic	American Indian, non-Hispanic	Male	Female
2019	78	80	57	74	83
2018	79	81	59	75	83
2017	79	81	57	75	83
2016	79	81	58	75	83
2015	80	81	56	76	83

Table 52, below, shows the median age at death for South Dakota residents for the leading causes of death by race and gender. In 2019, the median age at death for white, non-Hispanic residents ranged from 46 for suicide to 89 for Alzheimer's Disease. The range for American Indian, non-Hispanics was 26 for suicides to 72 for chronic lower

respiratory diseases. For males the range in 2019 was 39 for suicide to 86 for Alzheimer's disease. The range for females was 54 for chronic liver disease and cirrhosis to 92 for hypertension.

Table 52

Median Age at Death for South Dakota Residents for the Leading Causes of Death by Race and Gender, 2019

,		Median Age	e at Death in Ye	ears	
	All	Ra	ice	Gei	nder
Cause of Death	Total Deaths	White, non- Hispanic	American Indian, non- Hispanic	Male	Female
South Dakota (All Deaths)	78	80	57	74	83
Heart Disease (I00-I09, I11, I13, I20-I51)	81	82	62	76	87
Cancer (C00-C97)	74	75	66	73	75
Chronic Lower Respiratory Diseases (J40-J47)	81	81	72	80	81
Unintentional Injuries (V01-X59, Y85-Y86)	59	70	33	55	76
Alzheimer's Disease (G30)	89	89	*	86	90
Cerebrovascular Diseases (I60-I69)	84	85	57	81	86
Diabetes (E10-E14)	74	76	60	72	75
Influenza and Pneumonia (J09-J18)	86	87	65	84	89
Suicide (*U03, X60-X84, Y87.0)	38	46	26	39	*
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	54	*	48	54	54
Hypertension (I10 & I12)	*	87	*	*	92
Septicemia (A40-A41)	*	*	57	*	*

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

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

Years of Potential Life Lost

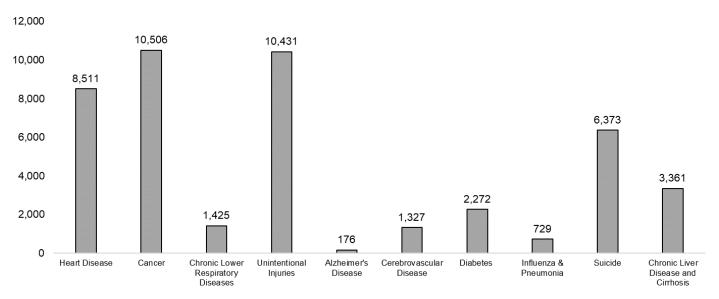
Figure 10, on the next page, depicts the years of potential life lost (YPLL) before age 75 for each of these causes.

In 2019, cancer led in YPLL with 10,506 followed by unintentional injuries with 10,431 years of potential life lost.

^{*}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.

Figure 10
South Dakota Resident Years of Potential Life Lost (YPLL) Before Age 75
for the Leading Causes of Death, 2019



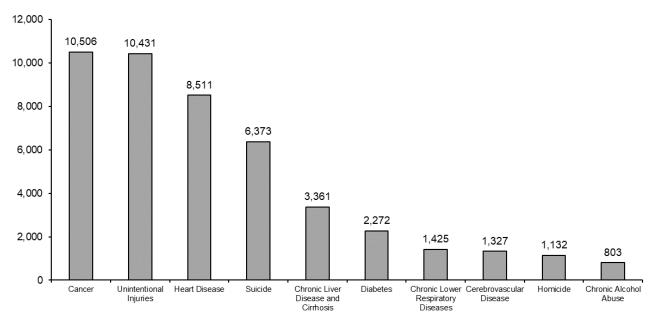
Note: Chart excludes infant deaths.

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, unintentional injuries, and heart disease led in the most YPLL in South Dakota for 2019.

Figure 10a
South Dakota Resident Years of Potential Life Lost (YPLL) Before Age 75 for the Leading Causes of Death (in Descending Order), 2019



Note: Chart excludes infant deaths

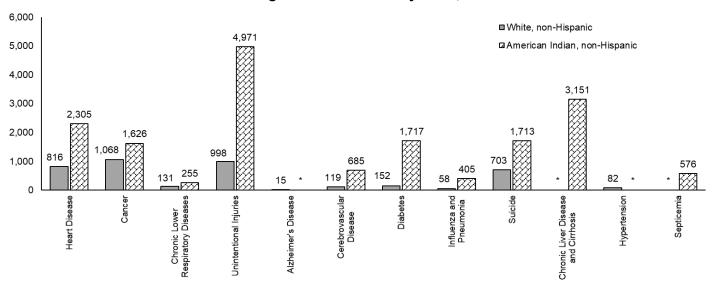
Figure 11, below, illustrates the rate of years of potential life lost (YPLL) before age 75 per 100,000 population for the top 10 causes of death by race. When comparing YPLL rates by race, American Indian, non-Hispanics exceeded white, non-Hispanics substantially for the leading causes of death.

American Indian, non-Hispanics' largest YPLL rate was unintentional injuries with 4,971 while white, non-Hispanics' largest YPLL rate was cancer with 1,068.

White, non-Hispanics' second largest YPLL rate was unintentional injuries with 998 while American Indian, non-Hispanics' second largest YPLL rate was chronic liver disease and cirrhosis with 3,151.

American Indian, non-Hispanics' and white, non-Hispanics' third largest YPLL rate was heart disease with 2,305 and 816, respectively. Cancer was the sixth largest YPLL rate for American Indians, which still exceeded white's largest YPLL.

Figure 11
Age-Adjusted Years of Potential Life Lost (YPLL) Before Age 75 for the Leading Causes of Death by Race, 2019



Note: Years of potential life lost are age-adjusted per 100,000 population.

Place of Death

Table 53, on the next page, displays the 10 leading causes of death by place where death occurred in 2019.

Overall, nursing home, long term care, and hospice facility had the highest occurrence of deaths with 42.2 percent. Hospital followed closely with 31.5 percent.

^{*}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

Table 53
South Dakota Resident Deaths by Cause of Death and Place of Death, 2019

	Tot	eal.	Hosi	oital	Nurs Home/ Ter Care/Ho Faci	Long m ospice	Resid	onco	All C Repo	orted
Cause of Death			Num	%	Num	" %	Num	%	Num	%
South Dakota (All Deaths)	8,273 100 2		2,607	31.5	3,491	42.2	1,771	21.4	356	4.3
Heart Disease (I00-I09, I11, I13, I20-I51)	1,840	100	593	32.2	634	34.5	531	28.9	71	3.9
Cancer (C00-C97)	1,736	100	393	22.6	805	46.4	503	29.0	31	1.8
Chronic Lower Resiratory Diseases (J40-J47)	521	100	162	31.1	247	47.4	105	20.2	5	1.0
Unintentional Injuries (V01-X59, Y85-Y86)	512	100	180	35.2	106	20.7	80	15.6	129	25.2
Alzheimer's Disease (G30)	496	100	40	8.1	420	84.7	33	6.7	3	0.6
Cerebrovascular Diseases (I60-I69)	373	100	150	40.2	194	52.0	25	6.7	3	8.0
Diabetes (E10-E14)	287	100	75	26.1	119	41.5	86	30.0	6	2.1
Influenza and Pneumonia (J09-J18)	189	100	114	60.3	56	29.6	18	9.5	1	0.5
Suicide (*U03, X60-X84, Y87.0)	185	100	22	11.9	2	1.1	104	56.2	54	29.2
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	154	100	77	50.0	39	25.3	31	20.1	7	4.5
All Other Causes	1,980	100	801	40.5	869	43.9	255	12.9	46	2.3

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 1,618 deaths, or 19.6 percent, the certifier indicated "yes" or "probably" that tobacco use contributed to the death. Conversely, on 4,858 deaths, or 58.7 percent, the certifier indicated that tobacco use did not contribute to the death.

In the remaining 1,797 deaths, or 21.7 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 69.5 percent, or 299 out of the 430 trachea, bronchus, and lung cancer deaths in 2019. In 63.5 percent, or 331 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, 2019
(Did Tobacco Use Contribute to Death)

Cause of Death	Yes/Pro	obably	Total	Deaths
	Number	Percent	Number	Percent
Total	1,618	19.6	8,273	100
Cancer (C00-C97)	494	28.5	1,736	100
Trachea, bronchus, and lung cancer (C33-C34)	299	69.5	430	100
Colorectal cancer (C18-C21)	22	14.4	153	100
Bladder cancer (C67)	17	39.5	43	100
Esophagus cancer (C15)	16	29.6	54	100
Heart disease (I00-I09, I11, I13, I20-I51)	359	19.5	1,840	100
Acute myocardial infarction (I21-I22)	138	22.0	627	100
Atherosclerotic heart disease (I25.1)	96	22.5	426	100
Hypertensive heart disease (I11)	26	17.7	147	100
Chronic lower respiratory diseases (J40-J47)	331	63.5	521	100
Chronic obstructive pulmonary disease, unspecified (J44.9)	231	67.0	345	100
Chronic obstructive pulmonary disease with acute lower respiratory infection (J44.0)	51	56.0	91	100
Chronic obstructive pulmonary disease with acute exacerbation, unspecified (J44.1)	25	67.6	37	100
Emphysema (J43)	21	70.0	30	100
Diabetes (E10-E14)	56	19.5	287	100
Cerebrovascular diseases (I60-I69)	52	13.9	373	100
Influenza and pneumonia (J09-J18)	28	14.8	189	100
Pneumonia (J12-J18)	21	13.1	160	100
Chronic liver disease and cirrhosis (K70 & K73-K74)	26	16.9	154	100
Alcoholic liver disease (K70)	24	18.2	132	100
Unintentional injuries (V01-X59, Y85-Y86)	20	3.9	512	100
Alzheimer's disease (G30)	18	3.6	496	100
Chronic alcohol abuse (F10)	16	41.0	39	100

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 86 drug overdose deaths in 2019, up from 58 drug overdose deaths in 2018. Table 55, below that, shows that of the 86 drug

overdose deaths in 2019, 71 deaths were unintentional, 10 deaths were suicides, and five 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, 2005-2019

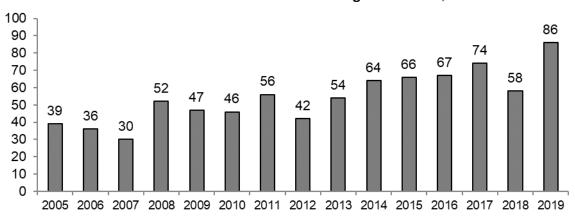
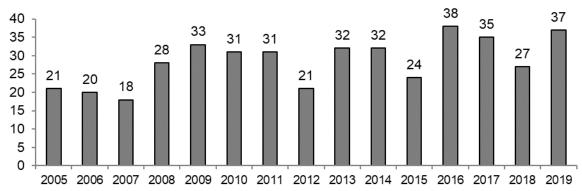


Table 55
South Dakota Resident Deaths Due to Drug Overdose by Manner of Death and Year of Death for All Drugs, 2005-2019

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	39	36	30	52	47	46	56	42	54	64	66	67	74	58	86
Unintentional	18	21	15	30	26	19	41	24	34	46	44	52	54	43	71
Suicide	14	12	8	13	12	16	11	11	15	12	19	12	18	11	10
Homicide	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0
Undetermined Intent	7	3	7	9	8	11	4	7	4	6	3	2	2	4	5

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

Figure 13
South Dakota Resident Deaths Due to All Opioid Poisoning, 2005-2019



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, 2005-2019

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	21	20	18	28	33	31	31	21	32	32	24	38	35	27	37
Unintentional	10	15	9	18	22	15	26	15	21	27	19	31	28	22	32
Suicide	6	3	3	4	6	8	3	2	9	2	4	6	7	3	3
Homicide	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Undetermined Intent	5	2	6	6	4	8	2	4	2	3	1	1	0	2	2

Figure 14
South Dakota Resident Deaths Due to Prescription Opioid
Poisoning, 2005-2019

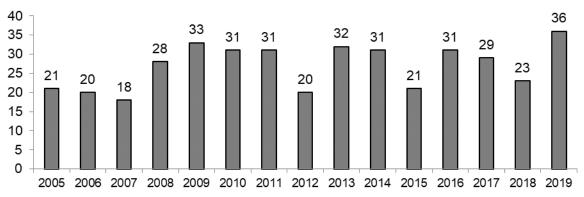
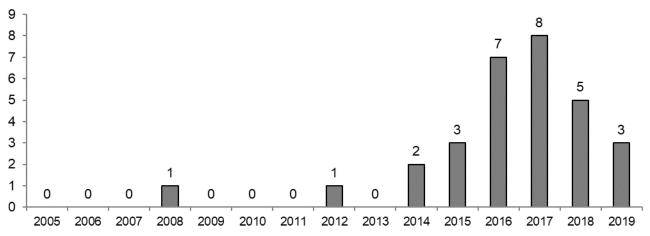


Table 57
South Dakota Resident Deaths Due to Drug Overdose by Manner of Death and Year of Death for Prescription Opioid Poisoning, 2005-2019

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	21	20	18	28	33	31	31	20	32	31	21	31	29	23	36
Unintentional	10	15	9	18	22	15	26	14	21	26	16	24	22	19	31
Suicide	6	3	3	4	6	8	3	2	9	2	4	6	7	3	3
Homicide	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Undetermined Intent	5	2	6	6	4	8	2	4	2	3	1	1	0	1	2

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

Figure 15
South Dakota Resident Deaths Due to Illicit Opioid Poisoning, 2005-2019



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, 2005-2019

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	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	0	0	0	1	0	0	0	1	0	2	3	7	8	5	3
Unintentional	0	0	0	1	0	0	0	1	0	2	3	7	8	4	3
Suicide	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Homicide	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Undetermined Intent	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

Figure 16
South Dakota Resident Deaths Due to All Pharmaceutical Poisoning, 2005-2019

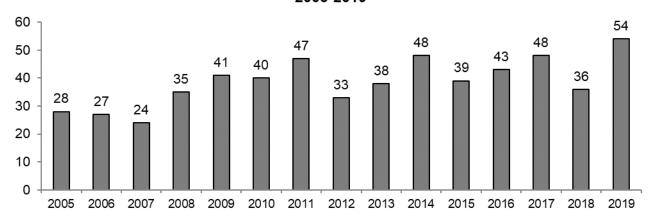
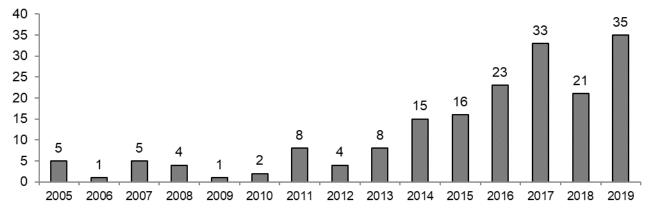


Table 59
South Dakota Resident Deaths Due to Drug Overdose by Manner of Death and Year of
Death for All Pharmaceutical Drug Poisoning, 2005-2019

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	28	27	24	35	41	40	47	33	38	48	39	43	48	36	54
Unintentional	11	16	10	19	22	16	34	18	24	33	24	31	30	23	40
Suicide	11	9	7	8	11	14	10	10	12	9	12	10	17	11	10
Homicide	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
Undetermined Intent	6	2	7	8	7	10	3	5	2	6	3	1	1	2	4

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

Figure 17
South Dakota Resident Deaths Due to Illicit Drug Poisoning, 2005-2019



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, 2005-2019

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	5	1	5	4	1	2	8	4	8	15	16	23	33	21	35
Unintentional	4	0	5	3	1	2	7	3	6	14	16	23	31	19	34
Suicide	0	1	0	0	0	0	1	1	1	1	0	0	1	0	0
Homicide	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Undetermined Intent	1	0	0	1	0	0	0	0	0	0	0	0	1	2	1

The following tables (61 and 62) show the specific drugs involved in drug overdose deaths for 2019 and for the past 10 years. Out of the 86 total drug deaths in 2019, 31 of those involved methamphetamine. Of those 31 deaths, 25 listed methamphetamine as the only drug, while the other six 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, 2019

	Number	Drugs I	of Specific Listed on Certificate
Drugs Involved	of Deaths	Only Drug Involved	Other Drugs Involved
Methamphetamine	31	25	6
Fentanyl (Includes analogs)	23	18	5
Morphine	8	1	7
Cocaine (Benzoylecgonine)	5	2	3
Bupropion (Wellbutrin)	5	4	1
Oxycodone (Oxycontin, Percocet, Percodan)	4	1	3
Heroin	3	1	2
Diphenhydramine	3	1	2
Venlafaxine (Effexor)	3	2	1
Quetiapine (Seroquel)	3	1	2

Note: ICD -10 Codes: X40-X44, X60-X64, X85, Y10-Y14

Table 62 South Dakota Resident Deaths Due to Drug Overdose by Drugs Involved and Year of Death, 2010-2019

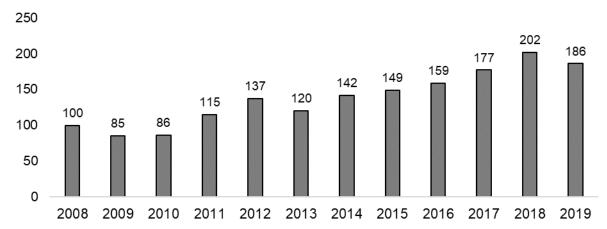
Drugs Involved and Number of		- 10 - 10	. 5				of Death	0. 50	, 		
Specific Drugs on Death Certificate	Total	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Methamphetamine	129	2	4	3	9	14	13	18	22	13	31
Only Drug Involved	89	1	2	3	6	10	10	10	12	10	25
Other Drugs Involved	40	1	2	0	3	4	3	8	10	3	6
Fentanyl (Includes Analogs)	80	4	4	2	2	7	7	7	12	12	23
Only Drug Involved	55	4	3	2	1	4	6	2	6	9	18
Other Drugs Involved	25	0	1	0	1	3	1	5	6	3	5
Oxycodone (Oxycontin, Percocet, Percodan)	66	9	9	3	10	8	2	9	5	7	4
Only Drug Involved	30	4	2	2	6	5	2	2	2	4	1
Other Drugs Involved	36	5	7	1	4	3	0	7	3	3	3
Morphine	63	9	7	6	10	11	1	7	3	1	8
Only Drug Involved	31	7	4	5	5	6	0	2	1	0	1
Other Drugs Involved	32	2	3	1	5	5	1	5	2	1	7
Hydrocodone (Vicodin)	53	5	4	5	9	5	7	10	4	2	2
Only Drug Involved	24	2	2	3	4	2	3	5	2	1	0
Other Drugs Involved	29	3	2	2	5	3	4	5	2	1	2
Methadone (Methadose)	42	8	9	1	2	6	4	4	4	3	1
Only Drug Involved	23	7	4	1	1	3	3	1	1	2	0
Other Drugs Involved	19	1	5	0	1	3	1	3	3	1	1
Heroin	31	0	1	1	0	2	3	8	8	5	3
Only Drug Involved	12	0	0	1	0	0	1	4	3	2	1
Other Drugs Involved	19	0	1	0	0	2	2	4	5	3	2
Cocaine (Benzoylecgonine)	25	0	3	0	0	0	3	3	3	8	5
Only Drug Involved	8 17	0	2	0	0	0	0	3	1	4	2
Other Drugs Involved				0	_	0	3		2	4	
Amitriptyline	24	2	2	4	3	1	1	4	3	2	2
Only Drug Involved	6	0	0	2	2	0	0	0 4	1	0	0
Other Drugs Involved	18	2	_	2		1	1		2	2	2
Diphenhydramine Only Drug Involved	18 10	0	1	1	1	2	4	2	1	2	3
Other Drugs Involved	8	1	0	1	0	0	2	1	0	1	2
Tramadol	17	2	2	3	2	0	2	3	1	0	2
Only Drug Involved	7	1	1	2	1	0	1	0	0	0	1
Other Drugs Involved	10	1	1	1	1	0	1	3	1	0	1
Quetiapine (Seroquel)	17	5	0	1	0	0	0	3	4	1	3
Only Drug Involved	6	1	0	1	0	0	0	1	1	1	1
Other Drugs Involved	11	4	0	0	0	0	0	2	3	0	2
Bupropion (Wellbutrin)	15	0	1	0	0	2	0	1	3	3	5
Only Drug Involved	10	0	1	0	0	2	0	0	1	2	4
Other Drugs Involved	5	0	0	0	0	0	0	1	2	1	1
Alprazolam (Xanax)	14	1	3	2	2	1	0	1	0	3	1
Only Drug Involved	3	0	0	1	1	1	0	0	0	0	0
Other Drugs Involved	11	1	3	1	1	0	0	1	0	3	1
Acetaminophen (Darvocet, Excedrin, Percocet, Tylenol, Vicodin)	14	1	4	0	1	2	3	2	1	0	0
Only Drug Involved	5	0	1	0	0	2	2	0	0	0	0
Other Drugs Involved	9	1	3	0	1	0	1	2	1	0	0
Citalopram (Celexa)	13	1	1	1	2	3	0	0	2	1	2
Only Drug Involved	1	0	0	1	0	0	0	0	0	0	0
Other Drugs Involved	12	1	1	0	2	3	0	0	2	1	2
Duloxetine (Cymbalta)	10	1	0	0	2	0	1	1	2	2	1
Only Drug Involved	0	0	0	0	0	0	0	0	0	0	0
Other Drugs Involved	10	1	0	0	2	0	1	1	2	2	1
Codeine	10	0	1	1	2	0	0	3	2	0	1
Only Drug Involved	1	0	0	1	0	0	0	0	0	0	0
Other Drugs Involved Note: ICD-10 CODES X40-X44 X60-X64	9	0	1	0	2	0	0	3	2	0	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 alcoholinduced deaths for South Dakota residents for the past 12 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, 2008-2019



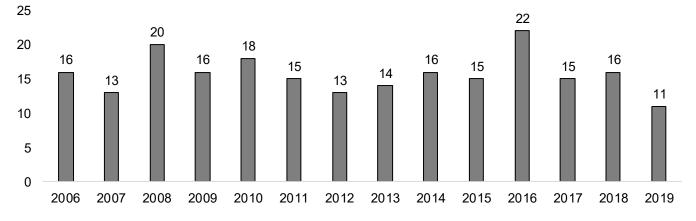
Source: South Dakota Department of Health, Office of Health Statistics

Farm Accident Deaths

Figure 19, below, shows the number of South Dakota resident deaths due to farm accidents for the past 14 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, 2006-2019



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 nine

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

Table 63
South Dakota Resident Deaths Occurring in South Dakota to Women Who Were Pregnant at the Time of Death or Within One Year After Delivery, 2011-2019

Year	Any Death While Pregnant, or Within One Year After Delivery	Pregnancy-Related	Pregnancy Associated, But Not Pregnancy-Related
2019	6	*	*
2018	8	*	*
2017	5	1	4
2016	6	2	4
2015	5	2	3
2014	5	1	4
2013	6	1	5
2012	6	1	5
2011	8	3	5

Note: <u>Pregnancy-related</u>: 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 2017.

<u>Pregnancy-associated, but not pregnancy-related</u>: 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 2017.

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, 2010-2019

	Total		N	lanner of Death		
Year	Firearm Deaths	Accident	Suicide	Homicide	Legal Intervention	Undetermined Intent
2019	113	0	101	10	2	0
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

Method of Disposition

Table 65, below, displays the different methods of disposition for the last 13 years. The top disposition in 2019 was burial with 3,920 deaths. The second highest method of

disposition in 2019 was cremation with 3,853 deaths. Since 2007, cremation has increased from 21.7 percent of all dispositions to 46.6 percent in 2019.

Table 65
South Dakota Resident Deaths by Disposition, 2007-2019

					Туре	of Dispo	sition				
Year	Total	Ві	urial	Crer	nation		val from tate	Dor	ation	Entor	nbment
	Deaths	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
2019	8,273	3,920	47.4	3,853	46.6	450	5.4	39	0.5	11	0.1
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

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 2010 to 2019.

The crude and age-adjusted rates for all causes in 2019 were 935.2 and 739.6 respectively, which are up from the crude and age-adjusted rates in 2018 of 903.5 and 715.7, respectively.

Table 66a
South Dakota Resident Deaths for 15 Leading Causes and Selected Components, 2010-2019

South Dakota Resident Dea	10.	10 200	unig o		Number (101110, 2		
Cause of Death	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
All Causes	7,087	7,271	7,283	7,079	7,500	7,724	7,838	7,991	7,971	8,273
Heart Disease	1,611	1,615	1,652	1,617	1,695	1,712	1,732	1,708	1,797	1,840
Cancer	1,651	1,656	1,623	1,574	1,679	1,632	1,691	1,717	1,632	1,736
Trachea, Bronchus, and Lung	434	457	434	416	439	424	420	421	396	430
Colon, Rectum, and Anus	168	137	166	169	186	168	163	158	169	153
Pancreas	98	95	105	109	118	109	128	124	116	142
Female Breast	103	122	107	108	100	104	109	102	112	106
Prostate	96	88	75	76	75	90	107	71	92	86
Leukemia	82	77	68	89	90	66	61	62	58	73
Chronic Lower Respiratory Diseases	451	485	479	413	440	500	427	505	498	521
Unintentional Injuries	391	407	417	424	461	467	503	537	452	512
Motor Vehicle Accidents	141	99	142	149	151	143	135	166	156	130
Alzheimer's Disease	401	423	462	420	433	421	449	444	437	496
Cerebrovascular Diseases	411	442	410	414	439	381	420	410	387	373
Diabetes	241	267	219	239	223	282	253	262	252	287
Influenza and Pneumonia	166	178	188	186	180	213	195	217	246	189
Suicide	139	125	135	147	141	173	161	192	168	185
Chronic Liver Disease and Cirrhosis	83	98	113	121	128	137	158	152	185	154
Hypertension	93	94	78	72	95	103	92	102	113	126
Septicemia	66	69	64	74	81	119	81	100	117	121
Parkinson's Disease	85	73	53	78	63	80	86	89	104	91
Unspecified Dementia	91	117	111	99	120	126	121	105	133	82
Kidney Disease	72	49	57	62	72	79	92	75	71	72

Table 66b South Dakota Resident Crude Death Rates for 15 Leading Causes and Selected Components, 2010-2019

		•	Officials		rude De	ath Rates	5			
Cause of Death	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
All Causes	870.4	882.3	873.9	837.9	879.1	899.7	905.7	918.9	903.5	935.2
Heart Disease	197.9	196.0	198.2	191.4	198.7	199.4	200.1	196.4	203.7	208.0
Cancer	202.8	201.0	194.8	186.3	196.8	190.1	195.4	197.4	185.0	196.2
Trachea, Bronchus, and Lung	53.3	55.5	52.1	49.2	51.5	49.4	48.5	48.4	44.9	48.2
Colon, Rectum, and Anus	20.6	16.6	19.9	20.0	21.8	19.6	18.8	18.2	19.2	17.3
Pancreas	12.0	11.5	12.6	12.9	13.8	12.7	14.8	14.3	13.1	16.1
Female Breast	25.3	29.7	25.8	25.7	23.6	24.4	25.4	23.7	25.6	24.2
Prostate	23.6	21.3	17.9	17.9	17.5	20.8	24.5	16.2	20.6	19.2
Leukemia	10.1	9.3	8.2	10.5	10.5	7.7	7.0	7.1	6.6	8.3
Chronic Lower Respiratory Diseases	55.4	58.9	57.5	48.9	51.6	58.2	49.3	58.1	56.4	58.9
Unintentional Injuries	48.0	49.4	50.0	50.2	54.0	54.4	58.1	61.7	51.2	57.9
Motor Vehicle Accidents	17.3	12.0	17.0	17.6	17.7	16.7	15.6	19.1	17.7	14.7
Alzheimer's Disease	49.3	51.3	55.4	49.7	50.8	49.0	51.9	51.1	49.5	56.1
Cerebrovascular Diseases	50.5	53.6	49.2	49.0	51.5	44.4	48.5	47.1	43.9	42.2
Diabetes	29.6	32.4	26.3	28.3	26.1	32.8	29.2	30.1	28.6	32.4
Influenza and Pneumonia	20.4	21.6	22.6	22.0	21.1	24.8	22.5	25.0	27.9	21.4
Suicide	17.1	15.2	16.2	17.4	16.5	20.2	18.6	22.1	19.0	20.9
Chronic Liver Disease and Cirrhosis	10.2	11.9	13.6	14.3	15.0	16.0	18.3	17.5	21.0	17.4
Hypertension	11.4	11.4	9.4	8.5	11.1	12.0	10.6	11.7	12.8	14.2
Septicemia	8.1	8.4	7.7	8.8	9.5	13.9	9.4	11.5	13.3	13.7
Parkinson's Disease	10.4	8.9	6.4	9.2	7.4	9.3	9.9	10.2	11.8	10.3
Unspecified Dementia	11.2	14.2	13.3	11.7	14.1	14.7	14.0	12.1	15.1	9.3
Kidney Disease	8.8	5.9	6.8	7.3	8.4	9.2	10.6	8.6	8.0	8.1

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, 2010-2019

				Age-	Adjusted	d Death F	Rates			
Cause of Death	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
All Causes	713.4	716.1	706.8	677.4	709.9	714.9	718.6	736.1	715.7	739.6
Heart Disease	154.9	153.0	153.8	148.8	153.6	151.0	153.7	150.0	156.2	158.1
Cancer	170.6	168.6	162.2	154.3	161.4	153.3	156.6	157.0	145.2	153.3
Trachea, Bronchus, and Lung	45.4	47.2	43.5	41.0	41.8	39.7	38.2	38.2	35.3	37.2
Colon, Rectum, and Anus	17.0	13.9	16.4	16.7	17.6	15.7	15.2	14.2	15.2	13.7
Pancreas	10.2	9.5	10.6	10.7	11.1	10.3	11.6	11.5	10.0	12.3
Female Breast	19.7	23.7	19.5	19.3	17.9	18.7	19.3	17.3	20.0	17.9
Prostate	23.7	20.9	17.7	17.0	16.7	19.6	23.1	15.7	19.0	17.5
Leukemia	8.6	7.8	7.3	9.0	8.8	6.2	5.6	5.5	5.1	6.7
Chronic Lower Respiratory Diseases	46.0	47.4	45.4	39.1	40.7	45.1	38.5	45.4	43.7	45.1
Unintentional Injuries	44.3	44.8	46.6	46.4	49.2	49.3	53.1	56.2	46.5	52.8
Motor Vehicle Accidents	17.0	11.8	17.1	17.4	17.5	16.3	15.8	19.0	17.3	14.6
Alzheimer's Disease	36.2	36.6	39.6	35.1	36.1	34.8	37.1	36.9	36.3	40.6
Cerebrovascular Diseases	39.2	42.0	37.6	37.5	38.8	33.0	35.8	36.3	33.3	32.3
Diabetes	24.6	26.8	21.6	22.9	21.2	26.3	23.6	24.8	23.3	26.8
Influenza and Pneumonia	15.5	16.3	16.9	16.4	16.1	18.3	16.7	19.0	20.8	16.0
Suicide	17.3	15.3	16.1	18.0	17.1	20.4	19.9	22.7	19.4	21.2
Chronic Liver Disease and Cirrhosis	9.7	11.1	13.3	13.3	16.0	15.9	16.4	17.0	19.7	17.1
Hypertension	8.8	8.5	6.8	6.3	8.1	8.7	7.9	8.7	9.4	10.6
Septicemia	6.7	7.0	6.2	7.2	8.1	11.0	7.5	9.4	10.5	10.9
Parkinson's Disease	8.2	7.0	5.1	7.3	6.3	7.2	7.6	8.1	9.5	7.9
Unspecified Dementia	8.3	10.2	9.4	8.4	10.1	10.5	9.6	8.6	10.6	6.6
Kidney Disease	7.1	4.5	5.5	5.7	6.5	7.4	7.8	6.8	6.8	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 2019. 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, 2010-2019

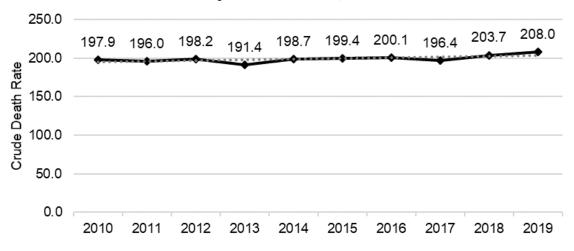


Figure 21
South Dakota Resident Crude Death Rate Due to Cancer
by Year of Death, 2010-2019

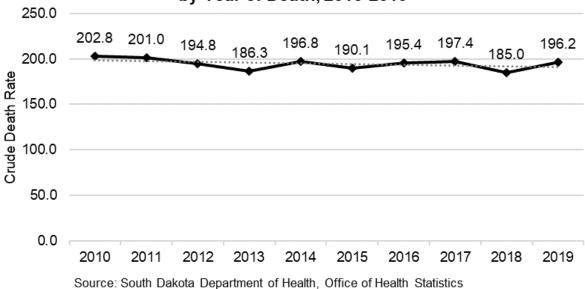


Figure 21a
South Dakota Resident Crude Death Rate Due to Trachea,
Bronchus, and Lung Cancer by Year of Death, 2010-2019

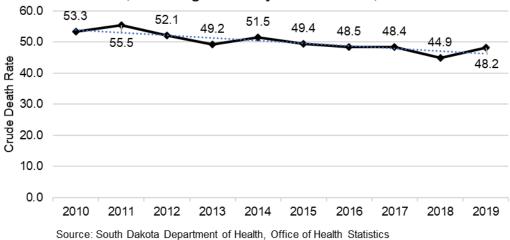


Figure 21b South Dakota Resident Crude Death Rate Due to Colon, Rectum, and Anus Cancer by Year of Death, 2010-2019

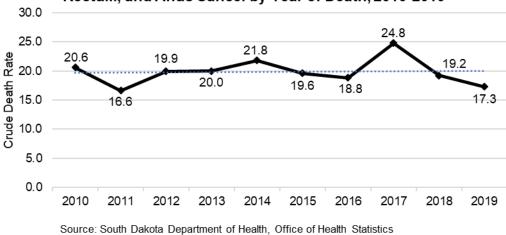


Figure 21c
South Dakota Resident Crude Death Rate Due to Pancreas
Cancer by Year of Death, 2010-2019

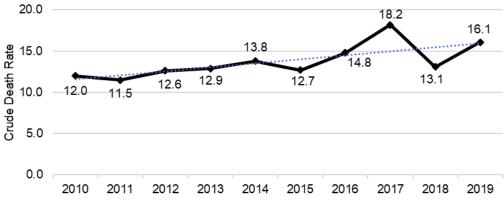


Figure 21d
South Dakota Resident Crude Death Rate Due to Female
Breast Cancer by Year of Death, 2010-2019

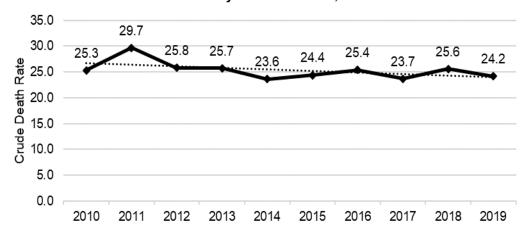
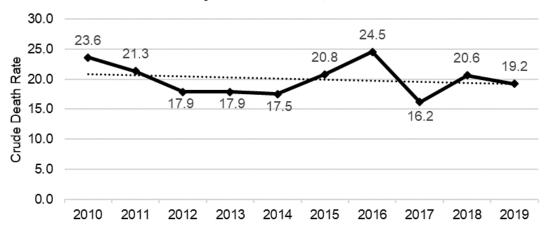


Figure 21e South Dakota Resident Crude Death Rate Due to Prostate Cancer by Year of Death, 2010-2019



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, 2010-2019

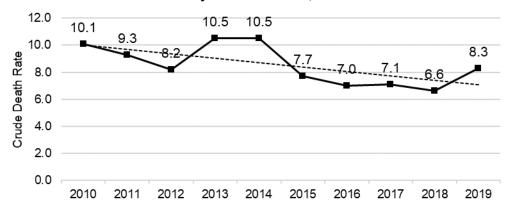


Figure 22 South Dakota Resident Crude Death Rate Due to Chronic Lower Respiratory Disease by Year of Death, 2010-2019

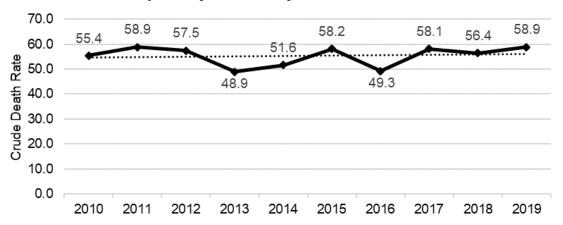
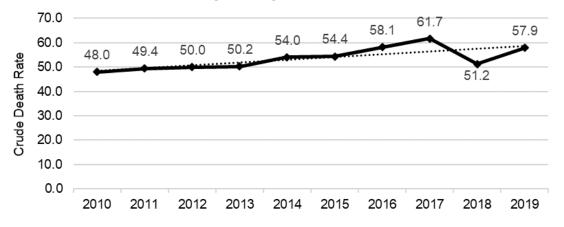


Figure 23
South Dakota Resident Crude Death Rate Due to
Unintentional Injuries by Year of Death, 2010-2019



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, 2010-2019

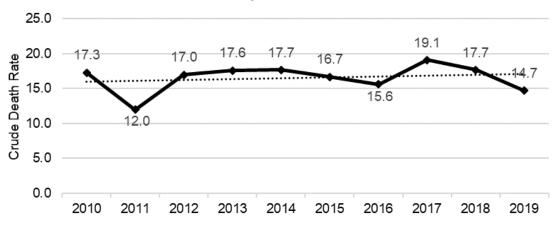


Figure 24 South Dakota Resident Crude Death Rate Due to Alzheimer's Disease by Year of Death, 2010-2019

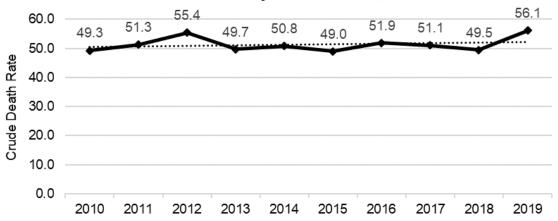
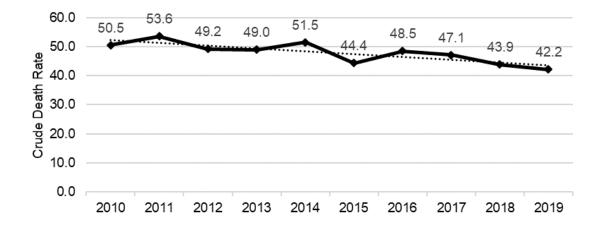


Figure 25
South Dakota Resident Crude Death Rate Due to
Cerebrovascular Disease by Year of Death, 2010-2019



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

Figure 26
South Dakota Resident Crude Death Rate Due to
Diabetes by Year of Death, 2010-2019

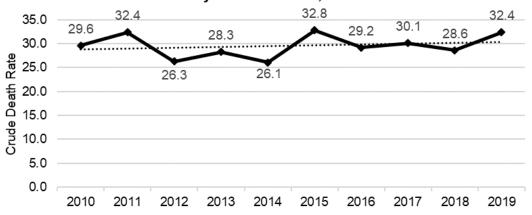


Figure 27
South Dakota Resident Crude Death Rate Due to Influenza and Pneumonia by Year of Death, 2010-2019

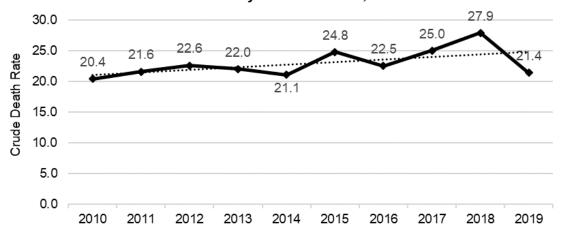
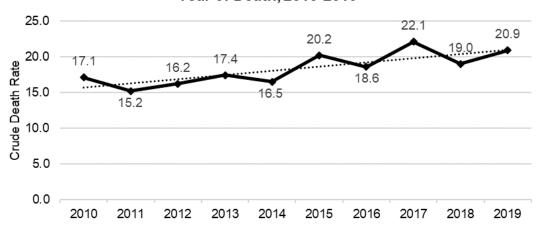


Figure 28
South Dakota Resident Crude Death Rate Due to Suicide by
Year of Death, 2010-2019



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

Figure 29
South Dakota Resident Crude Death Rate Due to Chronic
Liver Disease and Cirrhosis by Year of Death, 2010-2019

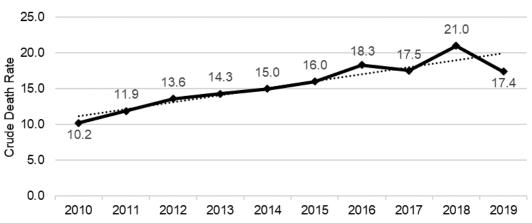


Figure 30
South Dakota Resident Crude Death Rate Due to
Hypertension by Year of Death, 2010-2019

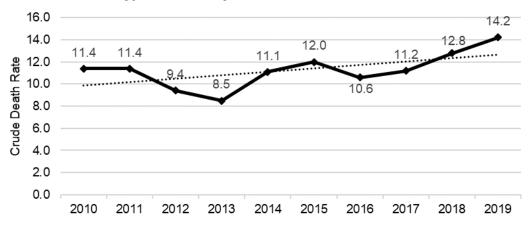
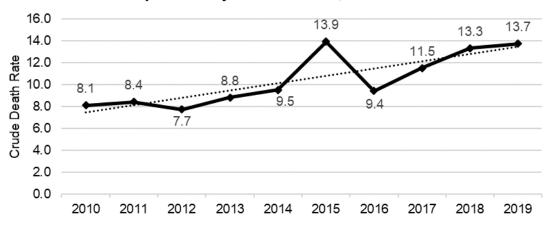


Figure 31
South Dakota Resident Crude Death Rate Due to
Septicemia by Year of Death, 2010-2019



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

Figure 32 South Dakota Resident Crude Death Rate Due to Parkinson's Disease by Year of Death, 2010-2019

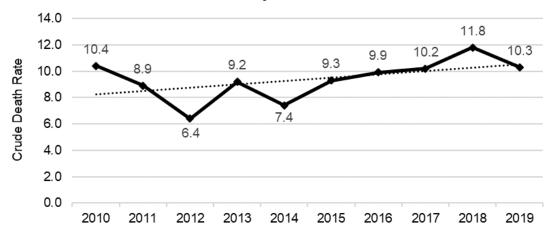


Figure 33
South Dakota Resident Crude Death Rate Due to Unspecified
Dementia by Year of Death, 2010-2019

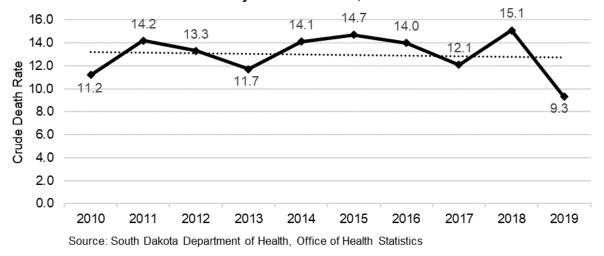
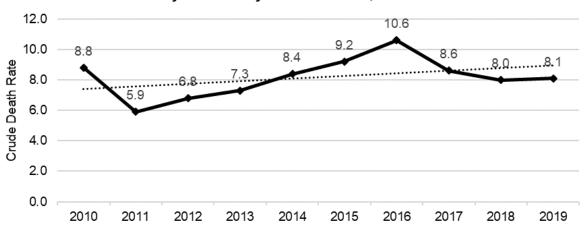


Figure 34
South Dakota Resident Crude Death Rate Due to
Kidney Disease by Year of Death, 2010-2019





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