

Mortality

An Overview: 2013	
Total South Dakota Resident Deaths	7,079
Crude Death Rates per 100,000 Population	
South Dakota	837.9
United States (Provisional)	NA
Age-Adjusted Death Rates per 100,000 Population	
South Dakota	677.4
United States (Provisional)	NA
Age-Adjusted YPLL Before Age 75 per 100,000 Population	
Whites	5,296
American Indians	18,687

Beginning with the 2010 data, race is now 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. Race is no longer allocated as it had been since the 2000 Census started allowing multiple races to be reported. All race data in this section are now categorized in the following manner:

- Single-race White
- Single-race American Indian

The remaining categories (Single-race Black, Single-race Asian, Single-race Pacific Islander, and Two or more races) are included in the totals, but are not shown specifically in any tables.

Table 43, below, displays the deaths, crude death rates, and age-adjusted death rates for the United States and South Dakota for the past 14 years.

Table 43
Resident Deaths, Crude Death Rates, and Age-Adjusted Death Rates, South Dakota and United States, 2000-2013

Year	United States			South Dakota		
	Number	Crude Rate	Age-Adjusted Rate	Number	Crude Rate	Age-Adjusted Rate
2013	**NA	**NA	**NA	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
2001	2,416,425	848.5	854.5	6,915	911.1	786.2
2000	2,403,351	854.0	869.0	7,014	929.2	804.8

Note: **U.S. 2013 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

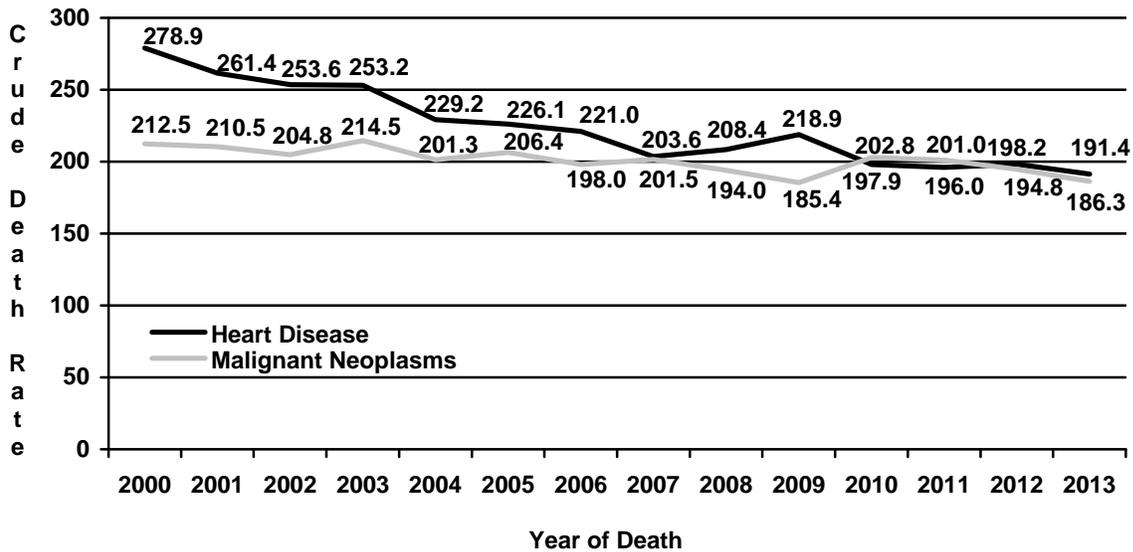
The five leading causes of death in 2013 for South Dakota residents were heart disease, cancer, accidents, Alzheimer’s disease and cerebrovascular disease.

Acute myocardial infarction was the leading cause of heart disease deaths during the year, accounting for 36.2 percent of heart disease deaths.

Heart disease remained the leading cause of death in South Dakota accounting for 22.8 percent of South Dakota’s 2013 resident deaths. This is an increase of less than one percent from 2012. Heart disease was the leading cause of death for whites, males, and females but cancer was the leading cause of death for American Indians.

Figure 8, below, compares the crude death rates of South Dakota resident heart disease and cancer since 2000. Over the past four years, the crude death rates for both heart disease and cancer have been decreasing.

Figure 8
South Dakota Resident Crude Death Rate Due to Malignant Neoplasms And Heart Disease by Year of Death, 2000-2013



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

Cancer was the second leading cause of death in 2013 and accounted for 22.2 percent of South Dakota resident deaths, a 0.4 percent decrease from 2012.

Alzheimer’s disease accounted for 5.9 percent of 2013 South Dakota resident deaths, a decrease of 6.3 percent from 2012.

Accidents moved up to the third leading cause of death and accounted for 6.0 percent of 2013 South Dakota resident deaths, an increase of 5.3 percent from 2012. Motor vehicle accidents accounted for 35.1 percent of accidental deaths.

Cerebrovascular disease caused 5.8 percent of all South Dakota resident deaths in 2013, an increase of 3.6 percent from 2012.

Table 44, below, displays the breakdown of accidental deaths, which were the third leading cause of deaths among South Dakotans. In 2013, 424 or 6.0 percent of deaths were due to accidents.

The highest type of motor vehicle death in 2013 was car occupant with 76 deaths. The highest death in the other causes of accidental death in 2013 was falls with 146 deaths.

**Table 44
South Dakota Resident Leading Causes of Death Due to Accidents, 2009-2013**

	Total	Year of Death				
		2009	2010	2011	2012	2013
Total Deaths	1,987	348	391	407	417	424
Motor Vehicle Accidents	664	133	141	99	142	149
Car Occupant (V40-V49)	356	84	71	52	73	76
Occupant of Pick-Up Truck or Van (V50-V59)	109	16	24	20	24	25
Motorcycle Rider (V20-V29)	58	12	13	5	14	14
Pedestrian (V01-V09)	57	6	14	13	8	16
Occupant of Special All-Terrain Vehicle (V86)	30	4	7	3	11	5
Occupant of Heavy Transport Vehicle (V60-V69)	6	1	3	0	1	1
All Other Motor Vehicle Accidents	48	10	9	6	11	12
Other Causes of Accidental Death	1,323	215	250	308	275	275
Falls (W00-W19)	667	102	130	146	143	146
Accidental Poisoning (X40-X49)	206	34	31	55	42	44
Accidental Threats to Breathing (excl. drowning) (W75-W84)	94	16	14	17	18	29
Exposure to Smoke, Fire, and Flames (X00-X09)	63	11	9	11	22	10
Accidental Drowning and Submersion (W65-W74, V90, V92)	56	8	11	13	13	11
Exposure to Excessive Natural Cold (X31)	51	8	13	15	6	9
Air Transport Accidents (V95.0-V95.3, V95.8-V95.9, & V96-V97)	18	3	3	9	2	1
Accidental Discharge of Firearms (W32-W34)	13	4	4	2	2	1
Contact with Agricultural Machinery (W30)	10	0	2	3	3	2
All Other Causes of Accidents	145	29	33	37	24	22

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

Table 45, on the next page, lists South Dakota resident leading causes of death for the last five years. Heart disease and cancer have been the first and second cause of death for the past five years. Heart disease was again the leading cause of death in South Dakota with cancer coming in a close second with 43 fewer deaths.

Accidents jumped from fifth place in 2012 to third place in 2013. Prior to 2012, accidents were the sixth leading cause of death for the years 2009-2011.

In 2013, causes four, five and six were Alzheimer's disease, cerebrovascular disease and chronic lower respiratory disease.

Causes seven, eight and nine have remained the same for the past five years with diabetes mellitus, influenza and pneumonia and intentional self-harm (suicide), respectively.

Chronic liver disease and cirrhosis was again the tenth leading cause of death for 2013.

Table 45
South Dakota Resident Leading Causes of Death, 2009-2013

Cause of Death	Total			2009			2010			2011			2012			2013		
	Rank	Deaths	%	Rank	Deaths	%	Rank	Deaths	%	Rank	Deaths	%	Rank	Deaths	%	Rank	Deaths	%
South Dakota (All Deaths)		35,633	100		6,913	100		7,087	100		7,271	100		7,283	100		7,079	100
Heart Disease (I00-I09, I11, I13, I20-I51)	1	8,273	23.2	1	1,778	25.7	2	1,611	22.7	2	1,615	22.2	1	1,652	22.7	1	1,617	22.8
Malignant Neoplasms (Cancer) (C00-C97)	2	8,010	22.5	2	1,506	21.8	1	1,651	23.3	1	1,656	22.8	2	1,623	22.3	2	1,574	22.2
Chronic Lower Respiratory Diseases (J40-J47)	3	2,268	6.4	3	440	6.4	3	451	6.4	3	485	6.7	3	479	6.6	6	413	5.8
Alzheimer's Disease (G30)	4	2,108	5.9	5	402	5.8	5	401	5.7	5	423	5.8	4	462	6.3	4	420	5.9
Cerebrovascular Diseases (I60-I69)	5	2,094	5.9	4	417	6.0	4	411	5.8	4	442	6.1	6	410	5.6	5	414	5.8
Accidents (V01-X59, Y85-Y86)	6	1,987	5.6	6	348	5.0	6	391	5.5	6	407	5.6	5	417	5.7	3	424	6.0
Diabetes Mellitus (E10-E14)	7	1,166	3.3	7	200	2.9	7	241	3.4	7	267	3.7	7	219	3.0	7	239	3.4
Influenza and Pneumonia (J09-J18)	8	853	2.4	8	135	2.0	8	166	2.3	8	178	2.4	8	188	2.6	8	186	2.6
Intentional Self-Harm (Suicide) (*U03, X60-X84, Y87.0)	9	674	1.9	9	128	1.9	9	139	2.0	9	125	1.7	9	135	1.9	9	147	2.1
Unspecified Dementia (F03)	10	508	1.4	*	*	*	*	*	*	10	117	1.6	*	*	*	*	*	*
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	*	*	*	*	*	*	*	*	*	*	*	*	10	113	1.6	10	121	1.7
Essential (Primary) Hypertension and Hypertensive Renal Disease (I10 & I12)	*	*	*	*	*	*	10	93	1.3	*	*	*	*	*	*	*	*	*
Nephritis, Nephrotic Syndrome, and Nephrosis (N00-N07, N17-N19, N25-N27)	*	*	*	10	99	1.4	*	*	*	*	*	*	*	*	*	*	*	*
All Other Causes		7,692	21.6		1,460	21.1		1,532	21.6		1,556	21.4		1,585	21.8		1,524	21.5

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 ten leading causes of death for that year.

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 46, below, presents South Dakota resident leading causes of death by race. In 2013, patterns for the 10 leading causes of death varied by race. Eight of the 10 leading causes were the same for whites and American Indians, but they differed by rank. For example, accidents are the sixth leading cause of death at 5.3 percent for the white population, but the third leading cause of death for the American Indian population at 12.8 percent.

Alzheimer's disease was in the 10 leading causes of death for the white population, but not the American Indian population. Among the 10 leading causes of death for the American Indian population, but not for the white population were chronic liver disease and cirrhosis and assault (homicide).

Table 46
South Dakota Resident Leading Causes of Death by Race, 2013

Cause of Death	All Races			White			American Indian		
	Rank	Deaths	%	Rank	Deaths	%	Rank	Deaths	%
South Dakota (All Deaths)		7,079	100		6,385	100		572	100
Heart Disease (I00-I09, I11, I13, I20-I51)	1	1,617	22.8	1	1,506	23.6	2	84	14.7
Malignant Neoplasms (Cancer) (C00-C97)	2	1,574	22.2	2	1,461	22.9	1	89	15.6
Accidents (V01-X59, Y85-Y86)	3	424	6.0	6	338	5.3	3	73	12.8
Alzheimer's Disease (G30)	4	420	5.9	3	411	6.4	*	*	*
Cerebrovascular Diseases (I60-I69)	5	414	5.8	5	385	6.0	T6	21	3.7
Chronic Lower Respiratory Diseases (J40-J47)	6	413	5.8	4	398	6.2	T8	15	2.6
Diabetes Mellitus (E10-E14)	7	239	3.4	7	197	3.1	5	39	6.8
Influenza and Pneumonia (J09-J18)	8	186	2.6	8	169	2.6	T8	15	2.6
Intentional Self-Harm (Suicide) (*U03, X60-X84, Y87.0)	9	147	2.1	9	121	1.9	T6	21	3.7
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	10	121	1.7	*	*	*	4	55	9.6
Unspecified Dementia (F03)	*	*	*	10	97	1.5	*	*	*
Assault (Homicide) (X85-Y09, Y87.1)	*	*	*	*	*	*	10	12	2.1
All Other Causes	-	1,524	21.5	-	1,302	20.4	-	148	25.9

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 ten 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

Gender

In 2013, patterns for the 10 leading causes of death also varied by gender in South Dakota as displayed in Table 47, on the next page. Nine of the 10 leading causes were the same for South Dakota's men and women, but they

differed in rank. Intentional self-harm (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.

In 2013, both males and females top two leading causes of death were heart disease and cancer. Previously in 2012, males' leading cause of death was cancer while females' was heart disease.

Table 47
South Dakota Resident Leading Causes of Death by Gender, 2013

Cause of Death	Total			Male			Female		
	Rank	Deaths	Percent	Rank	Deaths	Percent	Rank	Deaths	Percent
South Dakota (All Deaths)		7,079	100		3,590	100		3,489	100
Heart Disease (I00-I09, I11, I13, I20-I51)	1	1,617	22.8	1	871	24.3	1	746	21.4
Malignant Neoplasms (Cancer) (C00- C97)	2	1,574	22.2	2	840	23.4	2	734	21.0
Accidents (V01-X59, Y85-Y86)	3	424	6.0	3	264	7.4	6	160	4.6
Alzheimer's Disease (G30)	4	420	5.9	6	130	3.6	3	290	8.3
Cerebrovascular Diseases (I60-I69)	5	414	5.8	5	164	4.6	4	250	7.2
Chronic Lower Respiratory Diseases (J40-J47)	6	413	5.8	4	208	5.8	5	205	5.9
Diabetes Mellitus (E10-E14)	7	239	3.4	8	111	3.1	7	128	3.7
Influenza and Pneumonia (J09-J18)	8	186	2.6	9	76	2.1	8	110	3.2
Intentional Self-Harm (Suicide) (*U03, X60-X84, Y87.0)	9	147	2.1	7	124	3.5	*	*	*
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	10	121	1.7	10	75	2.1	T10	46	1.3
Septicemia (A40-A41)	*	*	*	*	*	*	T10	46	1.3
Unspecified Dementia (F03)	*	*	*	*	*	*	9	70	2.0
All Other Causes	-	1,524	21.5		727	20.3		750	21.5

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 ten leading causes of death for this 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

Age

Table 48, on the next page, lists the five leading causes of death by age group. Excluding infants, accidents were the leading cause of death for South Dakotans through age 44.

The leading cause of death for persons 45-84 was cancer. Heart disease was the leading cause of death for persons aged 85 and older.

Table 48
South Dakota Resident Five Leading Causes of Death by Age Group, 2013

Rank	All Ages	1-24	25-34	35-44	45-54	55-64	65-74	75-84	85-94	95 & Over
1	Heart Disease 1,617	Accidents 48	Accidents 51	Accidents 39	Malignant Neoplasms (Cancer) 114	Malignant Neoplasms (Cancer) 277	Malignant Neoplasms (Cancer) 374	Malignant Neoplasms (Cancer) 455	Heart Disease 559	Heart Disease 164
2	Malignant Neoplasms (Cancer) 1,574	Intentional Self-Harm (Suicide) 38	Intentional Self-Harm (Suicide) 20	Heart Disease 29	Heart Disease 62	Heart Disease 171	Heart Disease 243	Heart Disease 379	Malignant Neoplasms (Cancer) 286	Alzheimer's Disease 74
3	Accidents 424	Malignant Neoplasms (Cancer) 11	*	Intentional Self-Harm (Suicide) 28	Accidents 48	Chronic Liver Disease and Cirrhosis 40	Chronic Lower Respiratory Diseases 87	Chronic Lower Respiratory Diseases 134	Alzheimer's Disease 241	Cerebrovascular Diseases 40
4	Alzheimer's Disease 420	Assault (homicide) 10	*	Malignant Neoplasms (Cancer) 24	Chronic Liver Disease and Cirrhosis 36	#	Cerebrovascular Diseases 46	Cerebrovascular Diseases 106	Cerebrovascular Diseases 185	Influenza and Pneumonia 38
5	Cerebrovascular Diseases 414	Heart Disease 7	**	Chronic Liver Disease and Cirrhosis 15	Intentional Self-Harm (Suicide) 29	Chronic Lower Respiratory Diseases 35	Diabetes Mellitus 45	Alzheimer's Disease 83	Chronic Lower Respiratory Diseases 127	Malignant Neoplasms (Cancer) 29

* Note: The following causes tied for third place with 4 deaths: Chronic Liver Disease and Cirrhosis and Malignant Neoplasms (Cancer)

**The following causes tied for fifth place with 3 deaths: Assault (homicide), Cerebrovascular diseases, Heart disease

#The following causes tied for fourth place with 38 deaths: Diabetes Mellitus and Accidents

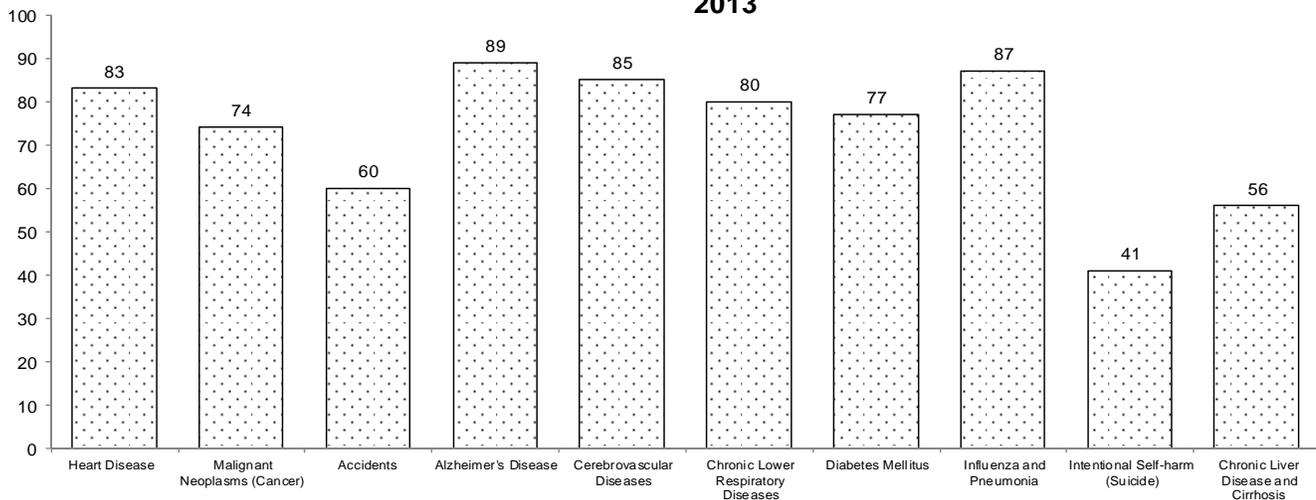
Source: South Dakota Department of Health, Office of Health Statistics

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 2013. The median age for

the 10 leading causes of death in 2013 remained quite similar to the median ages of death in 2012.

Figure 9
Median Age at Death for South Dakota Residents for the Leading Causes of Death, 2013



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

Table 49, below, shows the median age at death for South Dakota residents from the leading causes of death by race and gender. In 2013, the median age at death was 80 for all South Dakotans; for white residents the median age was 81, compared to 59 for American Indians. The overall median age at death decreased for whites and increased for

American Indians when compared to their overall median age at death in 2012. The median age at death in 2013 for South Dakota resident males and females was 75 and 83, respectively. For males, the median age at death decreased while females median age at death went unchanged from 2012 to 2013.

Table 49
Median Age at Death for South Dakota Residents for the Leading Causes of Death by Race and Gender, 2013

Cause of Death	Median Age at Death in Years				
	All	Race		Gender	
	Total Deaths	White	American Indian	Male	Female
South Dakota (All Deaths)	80	81	59	75	83
Heart Disease (I00-I09, I11, I13, I20-I51)	83	84	67	78	87
Malignant Neoplasms (Cancer) (C00-C97)	74	75	67	72	76
Accidents (V01-X59, Y85-Y86)	60	68	34	54	69
Alzheimer's Disease (G30)	89	89	*	88	90
Cerebrovascular Diseases (I60-I69)	85	85	77	84	87
Chronic Lower Respiratory Diseases (J40-J47)	80	80	75	81	80
Diabetes Mellitus (E10-E14)	77	80	59	73	81
Influenza and Pneumonia (J09-J18)	87	88	73	85	91
Intentional Self-Harm (Suicide) (*U03, X60-X84, Y87.0)	41	43	21	41	*
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	56	*	53	56	55
Assault (Homicide) (X85-Y09, Y87.1)	*	*	26	*	*
Unspecified Dementia (F03)	*	89	*	*	90

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

*This cause was not one of the ten 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.

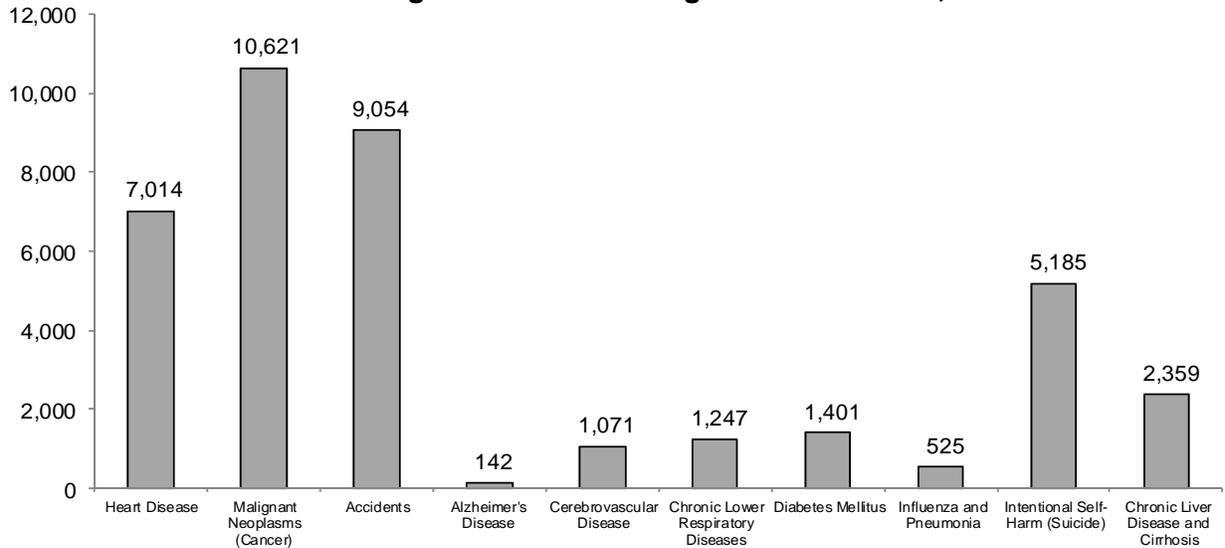
Source: South Dakota Department of Health, Office of Health Statistics

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.

Cancer led in YPLL (10,621 years) because many of the decedents were at a relatively young age at the time of death.

Figure 10
South Dakota Resident Years of Potential Life Lost (YPLL)
Before Age 75 for the Leading Causes of Death, 2013



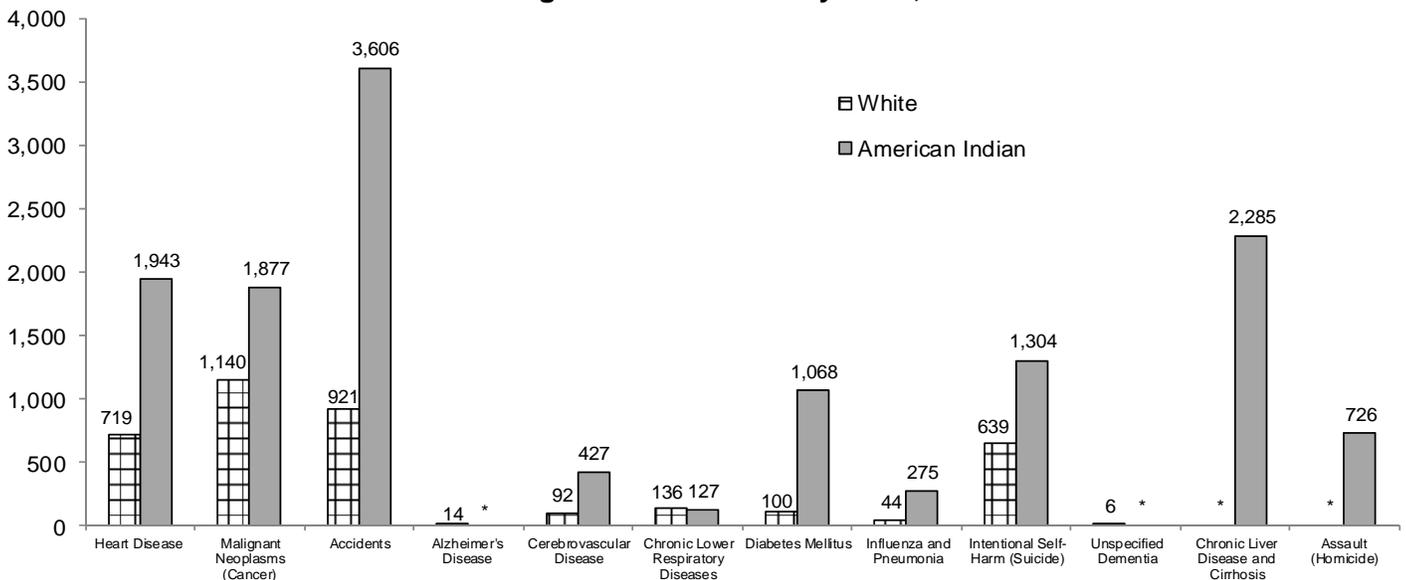
Note: The data is not comparable to the age-adjusted data in Figure 11 below.
 Source: South Dakota Department of Health, Office of Health Statistics

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 Indians exceeded whites substantially in YPLL for the leading causes of death.

American Indians' largest YPLL was accidents with 3,606 years while whites' largest YPLL was cancer with

1,140 years. Whites' second largest YPLL was accidents with 921 years while American Indians' second largest YPLL was chronic liver disease and cirrhosis with 2,285 years. Whites' third largest YPLL was heart disease with 719 years. Heart disease was the third largest YPLL for American Indians with 1,943 years, which still exceeded whites' largest YPLL (cancer with 1,140 years).

Figure 11
Age-Adjusted Years of Potential Life Lost (YPLL) Before Age 75 for the
Leading Causes of Death by Race, 2013



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

Place of Death

Table 50, below, displays the 10 leading causes of death by place where death occurred in 2013. Overall, nursing home, long term

care, and hospice facility had the highest occurrence of deaths with 39.2 percent. Hospital followed closely with 36.5 percent.

Table 50
South Dakota Resident Deaths by Cause of Death and Place of Death, 2013

Cause of Death	Total		Hospital		Nursing Home/Long Term Care/Hospice Facility		Residence		All Other Reported Entries	
	Num	%	Num	%	Num	%	Num	%	Num	%
South Dakota (All Deaths)	7,079	100	2,581	36.5	2,773	39.2	1,419	20.0	303	4.3
Heart Disease (I00-I09, I11, I13, I20-I51)	1,617	100	572	35.4	551	34.1	440	27.2	54	3.3
Malignant Neoplasms (Cancer) (C00-C97)	1,574	100	504	32.0	609	38.7	433	27.5	26	1.7
Accidents (V01-X59, Y85-Y86)	424	100	171	40.3	70	16.5	70	16.5	113	26.7
Alzheimer's Disease (G30)	420	100	30	7.1	377	89.8	10	2.4	3	0.7
Cerebrovascular Diseases (I60-I69)	414	100	187	45.2	200	48.3	23	5.6	4	1.0
Chronic Lower Respiratory Diseases (J40-J47)	413	100	148	35.8	183	44.3	76	18.4	6	1.5
Diabetes Mellitus (E10-E14)	239	100	63	26.4	108	45.2	63	26.4	5	2.1
Influenza and Pneumonia (J09-J18)	186	100	99	53.2	70	37.6	15	8.1	2	1.1
Intentional Self-Harm (Suicide) (*U03, X60-X84, Y87.0)	147	100	21	14.3	0	0.0	80	54.4	45	30.6
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	121	100	76	62.8	19	15.7	20	16.5	6	5.0
All Other Causes	1,524	100	710	46.6	586	38.5	189	12.4	39	2.6

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 1,241 deaths, or 17.5 percent, the certifier indicated "yes" or

"probably" that tobacco use contributed to the death. Conversely, on 4,123 deaths, or 58.2 percent, the certifier indicated that tobacco use did not contribute to the death.

In the remaining 1,715 deaths, or 24.2 percent, the certifier was unsure if tobacco use contributed to the death.

Table 51, below, 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 68.5 percent, or 285 out of the 418

trachea, bronchus, and lung cancer deaths in 2013. In 68.8 percent, or 284 chronic lower respiratory disease deaths the certifier said “yes” or “probably” that tobacco use contributed to the death.

Table 51
South Dakota Resident Leading Causes of Death as They Relate to Tobacco Use, 2013
(Did Tobacco Use Contribute to Death)

Cause of Death	Yes/Probably		Total Deaths	
	Number	Percent	Number	Percent
Total	1,241	17.5	7,079	100
Malignant neoplasms (C00-C97)	418	26.6	1,574	100
Malignant neoplasm of trachea, bronchus, and lung (C33-C34)	285	68.5	416	100
Malignant neoplasm of oesophagus (C15)	16	36.4	44	100
Malignant neoplasms of colon, rectum, and anus (C18-C21)	11	6.5	169	100
Malignant neoplasm of pancreas (C25)	11	10.1	109	100
Malignant neoplasms of lip, oral cavity, and pharynx (C00-C14)	10	55.6	18	100
Chronic lower respiratory diseases (J40-J47)	284	68.8	413	100
Emphysema (J43)	17	85.0	20	100
Heart disease (I00-I09, I11, I13, I20-I51)	245	15.2	1,617	100
Acute myocardial infarction (I21-I22)	105	17.9	586	100
Atherosclerotic heart disease (I25.1)	66	16.1	410	100
Essential (primary) Hypertension and Hypertensive renal disease (I10 & I12)	12	16.7	72	100
Atherosclerotic cardiovascular disease, so described (I25.0)	11	19.6	56	100
Hypertensive heart disease (I11)	10	11.1	90	100
Cerebrovascular diseases (I60-I69)	43	10.4	414	100
Diabetes mellitus (E10-E14)	43	18.0	239	100
Chronic liver disease and cirrhosis (K70 & K73-K74)	19	15.7	121	100
Alcoholic liver disease (K70)	15	16.5	91	100
Alzheimer's disease (G30)	16	3.8	420	100
Accidents (V01-X59, Y85-Y86)	13	3.1	424	100
Other interstitial pulmonary diseases with fibrosis (J84.1)	13	25.5	51	100
Influenza and pneumonia (J09-J18)	9	4.8	186	100

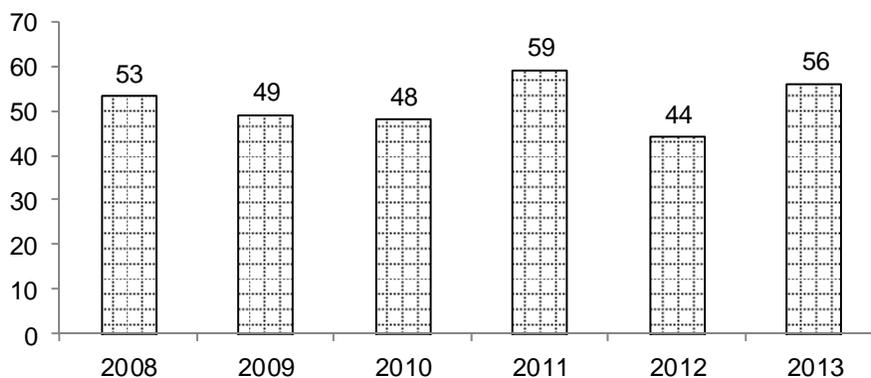
Source: South Dakota Department of Health, Office of Health Statistics

Drug-Induced Deaths

Figure 12, below, shows the drug-induced deaths for South Dakota residents for the past six years. The definition of drug-

induced deaths is located in the back of this report (page 231) within the Technical Notes section.

Figure 12
South Dakota Resident Drug-Induced Deaths,
2008-2013



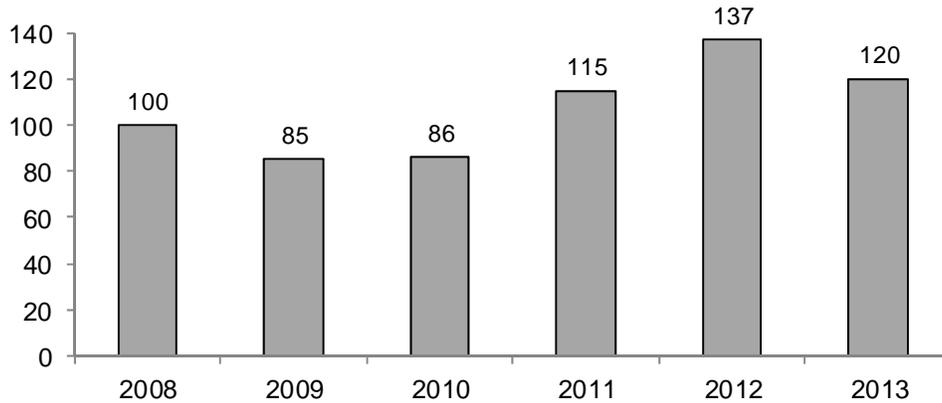
Source: South Dakota Department of Health, Office of Health Statistics

Alcohol-Induced Deaths

Figure 13, below, shows the alcohol-induced deaths for South Dakota residents for the past six years. The definition of

alcohol-induced deaths is located in the back of this report (page 231) within the Technical Notes section.

Figure 13
South Dakota Resident Alcohol-Induced Deaths, 2008-2013



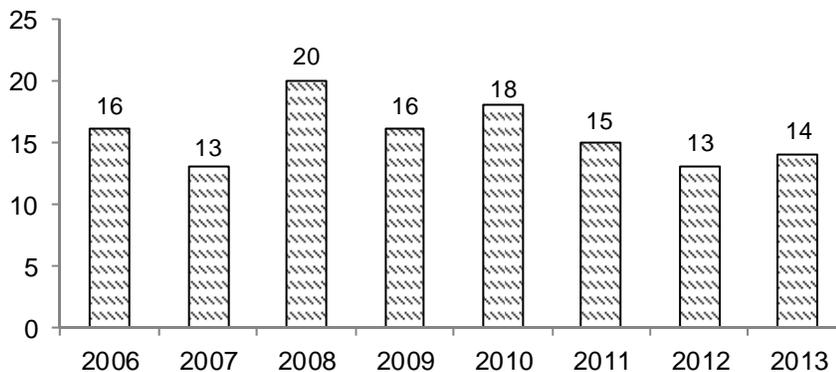
Source: South Dakota Department of Health, Office of Health Statistics

Farm Accident Deaths

Figure 14, below, shows the number of South Dakota resident deaths due to farm accidents for the past eight years. The

definition of farm accident deaths is located in the back of this report (page 231) within the Technical Notes section.

Figure 14
South Dakota Resident Deaths Due to Farm Accidents, 2006-2013



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

Maternal Mortality

Table 52, on the following page, shows maternal mortality deaths for the past 10 years. The definition of maternal mortality is

located in the back of this report (page 232) within the Technical Notes section.

Table 52
South Dakota Resident Maternal Deaths by Year of Death, 2004-2013

Year	# of Deaths
2013	3
2012	2
2011	3
2010	1
2009	1
2008	0
2007	3
2006	1
2005	1
2004	2

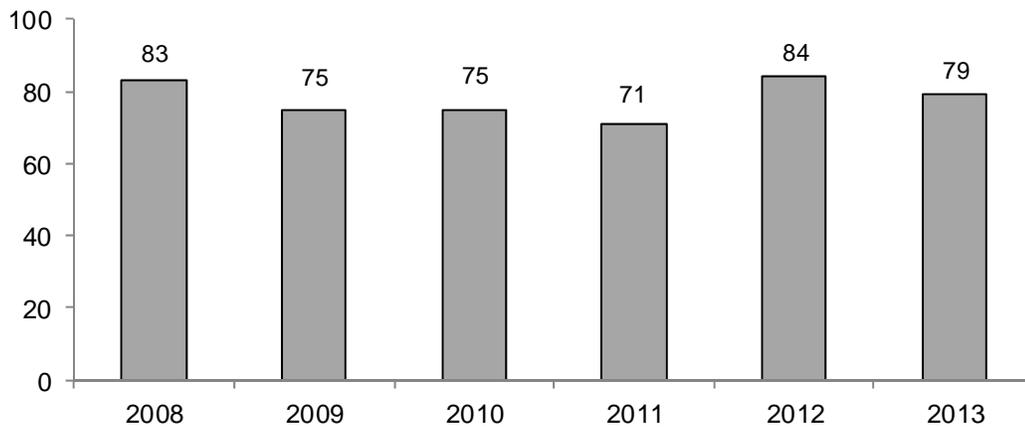
Source: South Dakota Department of Health,
Office of Health Statistics

Firearm Deaths

Figure 15, below, shows firearm deaths for South Dakota residents for the past six years. The definition of firearm deaths is

located in the back of this report (page 232) within the Technical Notes section.

Figure 15
South Dakota Resident Deaths Due to Firearms, 2008-2013



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

Method of Disposition

Table 53, on the next page, displays the different methods of disposition for the last 10 years. The top disposition in 2013 was burial with 4,146 deaths. The second highest

method of disposition in 2013 was cremation with 2,468 deaths. Since 2004, cremation has increased from 19.8 percent of all dispositions to 34.8 percent in 2013.

Table 53
South Dakota Resident Deaths by Disposition, 2004-2013

Year	Type of Disposition					
	Total Deaths	Burial	Cremation	Removal from State	Donation	Entombment
2013	7,079	4,146	2,468	417	32	15
2012	7,283	4,465	2,345	428	33	10
2011	7,271	4,539	2,211	472	33	10
2010	7,087	4,548	2,044	433	47	10
2009	6,913	4,545	1,855	464	34	8
2008	7,056	4,857	1,662	485	35	9
2007	6,800	4,775	1,474	481	46	18
2006	7,038	5,127	1,440	431	30	6
2005	7,074	5,373	1,515	151	27	7
2004	6,811	5,305	1,348	120	22	12

Note: Failure of deaths to add to total is due to the disposition not stated.
 Sharp increase in removal from state from 2005 to 2006 due to clarification of reporting process.
 Source: South Dakota Department of Health, Office of Health Statistics

Leading Causes and Selected Components

Tables 54a-54c, on pages 68 through 71, display South Dakota resident deaths, the crude death rate, and the age-adjusted death rate for 15 leading causes and selected components from 2004 to 2013.

The crude and age-adjusted rates for all causes in 2013 were 837.9 and 677.4 respectively, which are down from the crude and age-adjusted rates in 2012 of 873.9 and 706.8, respectively.

Table 54a
South Dakota Resident Deaths for 15 Leading Causes and Selected Components, 2004-2013

Cause of Death	Number of Deaths									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
All Causes	6,811	7,074	7,038	6,800	7,056	6,913	7,087	7,271	7,283	7,079
Heart Disease	1,775	1,764	1,743	1,623	1,677	1,778	1,611	1,615	1,652	1,617
Malignant Neoplasms (Cancer)	1,559	1,610	1,561	1,606	1,561	1,506	1,651	1,656	1,623	1,574
Trachea, Bronchus, and Lung	423	467	435	425	445	387	434	457	434	416
Colon, Rectum, and Anus	151	176	150	165	152	157	168	137	166	169
Pancreas	102	90	89	93	87	110	98	95	105	109
Female Breast	105	117	95	113	118	95	103	122	107	108
Leukemia	71	63	66	76	60	57	82	77	68	89
Prostate	102	94	103	94	78	84	96	88	75	76
Accidents	407	396	443	357	372	348	391	407	417	424
Motor Vehicle Accidents	185	181	186	145	125	133	141	99	142	149

Table 54a (continued)
South Dakota Resident Deaths for 15 Leading Causes and Selected Components, 2004-2013

Cause of Death	Number of Deaths									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Alzheimer's Disease	255	289	330	345	401	402	401	423	462	420
Cerebrovascular Diseases	463	511	437	408	391	417	411	442	410	414
Chronic Lower Respiratory Diseases	393	440	375	458	486	440	451	485	479	413
Diabetes Mellitus	227	239	261	246	216	200	241	267	219	239
Influenza and Pneumonia	180	242	173	189	186	135	166	178	188	186
Intentional Self-Harm (Suicide)	114	123	125	101	123	128	139	125	135	147
Chronic Liver Disease and Cirrhosis	97	83	83	94	100	79	83	98	113	121
Unspecified Dementia	85	30	74	70	80	90	91	117	111	99
Parkinson's Disease	65	60	75	62	69	65	85	73	53	78
Septicemia	42	52	65	64	54	63	66	69	64	74
Essential (Primary) Hypertension and Hypertensive Renal Disease	55	83	79	70	65	52	93	94	78	72
Nephritis, Nephrotic Syndrome, and Nephrosis	93	54	60	74	90	99	72	49	57	62

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

Table 54b
South Dakota Resident Crude Death Rates for 15 Leading Causes and Selected Components, 2004-2013

Cause of Death	Crude Death Rates									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
All Causes	879.7	906.8	892.6	853.2	877.0	851.0	870.4	882.3	873.9	837.9
Heart Disease	229.2	226.1	221.0	203.6	208.4	218.9	197.9	196.0	198.2	191.4
Malignant Neoplasms (Cancer)	201.3	206.4	198.0	201.5	194.0	185.4	202.8	201.0	194.8	186.3
Trachea, Bronchus, and Lung	54.6	59.9	55.2	53.3	55.3	47.6	53.3	55.5	52.1	49.2
Colon, Rectum, and Anus	19.5	22.6	19.0	20.7	18.9	19.3	20.6	16.6	19.9	20.0
Pancreas	13.2	11.5	11.3	11.7	10.8	13.5	12.0	11.5	12.6	12.9
Female Breast	27.0	29.9	24.0	28.3	29.3	23.4	25.3	29.7	25.8	25.7
Leukemia	9.2	8.1	8.4	9.5	7.5	7.0	10.1	9.3	8.2	10.5
Prostate	26.4	24.2	26.2	23.7	19.4	20.7	23.6	21.3	17.9	17.9
Accidents	52.6	50.8	56.2	44.8	46.2	42.8	48.0	49.4	50.0	50.2
Motor Vehicle Accidents	23.9	23.2	23.6	18.2	15.5	16.4	17.3	12.0	17.0	17.6
Alzheimer's Disease	32.9	37.0	41.9	43.3	49.8	49.5	49.3	51.3	55.4	49.7

Table 54b (continued)
South Dakota Resident Crude Death Rates for 15 Leading Causes and Selected Components, 2004-2013

Cause of Death	Crude Death Rates									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Cerebrovascular Diseases	59.8	65.5	55.4	51.2	48.6	51.3	50.5	53.6	49.2	49.0
Chronic Lower Respiratory Diseases	50.8	56.4	47.6	57.5	60.4	54.2	55.4	58.9	57.5	48.9
Diabetes Mellitus	29.3	30.6	33.1	30.9	26.8	24.6	29.6	32.4	26.3	28.3
Influenza and Pneumonia	23.2	31.0	21.9	23.7	23.1	16.6	20.4	21.6	22.6	22.0
Intentional Self-Harm (Suicide)	14.7	15.8	15.9	12.7	15.3	15.8	17.1	15.2	16.2	17.4
Chronic Liver Disease and Cirrhosis	12.5	10.6	10.5	11.8	12.4	9.7	10.2	11.9	13.6	14.3
Unspecified Dementia	11.0	3.8	9.4	8.8	9.9	11.1	11.2	14.2	13.3	11.7
Parkinson's Disease	8.4	7.7	9.5	7.8	8.6	8.0	10.4	8.9	6.4	9.2
Septicemia	5.4	6.7	8.2	8.0	6.7	7.8	8.1	8.4	7.7	8.8
Essential (Primary) Hypertension and Hypertensive Renal Disease	7.1	10.6	10.0	8.8	8.1	6.4	11.4	11.4	9.4	8.5
Nephritis, Nephrotic Syndrome, and Nephrosis	12.0	6.9	7.6	9.3	11.2	12.2	8.8	5.9	6.8	7.3

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 54c
South Dakota Resident Age-Adjusted Death Rates for 15 Leading Causes and Selected Components, 2004-2013

Cause of Death	Age-Adjusted Death Rates									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
All Causes	742.3	758.0	732.6	695.1	712.1	688.6	713.4	716.1	706.8	677.4
Heart Disease	185.8	181.8	175.0	159.5	162.2	168.3	154.9	153.0	153.8	148.8
Malignant Neoplasms (Cancer)	176.6	180.3	169.6	170.9	164.8	156.5	170.6	168.6	162.2	154.3
Trachea, Bronchus, and Lung	49.2	52.8	48.0	46.3	47.3	40.7	45.4	47.2	43.5	41.0
Colon, Rectum, and Anus	16.4	19.4	15.9	17.2	15.9	15.8	17.0	13.9	16.4	16.7
Pancreas	11.6	10.1	9.5	9.8	8.9	11.3	10.2	9.5	10.6	10.7
Female Breast	22.0	23.8	19.2	20.9	23.3	17.6	19.7	23.7	19.5	19.3
Leukemia	7.8	7.0	7.0	8.1	6.1	6.0	8.6	7.8	7.3	9.0
Prostate	27.5	24.6	26.7	23.7	19.2	20.3	23.7	20.9	17.7	17.0
Accidents	49.4	47.2	51.5	40.9	41.8	40.0	44.3	44.8	46.6	46.4
Motor Vehicle Accidents	23.7	23.0	23.2	17.9	15.1	16.6	17.0	11.8	17.1	17.4
Alzheimer's Disease	24.5	27.5	30.0	30.7	35.9	35.2	36.2	36.6	39.6	35.1
Cerebrovascular Diseases	47.3	51.6	42.3	38.9	37.6	38.8	39.2	42.0	37.6	37.5

Table 54c (continued)
South Dakota Resident Age-Adjusted Death Rates for 15 Leading Causes and Selected Components, 2004-2013

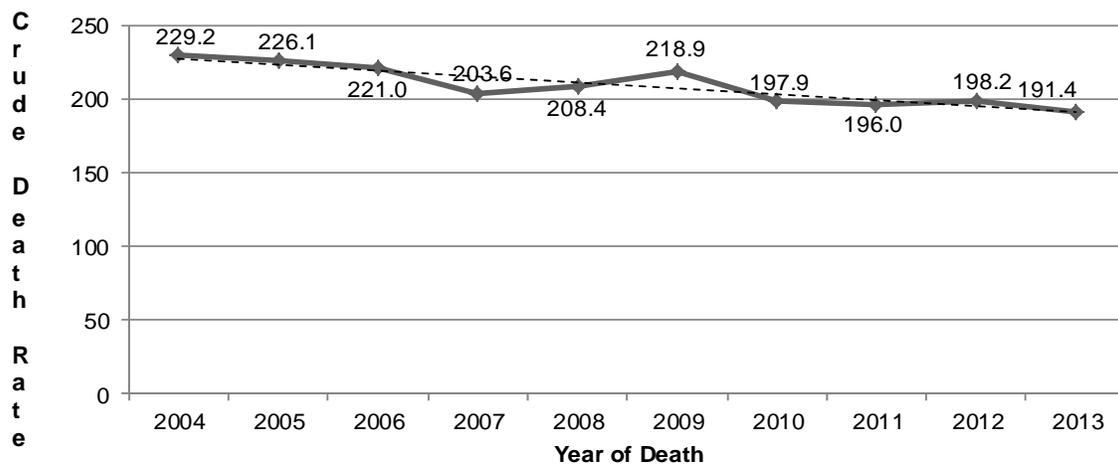
Cause of Death	Age-Adjusted Death Rates									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Chronic Lower Respiratory Diseases	42.6	47.4	39.3	47.1	49.0	43.9	46.0	47.4	45.4	39.1
Diabetes Mellitus	24.8	25.6	26.8	25.5	21.8	20.4	24.6	26.8	21.6	22.9
Influenza and Pneumonia	18.1	23.7	16.5	18.1	17.3	12.6	15.5	16.3	16.9	16.4
Intentional Self-Harm (Suicide)	15.0	15.5	15.9	12.3	15.4	16.0	17.3	15.3	16.1	18.0
Chronic Liver Disease and Cirrhosis	12.0	10.3	10.2	11.2	11.6	8.7	9.7	11.1	13.3	13.3
Unspecified Dementia	8.0	2.7	6.5	6.2	6.9	7.9	8.3	10.2	9.4	8.4
Parkinson's Disease	6.6	6.1	7.5	6.1	6.7	6.2	8.2	7.0	5.1	7.3
Septicemia	4.7	5.6	6.8	6.5	5.5	6.4	6.7	7.0	6.2	7.2
Essential (Primary) Hypertension and Hypertensive Renal Disease	5.6	7.9	7.3	6.6	6.2	4.8	8.8	8.5	6.8	6.3
Nephritis, Nephrotic Syndrome, and Nephrosis	9.9	5.5	6.0	7.2	8.9	9.4	7.1	4.5	5.5	5.7

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

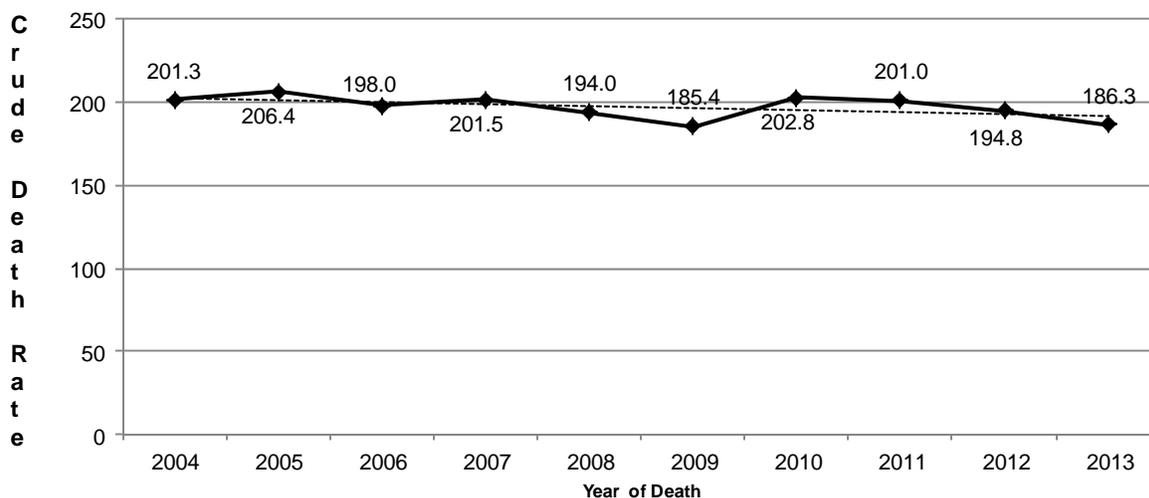
death rates for the 15 leading causes of death in 2013.

Figure 16
South Dakota Resident Crude Death Rate Due to Heart Disease by Year of Death, 2004-2013



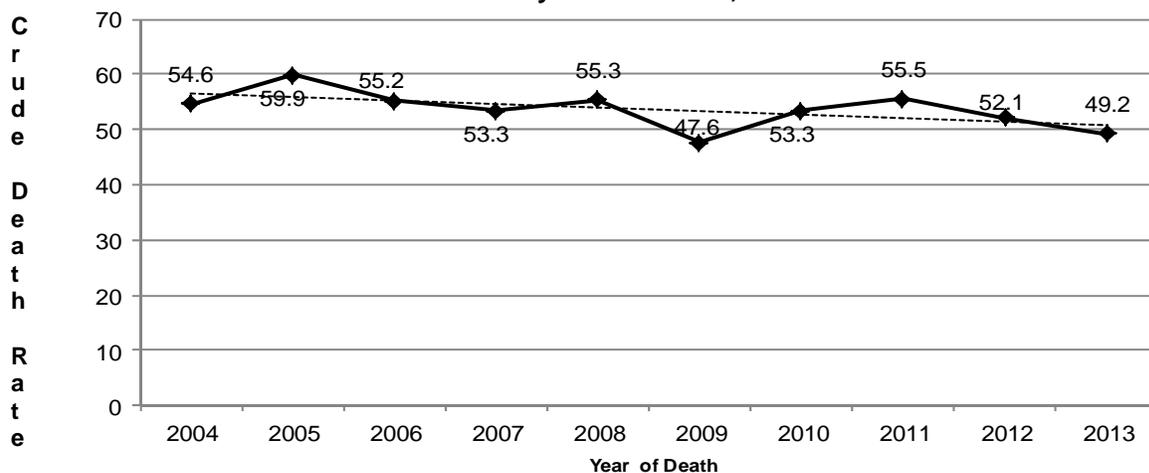
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 17
South Dakota Resident Crude Death Rate Due to Malignant Neoplasms by
Year of Death, 2004-2013



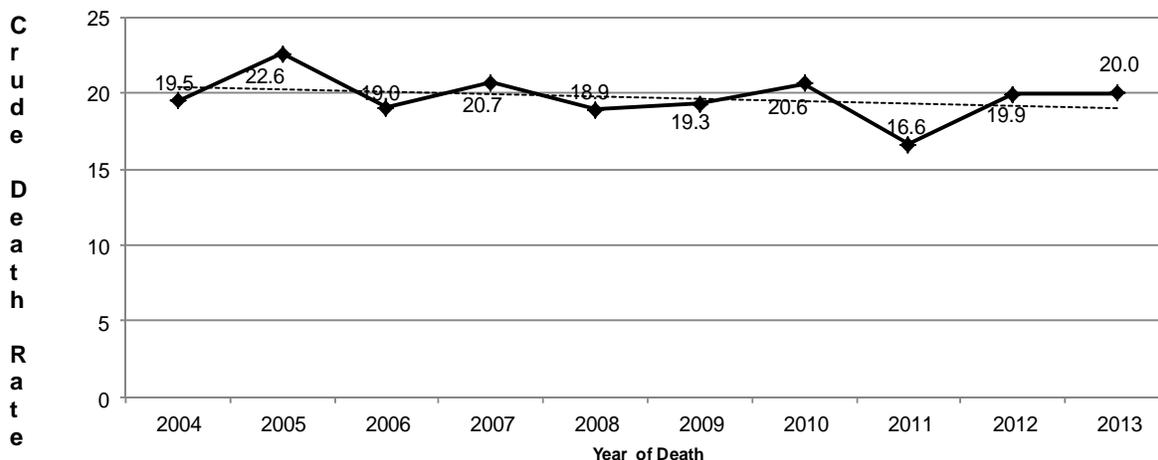
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 17a
South Dakota Resident Crude Death Rate Due to Trachea, Bronchus, and Lung
Cancer by Year of Death, 2004-2013



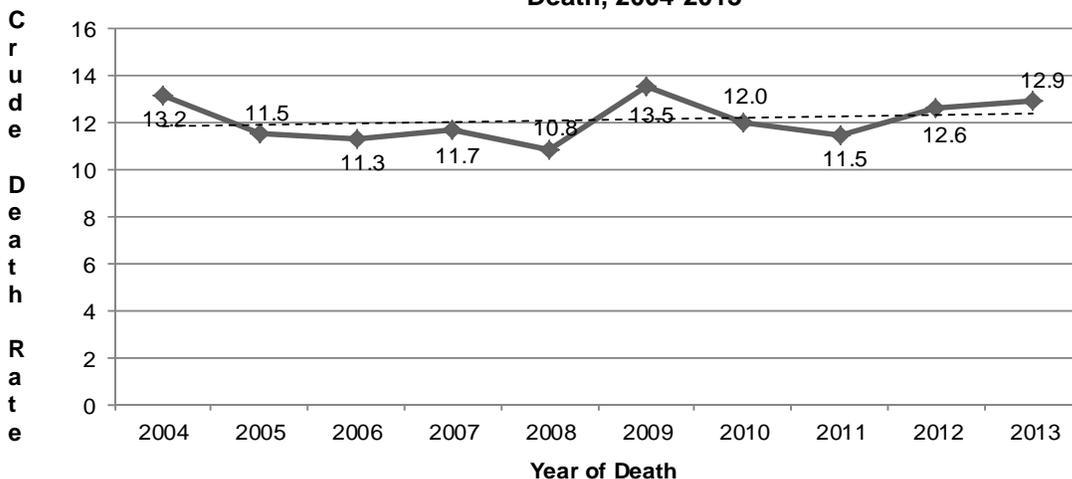
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 17b
South Dakota Resident Crude Death Rate Due to Colon, Rectum, and Anus
Cancer by Year of Death, 2004-2013



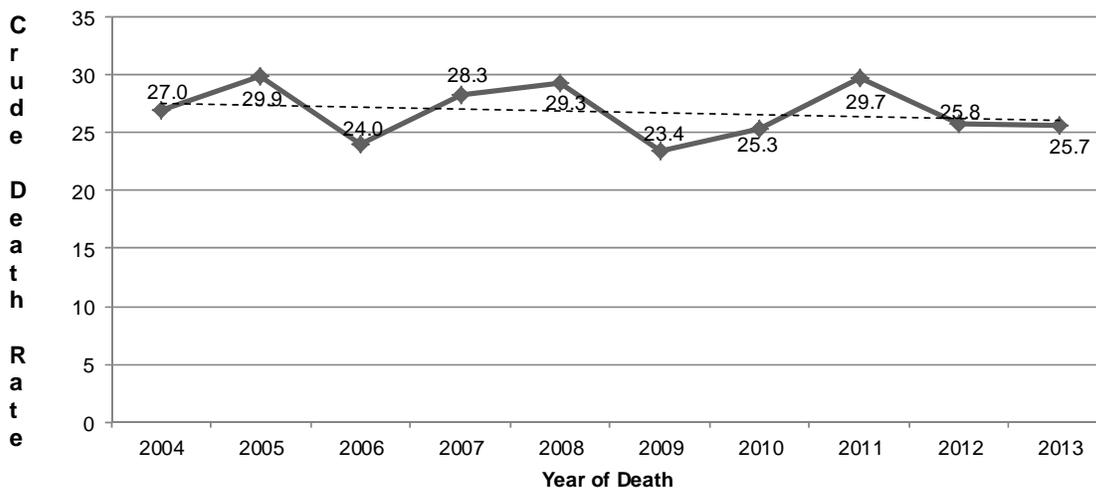
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 17c
South Dakota Resident Crude Death Rate Due to Pancreas Cancer by Year of Death, 2004-2013



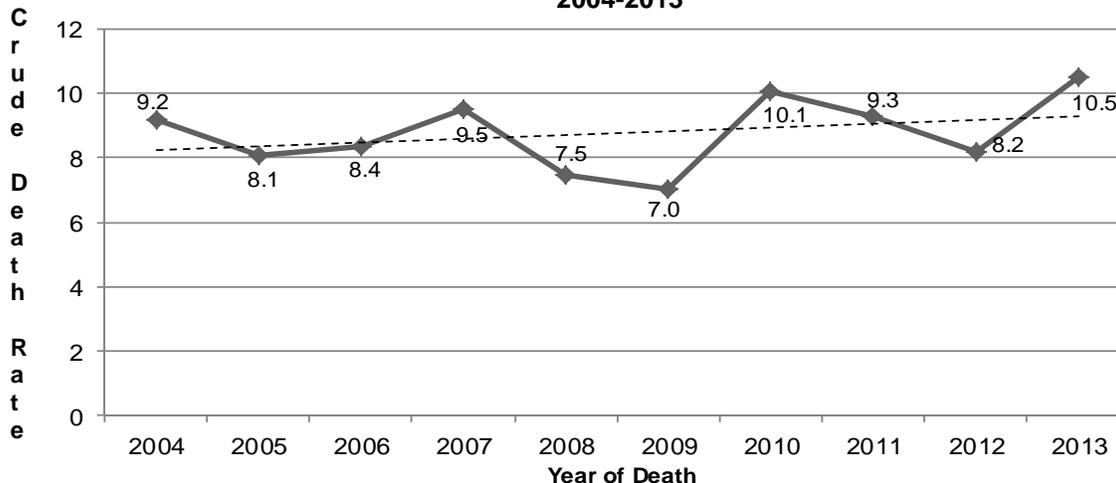
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 17d
South Dakota Resident Crude Death Rate Due to Female Breast Cancer by Year of Death, 2004-2013



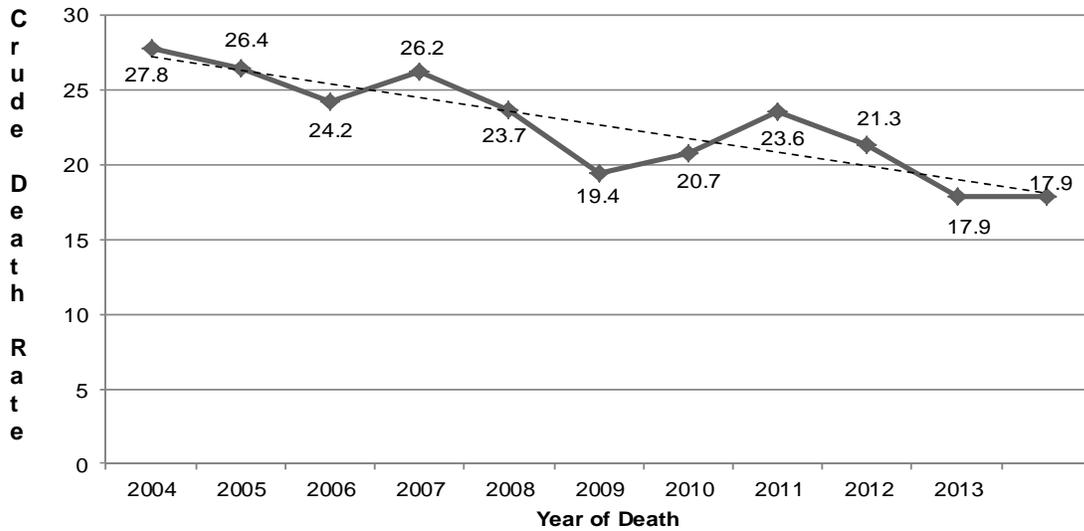
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 17e
South Dakota Resident Crude Death Rate Due to Leukemia by Year of Death, 2004-2013



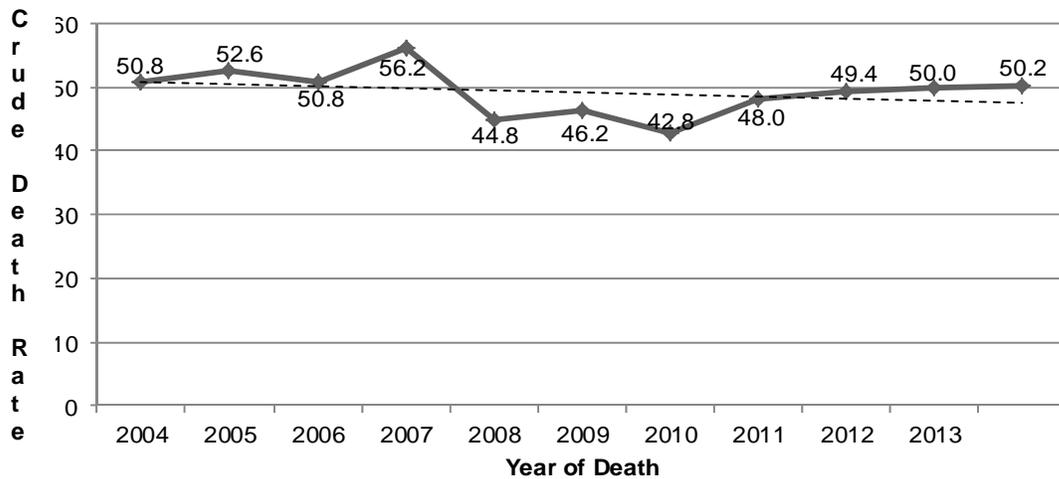
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 17f
South Dakota Resident Crude Death Rate Due to Prostate Cancer by Year of Death, 2004-2013



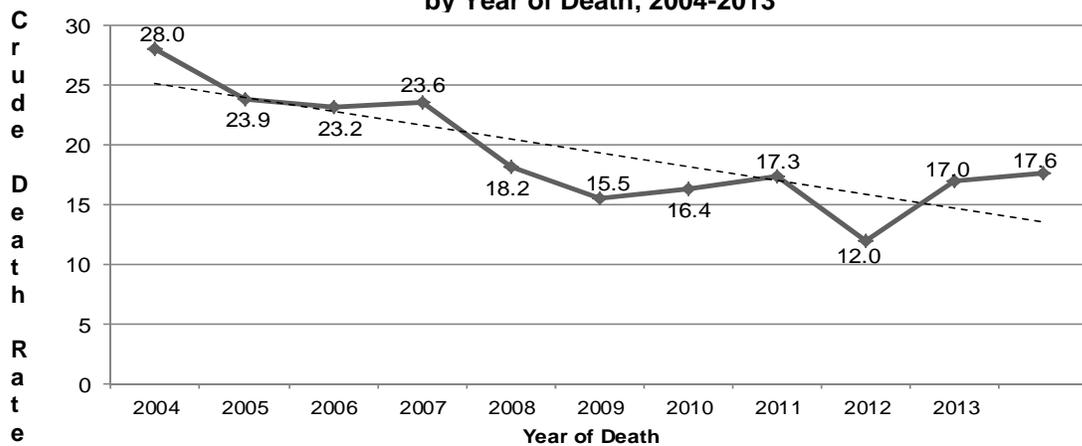
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 18
South Dakota Resident Crude Death Rate Due to Accidents by Year of Death, 2004-2013



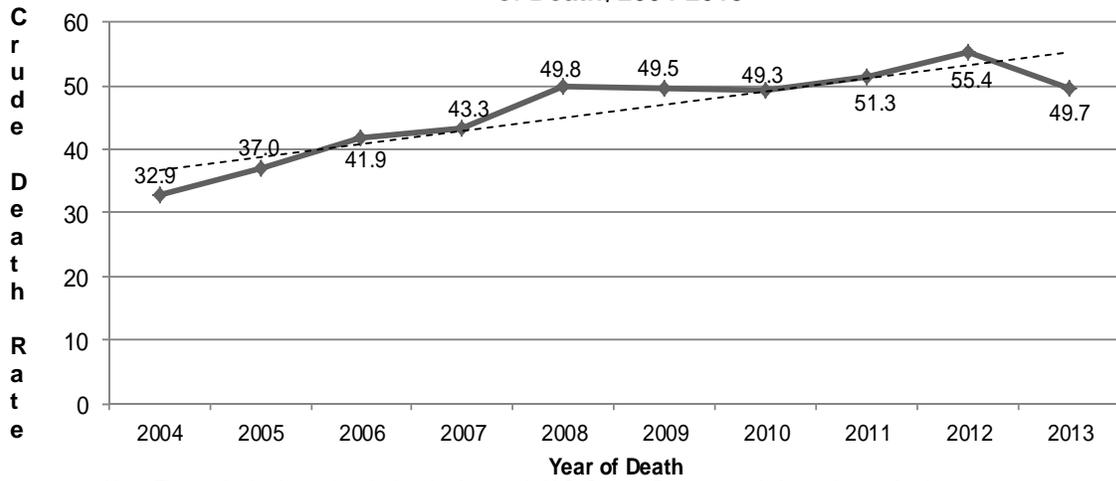
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 18a
South Dakota Resident Crude Death Rate Due to Motor Vehicle Accidents by Year of Death, 2004-2013



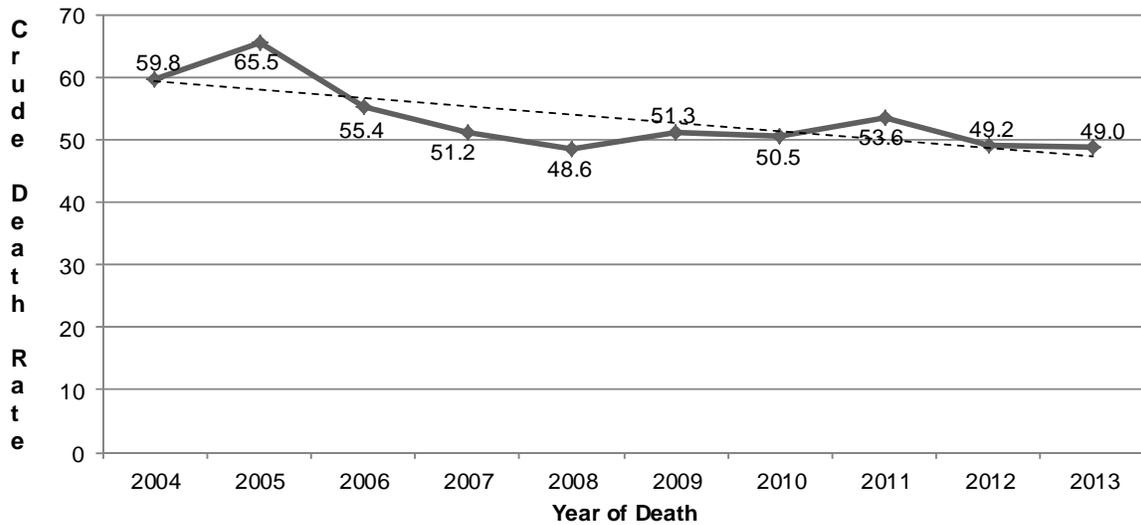
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 19
South Dakota Resident Crude Death Rate Due to Alzheimer's Disease by Year of Death, 2004-2013



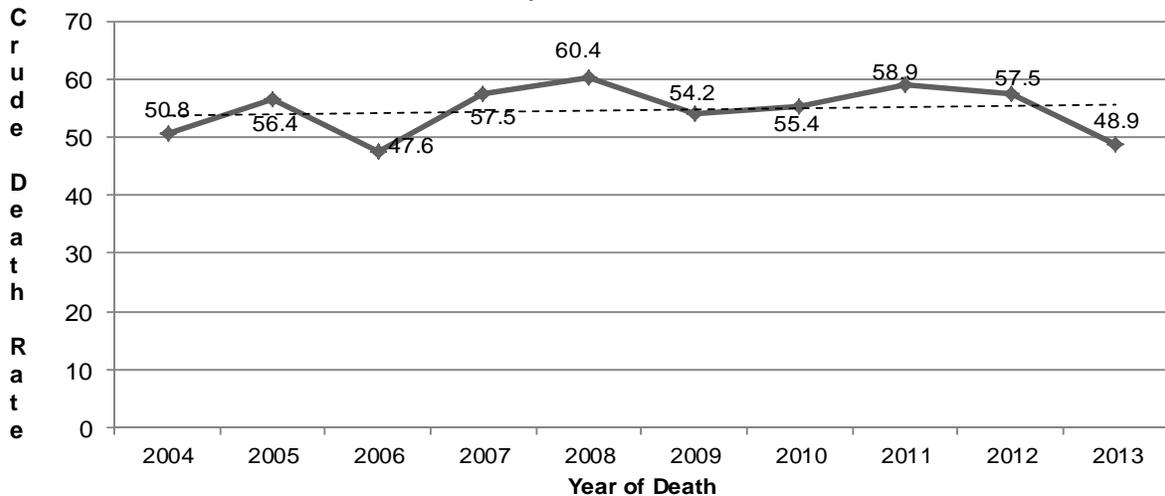
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 20
South Dakota Resident Crude Death Rate Due to Cerebrovascular Disease by Year of Death, 2004-2013



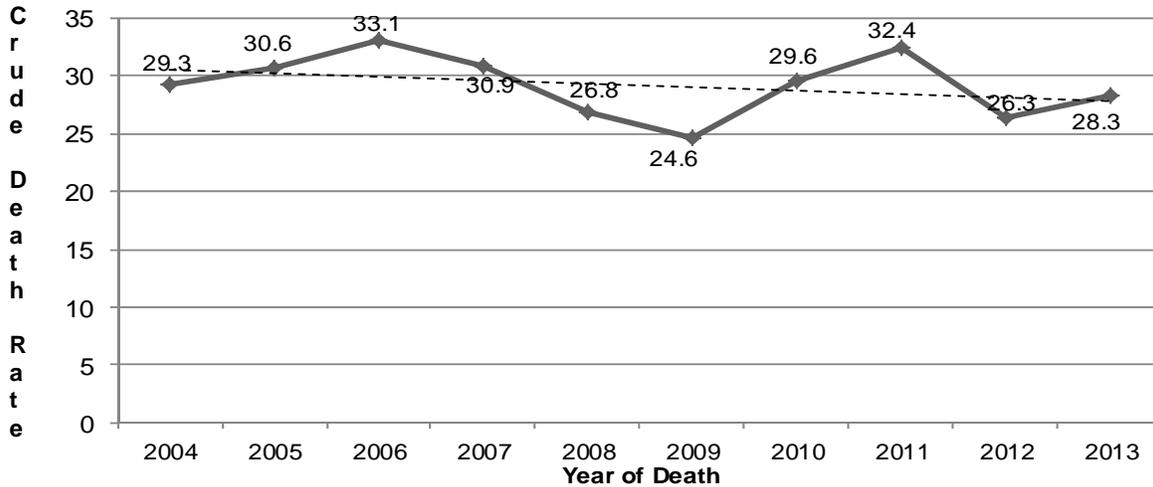
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 21
South Dakota Resident Crude Death Rate Due to Chronic Lower Respiratory Disease by Year of Death, 2004-2013



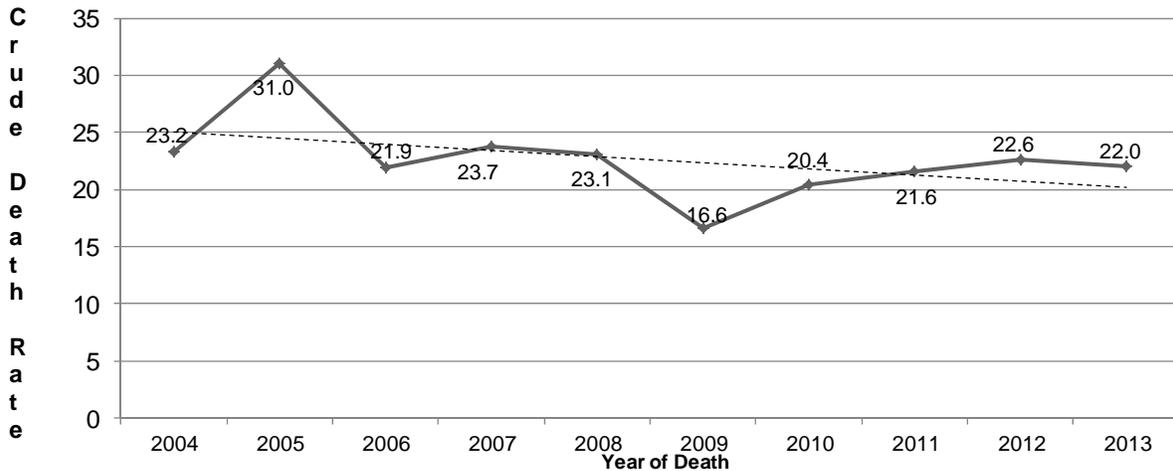
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 22
South Dakota Resident Crude Death Rate Due to Diabetes Mellitus by Year of Death, 2004-2013



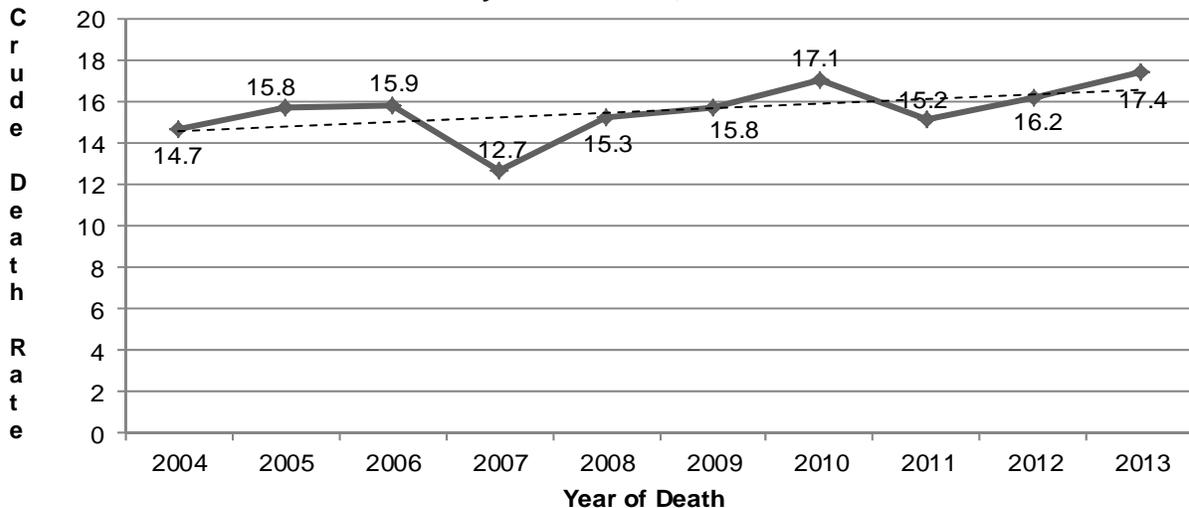
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 23
South Dakota Resident Crude Death Rate Due to Influenza and Pneumonia by Year of Death, 2004-2013



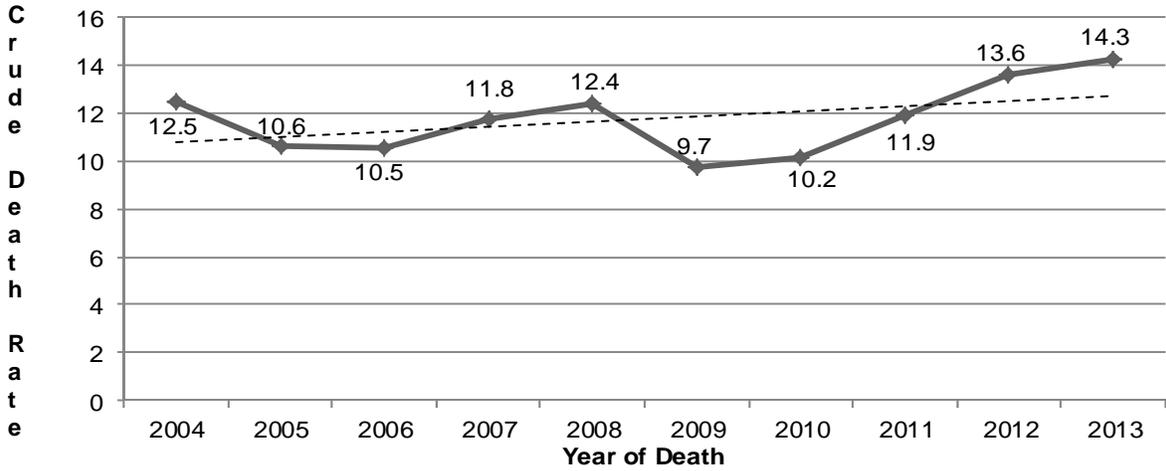
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 24
South Dakota Resident Crude Death Rate Due to Intentional Self-Harm (Suicide) by Year of Death, 2004-2013



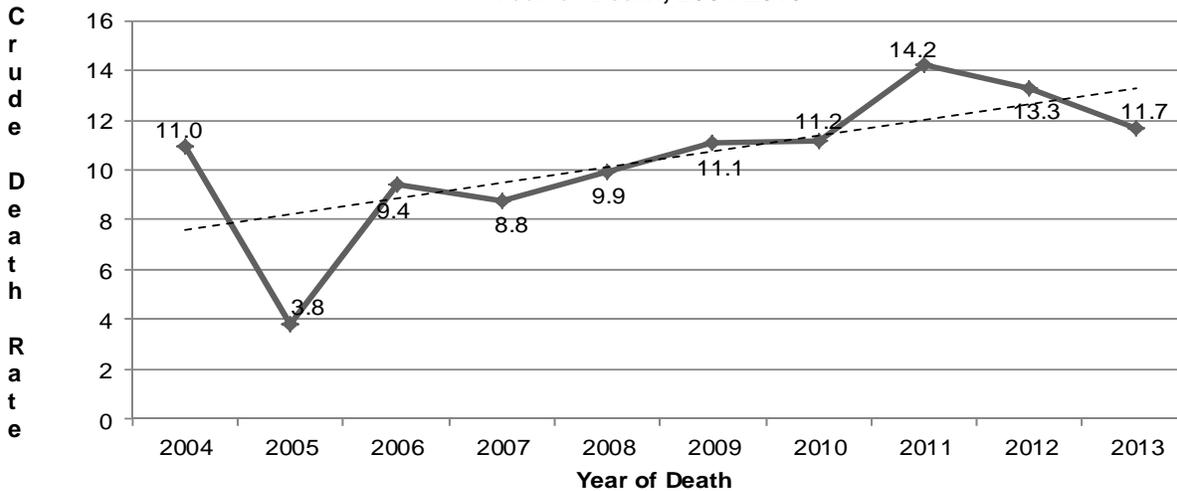
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 25
South Dakota Resident Crude Death Rate Due to Chronic Liver Disease and Cirrhosis by Year of Death, 2004-2013



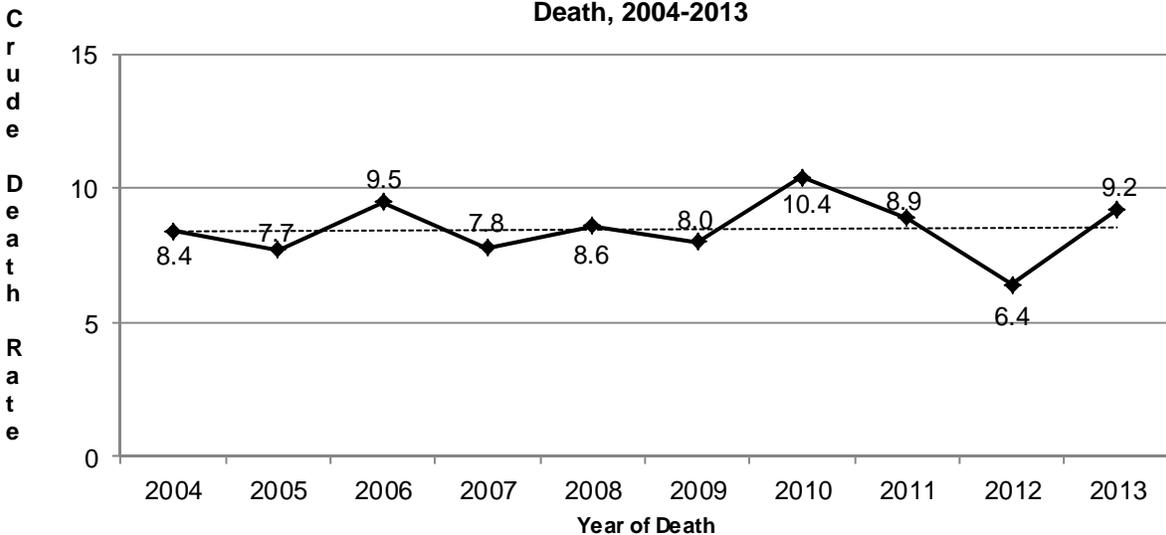
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 26
South Dakota Resident Crude Death Rate Due to Unspecified Dementia by Year of Death, 2004-2013



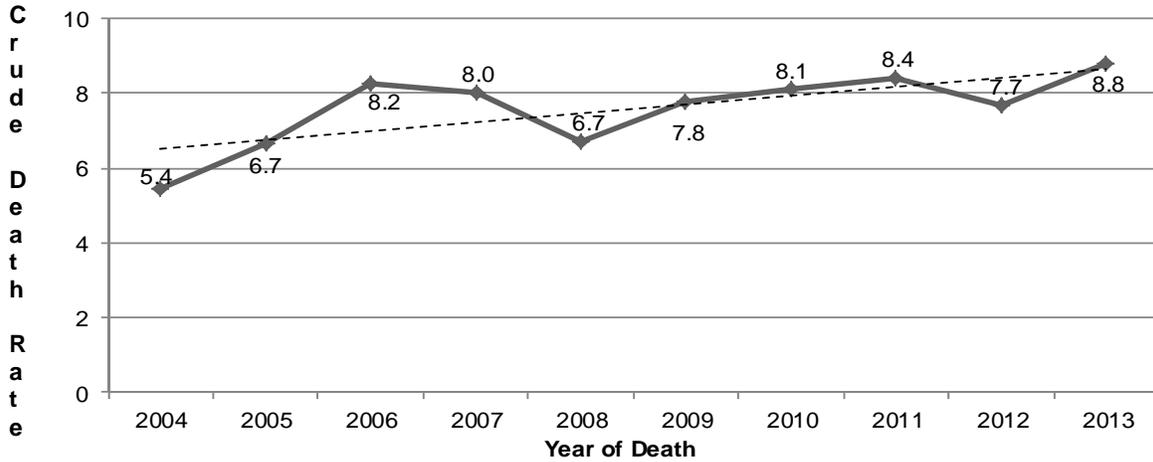
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 27
South Dakota Resident Crude Death Rate Due to Parkinson's Disease by Year of Death, 2004-2013



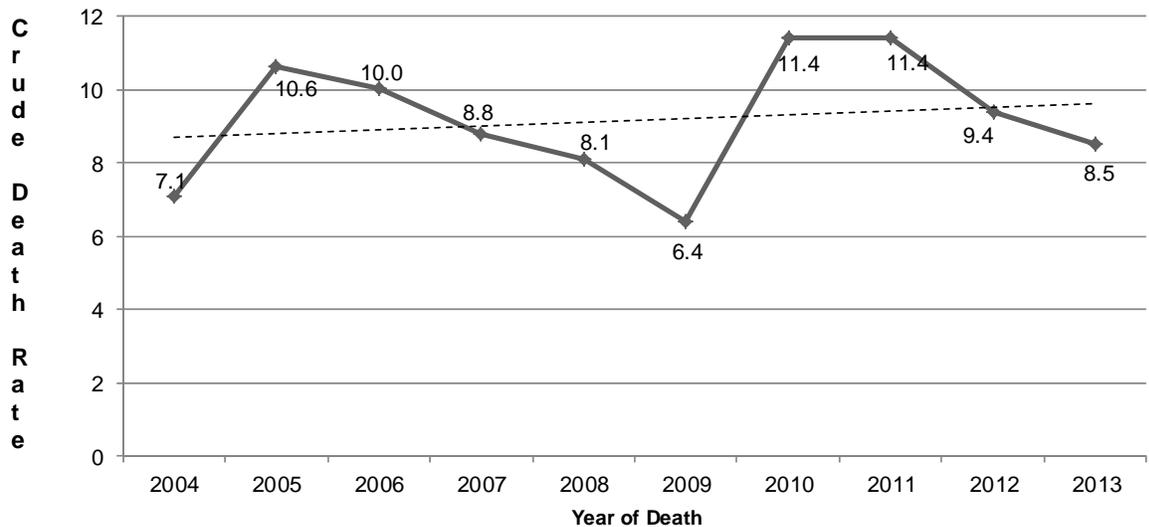
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 28
South Dakota Resident Crude Death Rate Due to Septicemia by Year of Death, 2004-2013



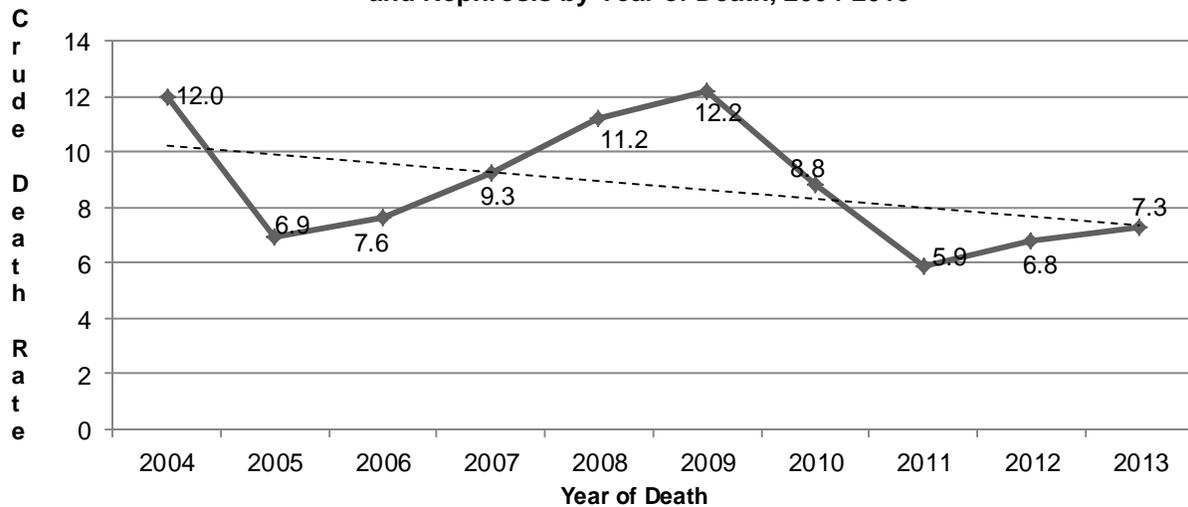
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 29
South Dakota Resident Crude Death Rate Due to Essential (Primary) Hypertension and Hypertensive Renal Disease by Year of Death, 2004-2013



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 30
South Dakota Resident Crude Death Rate Due to Nephritis, Nephrotic Syndrome, and Nephrosis by Year of Death, 2004-2013



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