

Mortality

An Overview: 2010	
Total South Dakota Resident Deaths	7,087
Crude Death Rates per 100,000 Population	
South Dakota	870.4
United States (Provisional)	798.7
Age-Adjusted Death Rates per 100,000 Population	
South Dakota	713.4
United States (Provisional)	746.2
Age-Adjusted YPLL Before Age 75 per 100,000 Population	
Whites	5,353
American Indians	18,296

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 42, below, displays the deaths, crude death rates, and age-adjusted death rates for the United States and South Dakota for the past 11 years.

Table 42
Resident Deaths, Crude Death Rates, and Age-Adjusted Death Rates,
South Dakota and United States, 2000-2010

Year	United States			South Dakota		
	Number	Crude Rate	Age-Adjusted Rate	Number	Crude Rate	Age-Adjusted Rate
2010	*2,465,932	*798.7	*746.2	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. 2009 and 2010 data are provisional
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

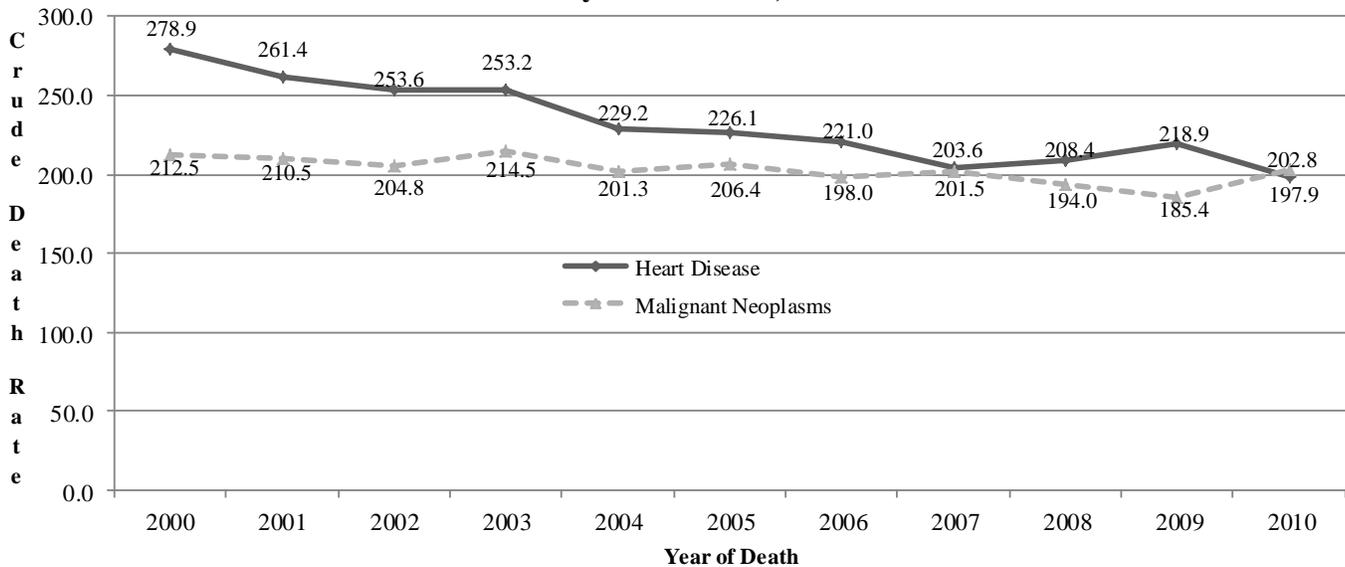
The five leading causes of death in 2010 for South Dakota residents were cancer, heart disease, chronic lower respiratory diseases, cerebrovascular diseases, and Alzheimer’s disease.

Cancer deaths replaced heart disease for the first time as the leading cause of death in South Dakota accounting for 23.3 percent of South Dakota’s 2010 resident deaths. This is an increase of 6.9 percent from 2009. Cancer was the leading cause of death for all South Dakota residents regardless of race. This was also true for males; however females’ leading cause of death in 2010 remained heart disease.

Trachea, bronchus, and lung cancer were the leading cause of cancer deaths during the year, accounting for 26.3 percent of cancer deaths.

Figure 7, below, compares the crude death rates of South Dakota resident heart disease and cancer since 2000. Over the past 11 years, the crude death rate for heart disease has been decreasing while the crude death rate for cancer has remained fairly steady.

Figure 7
South Dakota Resident Crude Death Rate Due to Malignant Neoplasms and Heart Disease by Year of Death, 2000-2010



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

Heart disease was the second leading cause of death for the first time in 2010 and accounted for 22.7 percent of South Dakota resident deaths, an 11.7 percent decrease from 2009.

Chronic lower respiratory disease accounted for 6.4 percent of 2010 South Dakota resident deaths, an increase of 6.7 percent from 2009. Chronic lower respiratory diseases include emphysema, asthma, and bronchitis.

Cerebrovascular diseases accounted for 5.8 percent of 2010 South Dakota resident deaths, a decrease of 9.4 percent from 2009. Stroke, not specified as hemorrhage or infarction, caused the majority of the deaths for this type of disease.

Alzheimer’s disease caused 5.7 percent of all South Dakota resident deaths in 2010. Alzheimer’s was the fifth leading cause of death in 2009.

Table 43, below, displays the breakdown of accidental deaths, which were the sixth leading cause of deaths among South Dakotans. In 2010, 391 or 5.5 percent of deaths were due to accidents.

The highest type of motor vehicle death in 2010 was car occupant with 71 deaths. The highest death in the other causes of accidental death in 2010 was falls with 130 deaths.

**Table 43
South Dakota Resident Leading Causes of Death Due to Accidents, 2006-2010**

	Total	Year of Death				
		2006	2007	2008	2009	2010
Total Deaths	1,911	443	357	372	348	391
Motor Vehicle Accidents	730	186	145	125	133	141
Car Occupant.....(V40-V49)	388	99	68	66	84	71
Occupant of Pick-Up Truck or Van.....(V50-V59)	121	39	26	16	16	24
Pedestrian.....(V01-V09)	64	12	17	15	6	14
Motorcycle Rider.....(V20-V29)	62	12	16	9	12	13
Occupant of Special All-Terrain Vehicle.....(V86)	28	4	7	6	4	7
Occupant of Heavy Transport Vehicle.....(V60-V69)	13	6	2	1	1	3
All Other Motor Vehicle Accidents	54	14	9	12	10	9
Other Causes of Accidental Death	1,181	257	212	247	215	250
Falls.....(W00-W19)	627	141	130	124	102	130
Accidental Poisoning.....(X40-X49)	155	29	20	41	34	31
Accidental Threats to Breathing (excl. drowning).....(W75-W84)	69	19	9	11	16	14
Exposure to Smoke, Fire, and Flames.....(X00-X09)	56	12	8	16	11	9
Accidental Drowning and Submersion.....(W65-W74, V90, V92)	46	12	7	8	8	11
Exposure to Excessive Natural Cold.....(X31)	42	6	6	9	8	13
Accidental Discharge of Firearms.....(W32-W34)	15	2	2	3	4	4
Air Transport Accidents...(V95.0-V95.3, V95.8-V95.9, & V96-V97)	11	1	3	1	3	3
Contact with Agricultural Machinery.....(W30)	7	3	1	1	0	2
Exposure to Excessive Natural Heat.....(X30)	6	1	4	0	0	1
All Other Causes of Accidents	147	31	22	33	29	32

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

Table 44, 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 four years, however in 2010, cancer took over the first leading cause of death with heart disease falling to second leading cause of death in South Dakota. From 2009 to 2010, the leading causes of death in places three through nine have remained the same.

For the first time in the past five years, essential (primary) hypertension and hypertensive renal disease were the tenth leading cause of death in South Dakota. For the past two years, chronic liver disease and cirrhosis have not been in the top ten causes of death for South Dakota residents.

Table 44
South Dakota Resident Leading Causes of Death, 2006-2010

Cause of Death	Total			2006			2007			2008			2009			2010		
	Rank	Deaths	Percent	Rank	Deaths	Percent	Rank	Deaths	Percent	Rank	Deaths	Percent	Rank	Deaths	Percent	Rank	Deaths	Percent
South Dakota (All Deaths)		34,894	100.0		7,038	100.0		6,800	100.0		7,056	100.0		6,913	100.0		7,087	100.0
Heart Disease(I00-I09, I11, I13, I20-I51)	1	8,432	24.2	1	1,743	24.8	1	1,623	23.9	1	1,677	23.8	1	1,778	25.7	2	1,611	22.7
Malignant Neoplasms (Cancer).....(C00-C97)	2	7,885	22.6	2	1,561	22.2	2	1,606	23.6	2	1,561	22.1	2	1,506	21.8	1	1,651	23.3
Chronic Lower Respiratory Diseases.....(J40-J47)	3	2,210	6.3	5	375	5.3	3	458	6.7	3	486	6.9	3	440	6.0	3	451	6.4
Cerebrovascular Diseases(I60-I69)	4	2,064	5.9	4	437	6.2	4	408	6.0	5	391	5.5	4	417	6.4	4	411	5.8
Accidents(V01-X59, Y85-Y86)	5	1,911	5.5	3	443	6.3	5	357	5.3	6	372	5.3	6	348	5.0	6	391	5.5
Alzheimer's Disease(G30)	6	1,879	5.4	6	330	4.7	6	345	5.1	4	401	5.7	5	402	5.8	5	401	5.7
Diabetes Mellitus(E10-E14)	7	1,164	3.3	7	261	3.7	7	246	3.6	7	216	3.1	7	200	2.9	7	241	3.4
Influenza and Pneumonia(J09-J18)	8	849	2.4	8	173	2.5	8	189	2.8	8	186	2.6	8	135	2.0	8	166	2.3
Intentional Self-Harm (Suicide)(*U03, X60-X84, Y87.0)	9	616	1.8	9	125	1.8	9	101	1.5	9	123	1.7	9	128	1.9	9	139	2.0
Chronic Liver Disease and Cirrhosis.....(K70 & K73-K74)	10	439	1.3	10	83	1.2	10	94	1.4	10	100	1.4	*	*	*	*	*	*
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					1,507	21.4		1,373	20.2		1,543	21.9		1,460	21.1		1,532	21.6

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 45, below, presents South Dakota resident leading causes of death by race. In 2010, patterns for the 10 leading causes of death varied by race. Seven of the 10 leading causes were the same for whites and American Indians, but they differed by rank. For example, accidents were the sixth leading cause of death at 4.8 percent for the white population, but the third leading cause of death for the American Indian population at 13.7 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, nephritis, nephrotic syndrome and nephrosis, and septicemia. Intentional self-harm (suicide) went from being ranked as a fourth leading cause of death in 2009 down to the sixth leading cause of death in 2010 for American Indians.

Table 45
South Dakota Resident Leading Causes of Death by Race, 2010

Cause of Death	All Races			White			American Indian		
	Rank	Deaths	Percent	Rank	Deaths	Percent	Rank	Deaths	Percent
South Dakota (All Deaths)		7,087	100.0		6,471	100.0		534	100.0
Malignant Neoplasms (Cancer)....(C00-C97)	1	1,651	23.3	1	1,553	24.0	1	84	15.7
Heart Disease.....(I00-I09, I11, I13, I20-I51)	2	1,611	22.7	2	1,525	23.6	2	76	14.2
Chronic Lower Respiratory Diseases(J40-J47)	3	451	6.4	3	427	6.6	7	16	3.0
Cerebrovascular Diseases.....(I60-I69)	4	411	5.8	5	394	6.1	9	13	2.4
Alzheimer's Disease.....(G30)	5	401	5.7	4	396	6.1	*	*	*
Accidents..... (V01-X59, Y85-Y86)	6	391	5.5	6	308	4.8	3	73	13.7
Diabetes Mellitus.....(E10-E14)	7	241	3.4	7	188	2.9	4	51	9.6
Influenza and Pneumonia.....(J09-J18)	8	166	2.3	8	154	2.4	*	*	*
Intentional Self-Harm (Suicide)(*U03, X60-X84, Y87.0)	9	139	2.0	9	110	1.7	6	23	4.3
Essential (Primary) Hypertension and Hypertensive Renal Disease.....(I10, I12)	10	93	1.3	10	87	1.3	*	*	*
Chronic Liver Disease and Cirrhosis(K70 & K73-K74)	*	*	*	*	*		5	30	5.6
Septicemia.....(A40-A41)	*	*	*	*	*		8	14	2.6
Nephritis, Nephrotic Syndrome, and Nephrosis...(N00-N07, N17-N19, N25-N27)	*	*	*	*	*		10	12	2.2
All Other Causes	-	1,532	21.6	-	1,329	20.5	-	142	26.6

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 2010, patterns for the 10 leading causes of death also varied by gender in South Dakota (Table 46, on the next page). Eight of the 10 leading causes were the same for South Dakota's men

and women, but they differed in rank. Intentional self-harm (suicide) and chronic liver disease and cirrhosis were among the 10 leading causes of death for South Dakota's men, but not for women.

Likewise, unspecified dementia, and essential (primary) hypertension and hypertensive renal disease were among the 10 leading causes of death for South Dakota's women, but not for South Dakota's men. Men were also more likely to die in accidents than women were, while women were more likely to

die from Alzheimer's disease than men. Overall, cancer moved to the leading cause of death for South Dakota residents in 2010, however, heart disease remained the primary cause of death among women.

Table 46
South Dakota Resident Leading Causes of Death by Gender, 2010

Cause of Death	Total			Male			Female		
	Rank	Deaths	Percent	Rank	Deaths	Percent	Rank	Deaths	Percent
South Dakota (All Deaths)		7,087	100.0		3,552	100.0		3,535	100.0
Malignant Neoplasms (Cancer)....(C00-C97)	1	1,651	23.3	1	886	24.9	2	765	21.6
Heart Disease.....(I00-I09, I11, I13, I20-I51)	2	1,611	22.7	2	817	23.0	1	794	22.5
Chronic Lower Respiratory Diseases(J40-J47)	3	451	6.4	4	255	7.2	5	196	5.5
Cerebrovascular Diseases.....(I60-I69)	4	411	5.8	5	154	4.3	4	257	7.3
Alzheimer's Disease.....(G30)	5	401	5.7	6	117	3.3	3	284	8.0
Accidents..... (V01-X59, Y85-Y86)	6	391	5.5	3	257	7.2	6	134	3.8
Diabetes Mellitus.....(E10-E14)	7	241	3.4	7	117	3.3	7	124	3.5
Influenza and Pneumonia.....(J09-J18)	8	166	2.3	9	73	2.1	8	93	2.6
Intentional Self-Harm (Suicide)(*U03, X60-X84, Y87.0)	9	139	2.0	8	101	2.8	*	*	*
Essential (Primary) Hypertension and Hypertensive Renal Disease.....I10, I12)	10	93	1.3	*	*	*	9	59	1.7
Chronic Liver Disease and Cirrhosis(K70 & K73-K74)	*	*	*	10	51	1.4	*	*	*
Unspecified Dementia.....(F03)	*	*	*	*	*	*	10	56	1.6
All Other Causes	-	1,532	21.6	-	724	20.4	-	773	21.9

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 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 47, 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 47
South Dakota Resident Five Leading Causes of Death by Age Group, 2010

Rank	All Ages	1-24	25-34	35-44	45-54	55-64	65-74	75-84	85-94	95 & Over
1	Malignant Neoplasms (Cancer) 1,651	Accidents 48	Accidents 45	Accidents 36	Malignant Neoplasms (Cancer) 117	Malignant Neoplasms (Cancer) 276	Malignant Neoplasms (Cancer) 383	Malignant Neoplasms (Cancer) 493	Heart Disease 582	Heart Disease 181
2	Heart Disease 1,611	Intentional Self-Harm (Suicide) 35	Intentional Self-Harm (Suicide) 22	Intentional Self-Harm (Suicide) 22	Heart Disease 53	Heart Disease 170	Heart Disease 185	Heart Disease 409	Malignant Neoplasms (Cancer) 315	Alzheimer's Disease 77
3	Chronic Lower Respiratory Diseases 451	Heart Disease 6	**	#	Accidents 48	Accidents 38	Chronic Lower Respiratory Diseases 103	Chronic Lower Respiratory Diseases 160	Alzheimer's Disease 205	Malignant Neoplasms (Cancer) 40
4	Cerebro-vascular Diseases 411	*	**	#	Intentional Self-Harm (Suicide) 28	Diabetes Mellitus 33	Diabetes Mellitus 50	Cerebro-vascular Diseases 123	Cerebro-vascular Diseases 171	Cerebro-vascular Diseases 39
5	Alzheimer's Disease 401	*	***	Chronic Liver Disease and Cirrhosis 12	Chronic Liver Disease and Cirrhosis 27	^	Cerebro-vascular Diseases 36	Alzheimer's Disease 95	Chronic Lower Respiratory Diseases 125	Influenza and Pneumonia 30

* Note: The following causes tied for fourth place with 5 deaths: Congenital Malformations, Deformations, and Chromosomal Abnormalities and Malignant Neoplasms (Cancer)

**The following causes tied for third place with 7 deaths: Assault (Homicide) and Heart Disease

*** The following causes tied for fifth place with 5 deaths: Ill-defined and Unknown Causes of Mortality and Diabetes Mellitus

The following causes tied for third place with 18 deaths: Heart Disease and Malignant Neoplasms (Cancer)

^ The following causes tied for fifth place with 29 deaths: Chronic Lower Respiratory Diseases and Cerebrovascular Diseases

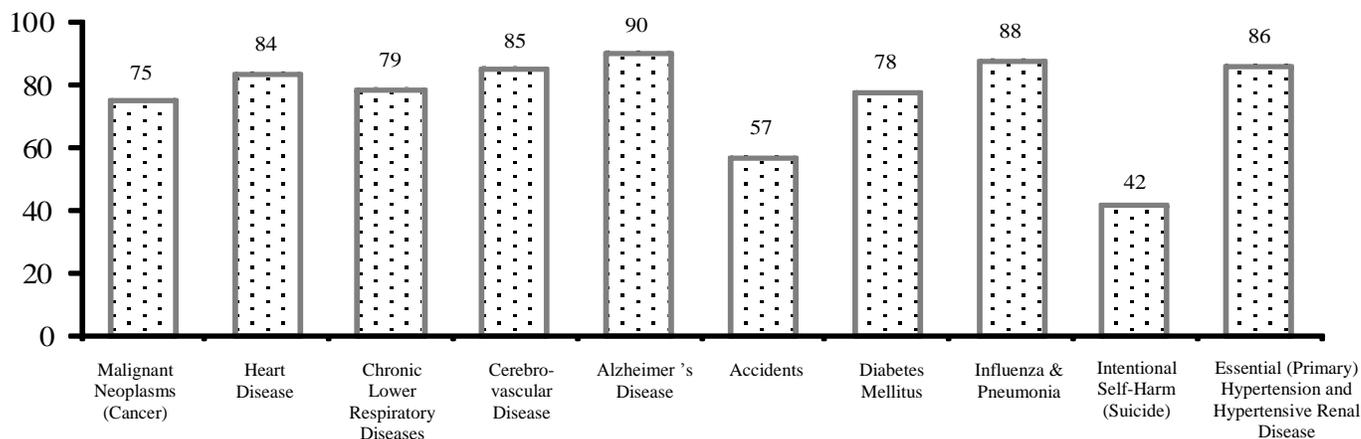
Source: South Dakota Department of Health, Office of Health Statistics

Median Age

Figure 8, below, presents data on the median age at death for the 10 leading causes of death for South Dakota residents in 2010. The median age for

accidents went from 50 in 2009 to 57 in 2010. Intentional self-harm (suicide) went from 34 in 2009 to 42 in 2010.

Figure 8
Median Age at Death for South Dakota Residents for the Leading Causes of Death, 2010



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

Table 48, below, shows the median age at death for South Dakota residents from the leading causes of death by race and gender. In 2010, the median age at death was 80 for all South Dakotans; for white residents the median age was 81, compared to 58 for American Indians. The overall median age at death stayed the same for whites and decreased by one for American Indians when compared to

their overall median age at death in 2009. The median age at death in 2010 for South Dakota resident males and females was 77 and 84, respectively. For both males and females, the median age at death increased by one year from 2009 to 2010.

Table 48
Median Age at Death for South Dakota Residents for the Leading Causes of Death by Race and Gender, 2010

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	58	77	84
Malignant Neoplasms (Cancer) (C00-C97)	75	75	68	74	76
Heart Disease (I00-I09, I11, I13, I20-I51)	84	84	64	80	88
Chronic Lower Respiratory Diseases (J40-J47)	79	80	75	80	79
Cerebrovascular Diseases (I60-I69)	85	85	81	83	87
Alzheimer's Disease (G30)	90	90	*	87	90
Accidents (V01-X59, Y85-Y86)	57	68	37	53	71
Diabetes Mellitus (E10-E14)	78	80	66	74	80
Influenza and Pneumonia (J09-J18)	88	88	*	87	88
Intentional Self-Harm (Suicide) (*U03, X60-X84, Y87.0)	42	46	20	42	*
Essential (Primary) Hypertension and Hypertensive Renal Disease (I10, I12)	86	87	*	*	89
Nephritis, Nephrotic Syndrome, and Nephrosis (N00-N07, N17-N19, N25-N27)	*	*	64	*	*
Chronic Liver Disease and Cirrhosis (K70 & K73-K74)	*	*	48	55	*
Unspecified Dementia (F03)	*	*	*	*	89
Septicemia (A40-A41)	*	*	59	*	*

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

Cancer led in YPLL (10,308 years) because many of the decedents were at a relatively young age at the time of death.

Figure 9
South Dakota Resident Years of Potential Life Lost (YPLL)
Before Age 75 for the Leading Causes of Death, 2010

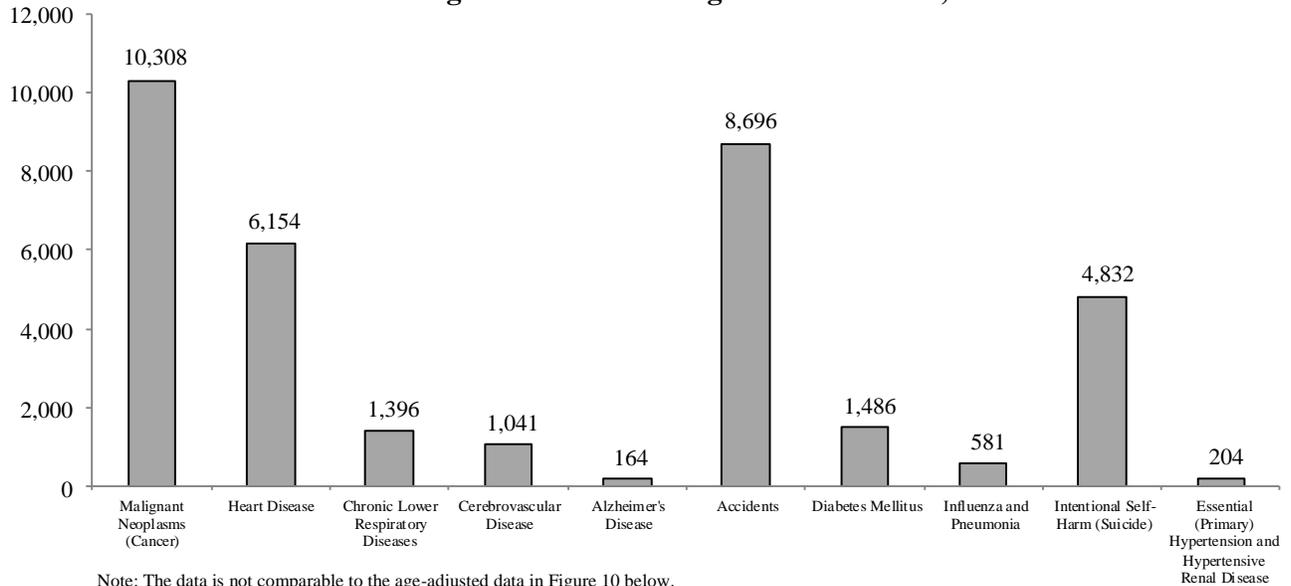
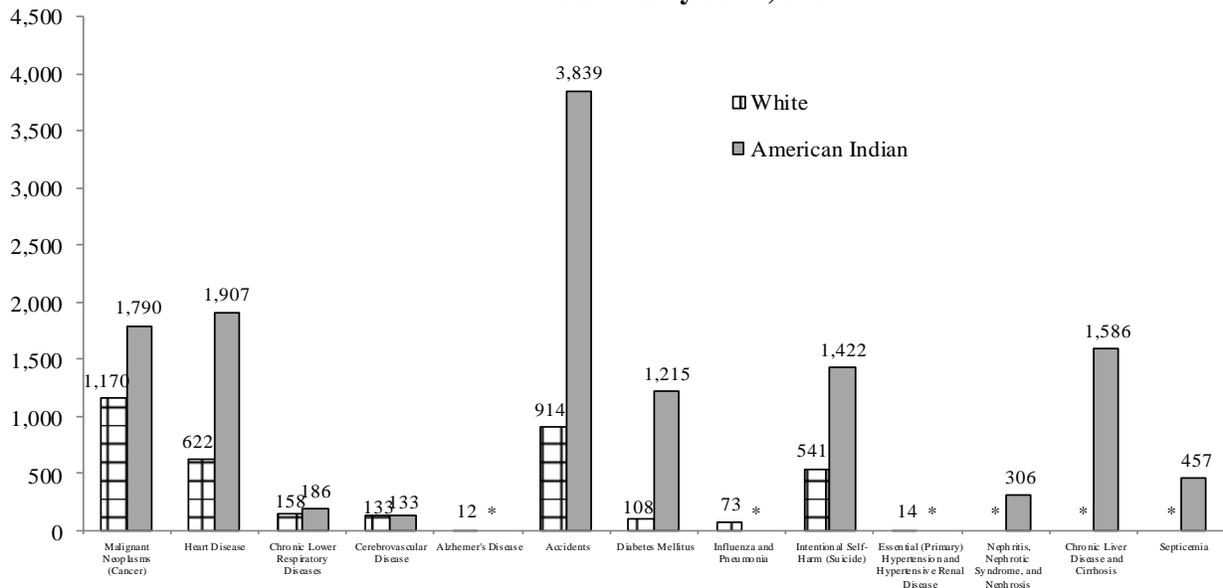


Figure 10, below, illustrates the years of potential life lost (YPLL) before the age 75 per 100,000 population for the top 10 causes of death by race. When comparing YPLL by race, American Indians exceeded whites substantially in YPLL for the leading causes of death.

American Indians' largest YPLL was accidents with 3,839 years while whites' largest YPLL was cancer with

1,170 years. Whites' second largest YPLL was accidents with 914 years while American Indians' second largest YPLL was heart disease with 1,907 years. Whites' third largest YPLL was heart disease with 622 years. Cancer was the third largest YPLL for American Indians with 1,790 years, which still exceeded whites' largest YPLL (cancer with 1,170 years).

Figure 10
Age-Adjusted Years of Potential Life Lost (YPLL) Before Age 75 for the Leading Causes of Death by Race, 2010



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 49, below, displays the 10 leading causes of death by place where death occurred in 2010. Overall, nursing home, long term

care, and hospice facility had the highest occurrence of deaths with 40.9 percent. Hospital followed closely with 36.2 percent.

Table 49
South Dakota Resident Deaths by Cause of Death and Place of Death, 2010

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)	7,087	100.0	2,564	36.2	2,898	40.9	1,329	18.8	291	4.1
Malignant Neoplasms (Cancer).....(C00-C97)	1,651	100.0	535	32.4	651	39.4	434	26.3	30	1.8
Heart Disease.....(I00-I09, I11, I13, I20-I51)	1,611	100.0	565	35.1	612	38.0	395	24.5	36	2.2
Chronic Lower Respiratory Diseases.....(J40-J47)	451	100.0	176	39.0	194	43.0	74	16.4	7	1.6
Cerebrovascular Diseases.....(I60-I69)	411	100.0	170	41.4	213	51.8	26	6.3	2	0.5
Alzheimer's Disease.....(G30)	401	100.0	33	8.2	346	86.3	19	4.7	3	0.7
Accidents.....(V01-X59, Y85-Y86)	391	100.0	162	41.4	47	12.0	45	11.5	137	35.0
Diabetes Mellitus.....(E10-E14)	241	100.0	76	31.5	112	46.5	49	20.3	4	1.7
Influenza and Pneumonia(J09-J18)	166	100.0	82	49.4	73	44.0	11	6.6	0	0.0
Intentional Self-Harm (Suicide)(*U03, X60-X84, Y87.0)	139	100.0	21	15.1	0	0.0	85	61.2	33	23.7
Essential (primary) Hypertension and Hypertensive Renal Disease.....(I10 & I12)	93	100.0	24	25.8	51	54.8	17	18.3	1	1.1
All Other Causes	1,532	100.0	720	47.0	599	39.1	174	11.4	38	2.5

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 unknown 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 1,205

deaths, or 17.0 percent, the certifier indicated “yes” or “probably” that tobacco use contributed to the death. Conversely, on 3,976 deaths, or 56.1 percent, the certifier indicated that tobacco use did not contribute to the death.

In the remaining 1,906 deaths, or 26.9 percent, the certifier was unsure if tobacco use contributed to the death.

Table 50, 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 73.0 percent, or 317 out of the 434

trachea, bronchus, and lung cancer deaths in 2010. In 65.2 percent, or 294 chronic lower respiratory disease deaths the certifier said “yes” or “probably” that tobacco use contributed to the death.

Table 50
South Dakota Resident Leading Causes of Death as They Relate to Tobacco Use, 2010
(Did Tobacco Use Contribute to Death)

Cause of Death	Yes/Probably		Total Deaths	
	Number	Percent	Number	Percent
Total	1,205	17.0	7,087	100.0
Malignant Neoplasms (cancer).....(C00-C97)	441	26.7	1,651	100.0
Trachea, Bronchus, and Lung.....(C33-C34)	317	73.0	434	100.0
Colon, Rectum, Anus.....(C18-C21)	12	7.1	168	100.0
Lip, Oral Cavity, and Pharynx.....(C00-C14)	12	57.1	21	100.0
Bladder.....(C67)	11	29.7	37	100.0
Esophagus.....(C15)	10	22.2	45	100.0
Chronic Lower Respiratory Diseases.....(J40-J47)	294	65.2	451	100.0
Emphysema.....(J43)	22	68.8	32	100.0
Heart Disease.....(I00-I09, I11, I13, I20-I51)	223	13.8	1,611	100.0
Atherosclerotic Heart Disease.....(I25.1)	94	17.3	544	100.0
Acute Myocardial Infarction.....(I21-I22)	70	13.1	534	100.0
Atherosclerotic Cardiovascular Disease.....(I25.0)	13	28.3	46	100.0
Cerebrovascular Diseases.....(I60-I69)	35	8.5	411	100.0
Diabetes Mellitus.....(E10-E14)	32	13.3	241	100.0
Influenza and Pneumonia.....(J09-J18)	17	10.2	166	100.0
Pneumonia.....(J12-J18)	16	9.8	164	100.0
Chronic Liver Disease and Cirrhosis....(K70 & K73-K74)	17	20.5	83	100.0
Alcoholic Liver Disease.....(K70)	15	27.3	55	100.0
Accidents.....(V01-X59, Y85-Y86)	13	3.3	391	100.0
Alzheimer’s Disease.....(G30)	10	2.5	401	100.0
Other Interstitial Pulmonary Diseases with Fibrosis.....(J84.1)	9	21.4	42	100.0

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

Method of Disposition

Table 51, on the next page, displays the different methods of disposition for the last 10 years. The top disposition in 2010 was burial with 4,548 deaths. The second highest

method of disposition in 2010 was cremation with 2,044 deaths. Since 2001, cremation has increased from 15.9 percent of all dispositions to 28.8 percent in 2010.

Table 51
South Dakota Resident Deaths by Disposition, 2001-2010

Year	Type of Disposition						
	Total Deaths	Burial	Cremation	Removal from State	Donation	Entombment	Other
2010	7,087	4,548	2,044	433	47	10	0
2009	6,913	4,545	1,855	464	34	8	0
2008	7,056	4,857	1,662	485	35	9	0
2007	6,800	4,775	1,474	481	46	18	0
2006	7,038	5,127	1,440	431	30	6	0
2005	7,074	5,373	1,515	151	27	7	0
2004	6,811	5,305	1,348	120	22	12	0
2003	7,109	5,675	1,321	76	26	**	8
2002	6,886	5,627	1,148	72	24	**	11
2001	6,915	5,700	1,102	79	20	**	10

Note: Failure of deaths to add to total is due to the disposition not stated.
 ** Prior to 2004 entombment was included in the other category.
 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 52a-52c, on pages 64 through 67, display South Dakota resident deaths, the crude death rate, and the age-adjusted death rate for 15 leading causes and selected components from 2000 to 2010.

The crude and age-adjusted rates for all causes in 2010 were 870.4 and 713.4 respectively, which are up from the crude and age-adjusted rates in 2009 of 851.0 and 688.6, respectively.

Table 52a
South Dakota Resident Deaths for 15 Leading Causes and Selected Components, 2000-2010

Cause of Death	Number of Deaths										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
All Causes	7,014	6,915	6,886	7,109	6,811	7,074	7,038	6,800	7,056	6,913	7,087
Malignant Neoplasms (Cancer)	1,604	1,598	1,561	1,645	1,559	1,610	1,561	1,606	1,561	1,506	1,651
Trachea, Bronchus, and Lung	396	414	403	406	423	467	435	425	445	387	434
Colon, Rectum, and Anus	207	179	168	176	151	176	150	165	152	157	168
Female Breast	129	88	109	120	105	117	95	113	118	95	103
Pancreas	82	99	85	95	102	90	89	93	87	110	98
Prostate	101	115	109	106	102	94	103	94	78	84	96
Leukemia	66	72	67	80	71	63	66	76	60	57	82
Heart Disease	2,105	1,984	1,933	1,942	1,775	1,764	1,743	1,623	1,677	1,778	1,611
Chronic Lower Respiratory Diseases	387	360	382	379	393	440	375	458	486	440	451

Table 52a (continued)
South Dakota Resident Deaths for 15 Leading Causes and Selected Components, 2000-2010

Cause of Death	Number of Deaths										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Cerebrovascular Diseases	561	491	518	475	463	511	437	408	391	417	411
Alzheimer's Disease	180	159	169	175	255	289	330	345	401	402	401
Accidents	318	382	344	390	407	396	443	357	372	348	391
Motor Vehicle Accidents	177	187	185	215	185	181	186	145	125	133	141
Diabetes Mellitus	179	210	193	201	227	239	261	246	216	200	241
Influenza and Pneumonia	208	186	239	223	180	242	173	189	186	135	166
Intentional Self-Harm (Suicide)	95	108	94	103	114	123	125	101	123	128	139
Essential (Primary) Hypertension and Hypertensive Renal Disease	34	39	27	39	55	83	79	70	65	52	93
Unspecified Dementia	108	113	131	152	85	30	74	70	80	90	91
Parkinson's Disease	56	55	60	56	65	60	75	62	69	65	85
Chronic Liver Disease and Cirrhosis	82	81	77	81	97	83	83	94	100	79	83
Nephritis, Nephrotic Syndrome, and Nephrosis	130	102	128	131	93	54	60	74	90	99	72
Septicemia	50	69	68	69	42	52	65	64	54	63	66

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

Table 52b
South Dakota Resident Crude Death Rates for 15 Leading Causes and Selected Components, 2000-2010

Cause of Death	Crude Death Rates										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
All Causes	929.2	911.1	903.5	926.9	879.7	906.8	892.6	853.2	877.0	851.1	870.4
Malignant Neoplasms (Cancer)	212.5	210.5	204.8	214.5	201.3	206.4	198.0	201.5	194.0	185.4	202.8
Trachea, Bronchus, and Lung	52.5	54.5	52.9	52.9	54.6	59.9	55.2	53.3	55.3	47.6	53.3
Colon, Rectum, and Anus	27.4	23.6	22.0	22.9	19.5	22.6	19.0	20.7	18.9	19.3	20.6
Female Breast	33.9	23.0	28.4	31.2	27.0	29.9	24.0	28.3	29.3	23.4	25.3
Pancreas	10.9	13.0	11.2	12.4	13.2	11.5	11.3	11.7	10.8	13.5	12.0
Prostate	27.0	30.5	28.8	27.8	26.4	24.2	26.2	23.7	19.4	20.7	23.6
Leukemia	8.7	9.5	8.8	10.4	9.2	8.1	8.4	9.5	7.5	7.0	10.1
Heart Disease	278.9	261.4	253.6	253.2	229.2	226.1	221.0	203.6	208.4	218.9	197.9
Chronic Lower Respiratory Diseases	51.3	47.4	50.1	49.4	50.8	56.4	47.6	57.5	60.4	54.2	55.4

Table 52b (continued)
South Dakota Resident Crude Death Rates for 15 Leading Causes and Selected Components, 2000-2010

Cause of Death	Crude Death Rates										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Cerebrovascular Diseases	74.3	64.7	68.0	61.9	59.8	65.5	55.4	51.2	48.6	51.3	50.5
Alzheimer's Disease	23.8	20.9	22.2	22.8	32.9	37.0	41.9	43.3	49.8	49.5	49.3
Accidents	42.1	50.3	45.1	50.8	52.6	50.8	56.2	44.8	46.2	42.8	48.0
Motor Vehicle Accidents	23.4	24.6	24.3	28.0	23.9	23.2	23.6	18.2	15.5	16.4	17.3
Diabetes Mellitus	23.7	27.7	25.3	26.2	29.3	30.6	33.1	30.9	26.8	24.6	29.6
Influenza and Pneumonia	27.6	24.5	31.4	29.1	23.2	31.0	21.9	23.7	23.1	16.6	20.4
Intentional Self-Harm (Suicide)	12.6	14.2	12.3	13.4	14.7	15.8	15.9	12.7	15.3	15.8	17.1
Essential (Primary) Hypertension and Hypertensive Renal Disease	4.5	5.1	3.5	5.1	7.1	10.6	10.0	8.8	8.1	6.4	11.4
Unspecified Dementia	14.3	14.9	17.2	19.8	11.0	3.8	9.4	8.8	9.9	11.1	11.2
Parkinson's Disease	7.4	7.2	7.9	7.3	8.4	7.7	9.5	7.8	8.6	8.0	10.4
Chronic Liver Disease and Cirrhosis	10.9	10.7	10.1	10.6	12.5	10.6	10.5	11.8	12.4	9.7	10.2
Nephritis, Nephrotic Syndrome, and Nephrosis	17.2	13.4	16.8	17.1	12.0	6.9	7.6	9.3	11.2	12.2	8.8
Septicemia	6.6	9.1	8.9	9.0	5.4	6.7	8.2	8.0	6.7	7.8	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 52c
South Dakota Resident Age-Adjusted Death Rates for 15 Leading Causes and Selected Components, 2000-2010

Cause of Death	Age-Adjusted Death Rates										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
All Causes	804.8	786.2	771.8	787.1	742.3	758.0	732.6	695.1	712.1	688.6	713.4
Malignant Neoplasms (Cancer)	191.4	188.9	182.3	190.0	176.6	180.3	169.6	170.9	164.8	156.5	170.6
Trachea, Bronchus, and Lung	48.0	50.1	48.1	47.6	49.2	52.8	48.0	46.3	47.3	40.7	45.4
Colon, Rectum, and Anus	24.3	20.6	19.0	19.9	16.4	19.4	15.9	17.2	15.9	15.8	17.0
Female Breast	28.1	19.2	24.0	25.9	22.0	23.8	19.2	20.9	23.3	17.6	19.7
Pancreas	9.8	12.0	10.0	10.8	11.6	10.1	9.5	9.8	8.9	11.3	10.2
Prostate	29.3	33.0	31.0	29.6	27.5	24.6	26.7	23.7	19.2	20.3	23.7
Leukemia	7.7	8.4	7.9	9.3	7.8	7.0	7.0	8.1	6.1	6.0	8.6
Heart Disease	234.6	218.9	209.9	207.8	185.8	181.8	175.0	159.5	162.2	168.3	154.9
Chronic Lower Respiratory Diseases	44.1	41.3	42.9	42.5	42.6	47.4	39.3	47.1	49.0	43.9	46.0

Table 52c (continued)
South Dakota Resident Age-Adjusted Death Rates for 15 Leading Causes and Selected Components, 2000-2010

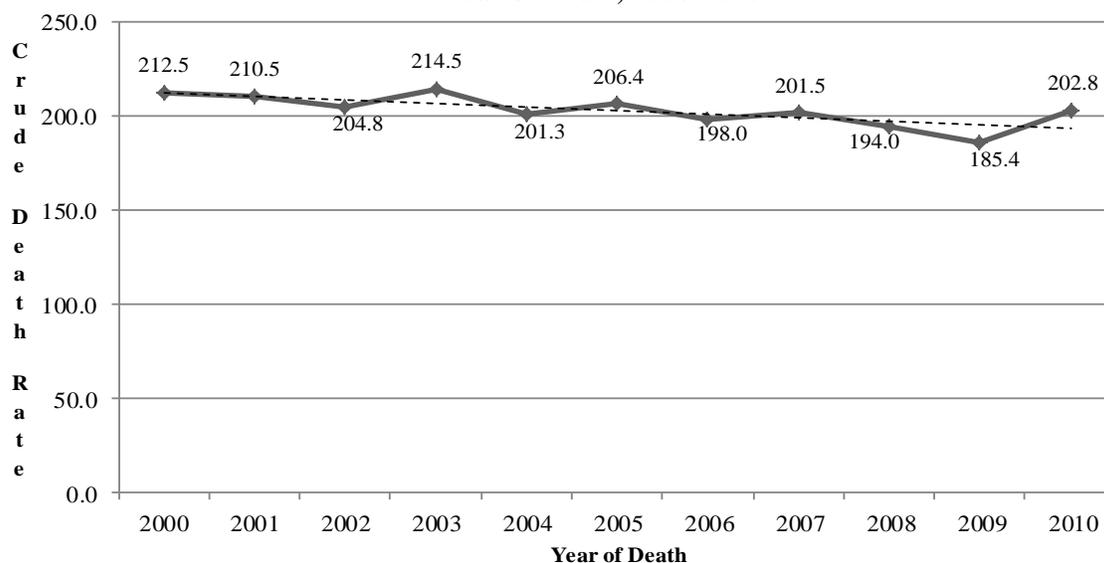
Cause of Death	Age-Adjusted Death Rates										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Cerebrovascular Diseases	61.7	52.8	54.4	49.7	47.3	51.6	42.3	38.9	37.6	38.8	39.2
Alzheimer's Disease	18.7	16.2	16.9	17.3	24.5	27.5	30.0	30.7	35.9	35.2	36.2
Accidents	40.8	47.0	42.8	48.4	49.4	47.2	51.5	40.9	41.8	40.0	44.3
Motor Vehicle Accidents	23.2	24.4	23.8	27.8	23.7	23.0	23.2	17.9	15.1	16.6	17.0
Diabetes Mellitus	20.5	24.0	22.4	22.7	24.8	25.6	26.8	25.5	21.8	20.4	24.6
Influenza and Pneumonia	22.3	19.5	25.1	22.5	18.1	23.7	16.5	18.1	17.3	12.6	15.5
Intentional Self-Harm (Suicide)	12.6	14.4	12.2	13.6	15.0	15.5	15.9	12.3	15.4	16.0	17.3
Essential (Primary) Hypertension and Hypertensive Renal Disease	3.5	4.1	2.7	3.8	5.6	7.9	7.3	6.6	6.2	4.8	8.8
Unspecified Dementia	11.1	11.3	12.9	14.6	8.0	2.7	6.5	6.2	6.9	7.9	8.3
Parkinson's Disease	6.2	5.8	6.4	6.0	6.6	6.1	7.5	6.1	6.7	6.2	8.2
Chronic Liver Disease and Cirrhosis	10.9	10.7	10.0	10.2	12.0	10.3	10.2	11.2	11.6	8.7	9.7
Nephritis, Nephrotic Syndrome, and Nephrosis	14.7	11.0	13.7	13.7	9.9	5.5	6.0	7.2	8.9	9.4	7.1
Septicemia	5.9	7.7	7.6	7.6	4.7	5.6	6.8	6.5	5.5	6.4	6.7

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

Figure 11, below, displays the crude death rate for cancer from 2000 through 2010. On pages 16 through 17, figures 5a through 5f

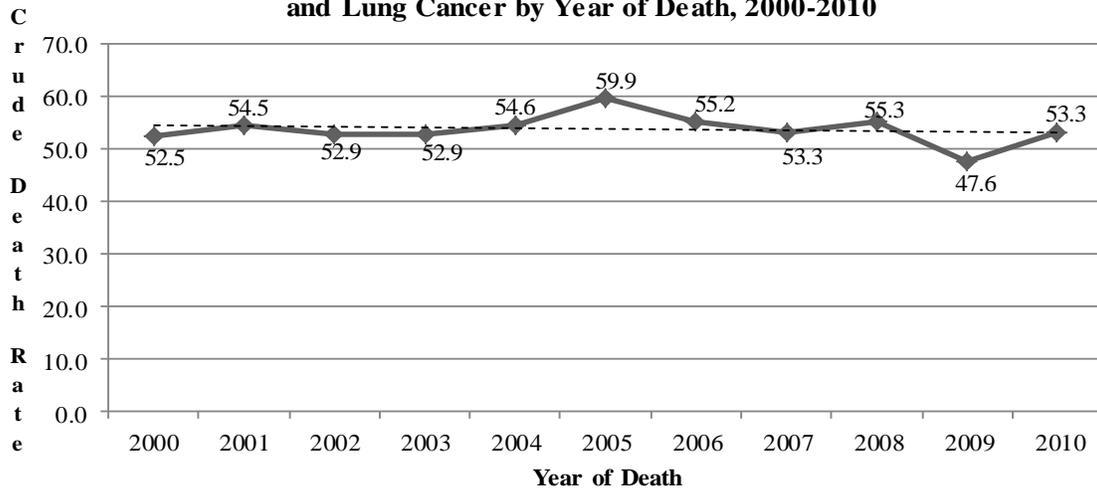
display the crude death rates for the six primary types of cancer deaths to South Dakota residents.

Figure 11
South Dakota Resident Crude Death Rate Due to Malignant Neoplasms by Year of Death, 2000-2010



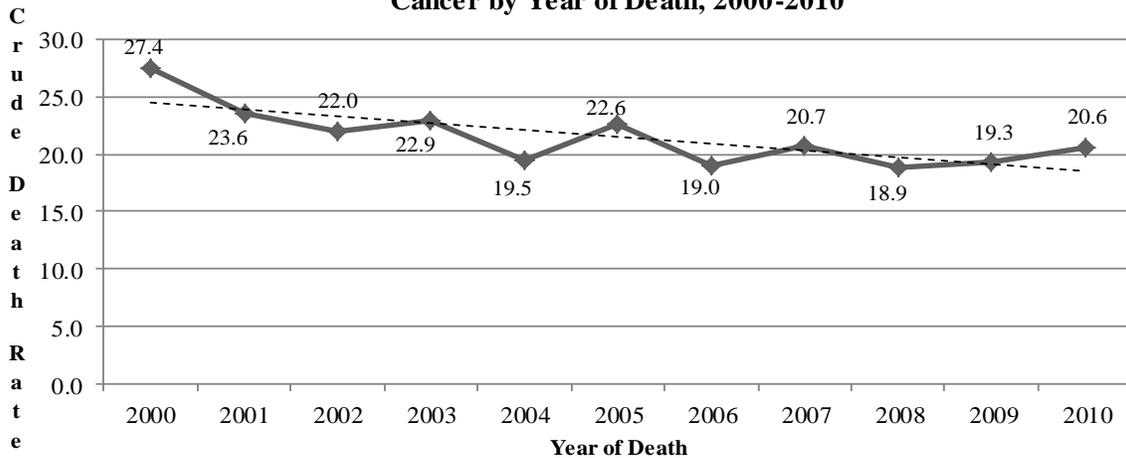
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
Source: South Dakota Department of Health, Office of Health Statistics

Figure 11a
South Dakota Resident Crude Death Rate Due to Trachea, Bronchus, and Lung Cancer by Year of Death, 2000-2010



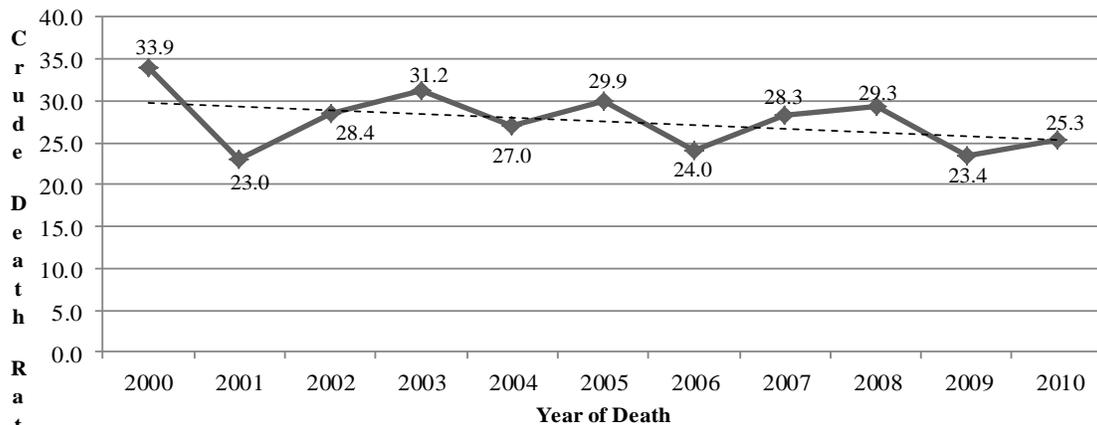
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 11b
South Dakota Resident Crude Death Rate Due to Colon, Rectum, and Anus Cancer by Year of Death, 2000-2010



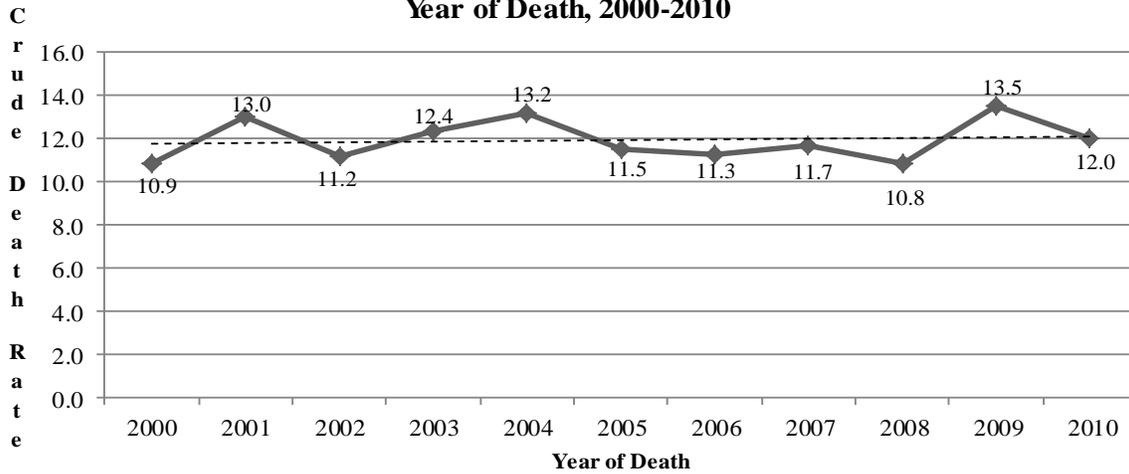
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 11c
South Dakota Resident Crude Death Rate Due to Female Breast Cancer by Year of Death, 2000-2010



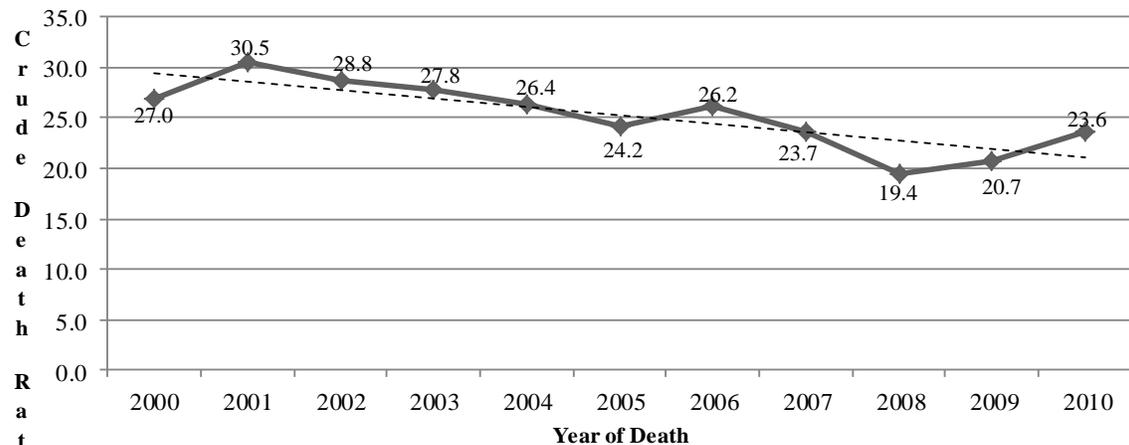
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 11d
South Dakota Resident Crude Death Rate Due to Pancreas Cancer by
Year of Death, 2000-2010



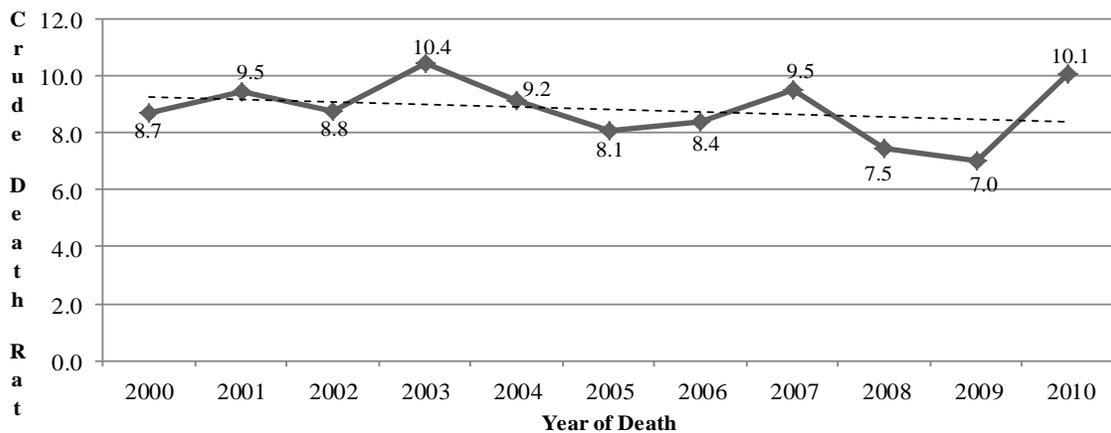
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 11e
South Dakota Resident Crude Death Rate Due to Prostate Cancer by
Year of Death, 2000-2010



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 11f
South Dakota Resident Crude Death Rate Due to Leukemia by Year of
Death, 2000-2010

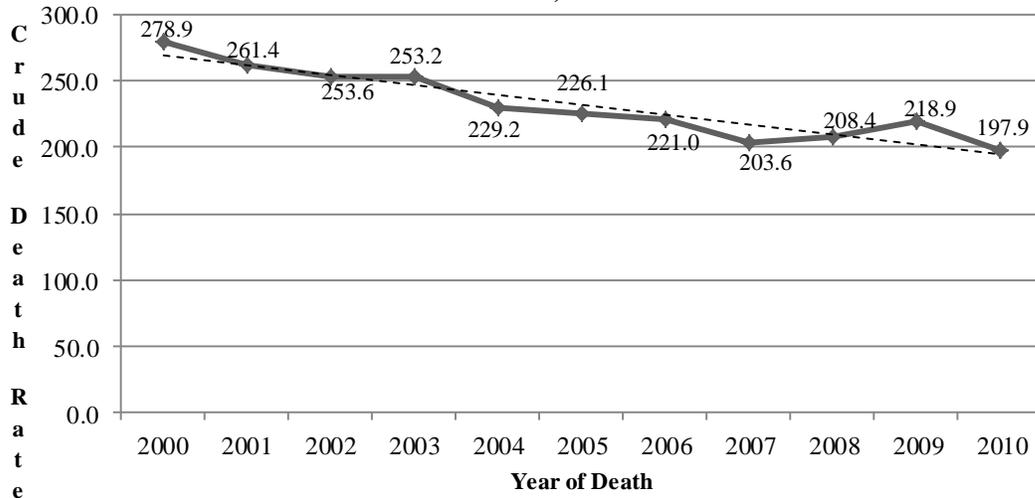


Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figures 12 through 25, on the following pages, display the crude death rates for the

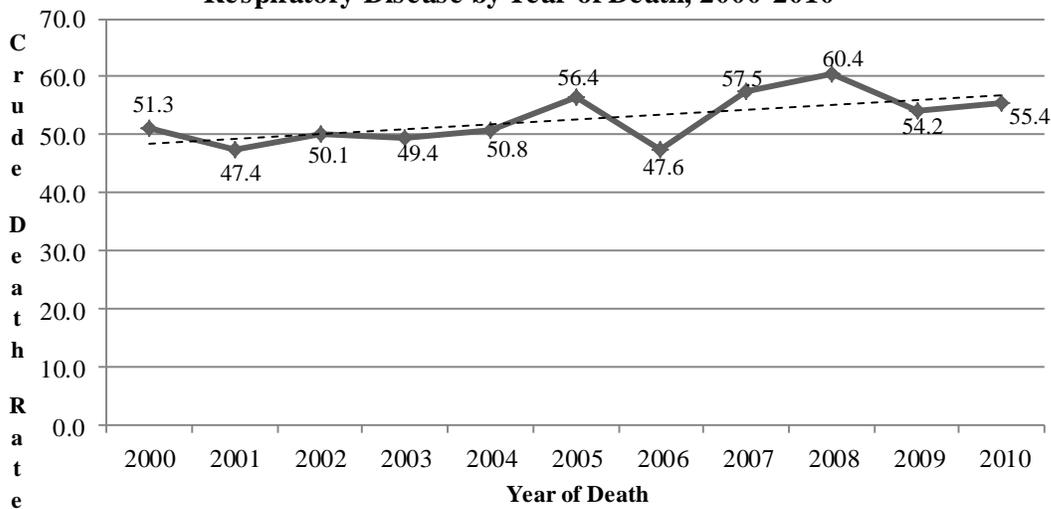
primary leading causes of death to South Dakota residents from 2000 to 2010.

Figure 12
South Dakota Resident Crude Death Rate Due to Heart Disease by Year of Death, 2000-2010



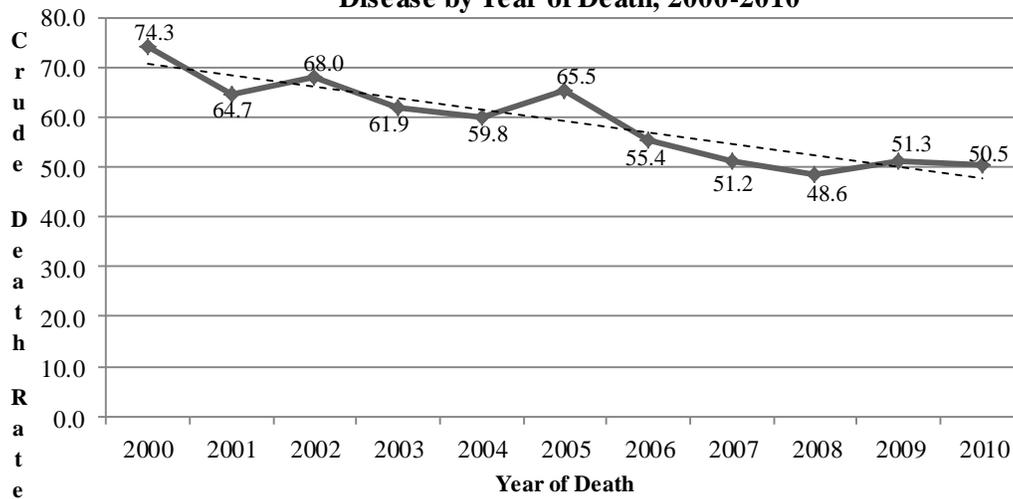
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 13
South Dakota Resident Crude Death Rate Due to Chronic Lower Respiratory Disease by Year of Death, 2000-2010



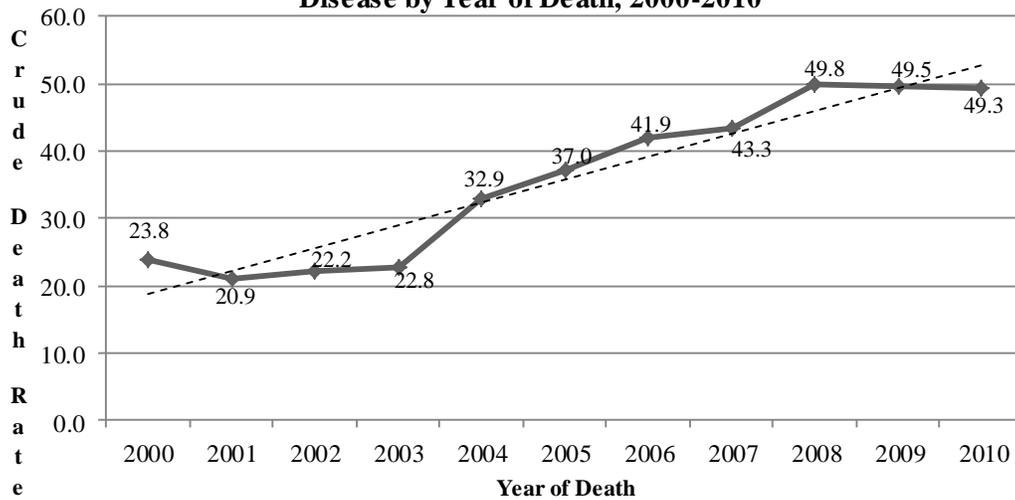
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 14
South Dakota Resident Crude Death Rate Due to Cerebrovascular Disease by Year of Death, 2000-2010



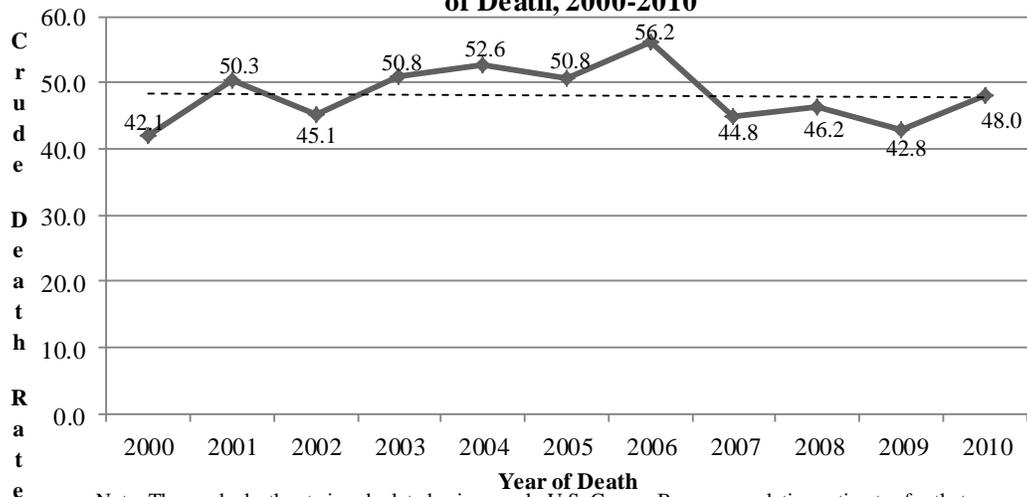
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 15
South Dakota Resident Crude Death Rate Due to Alzheimer's Disease by Year of Death, 2000-2010



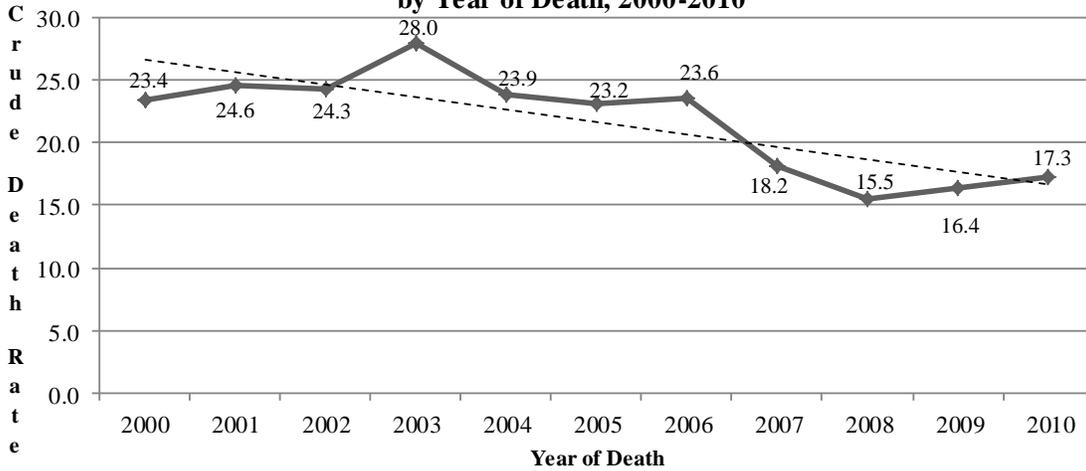
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 16
South Dakota Resident Crude Death Rate Due to Accidents by Year of Death, 2000-2010



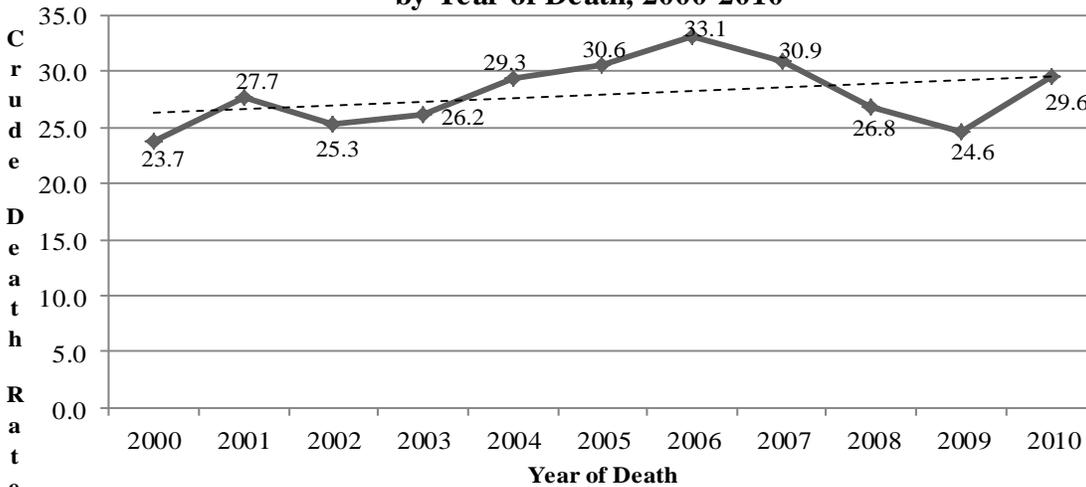
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 16a
South Dakota Resident Crude Death Rate Due to Motor Vehicle Accidents
by Year of Death, 2000-2010



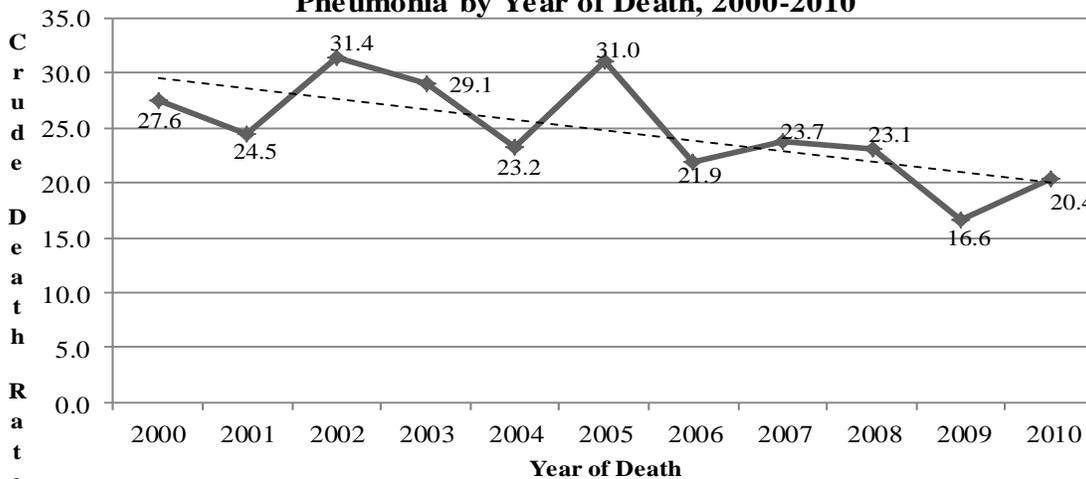
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 17
South Dakota Resident Crude Death Rate Due to Diabetes Mellitus
by Year of Death, 2000-2010



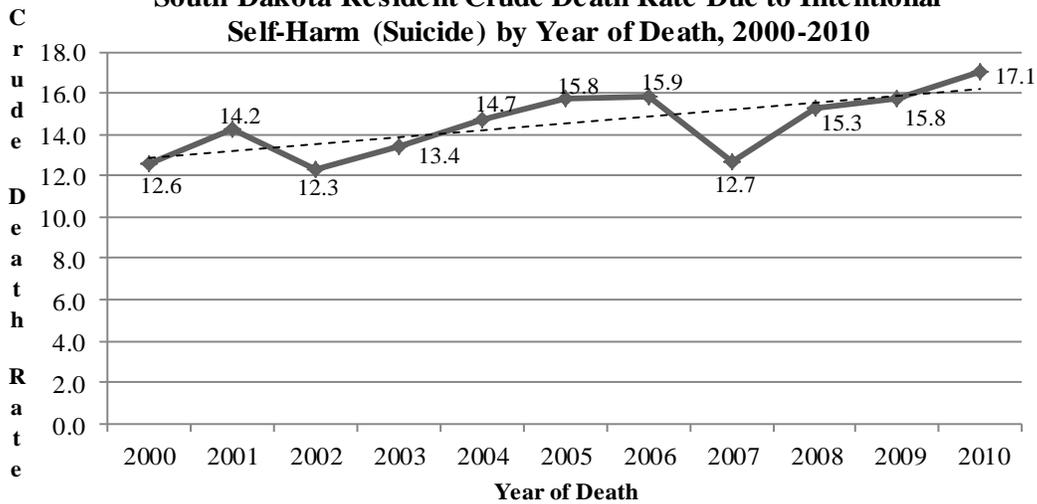
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 18
South Dakota Resident Crude Death Rate Due to Influenza and
Pneumonia by Year of Death, 2000-2010



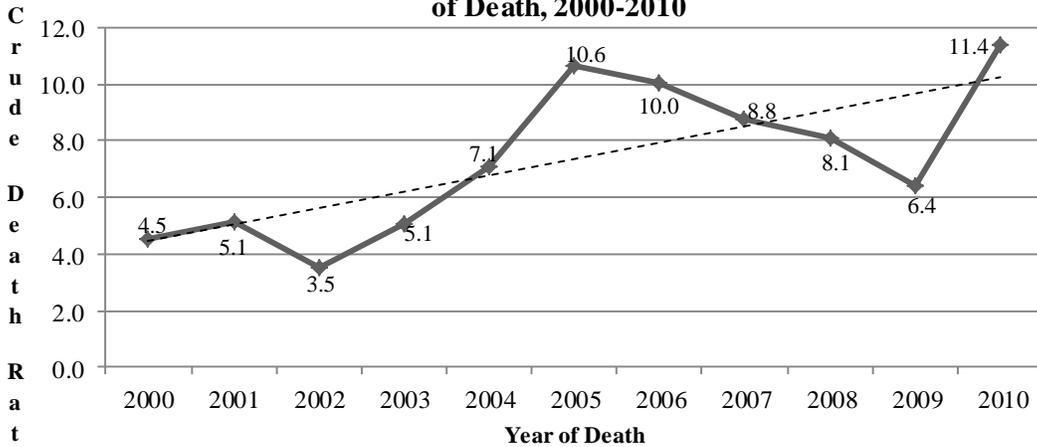
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 19
South Dakota Resident Crude Death Rate Due to Intentional Self-Harm (Suicide) by Year of Death, 2000-2010



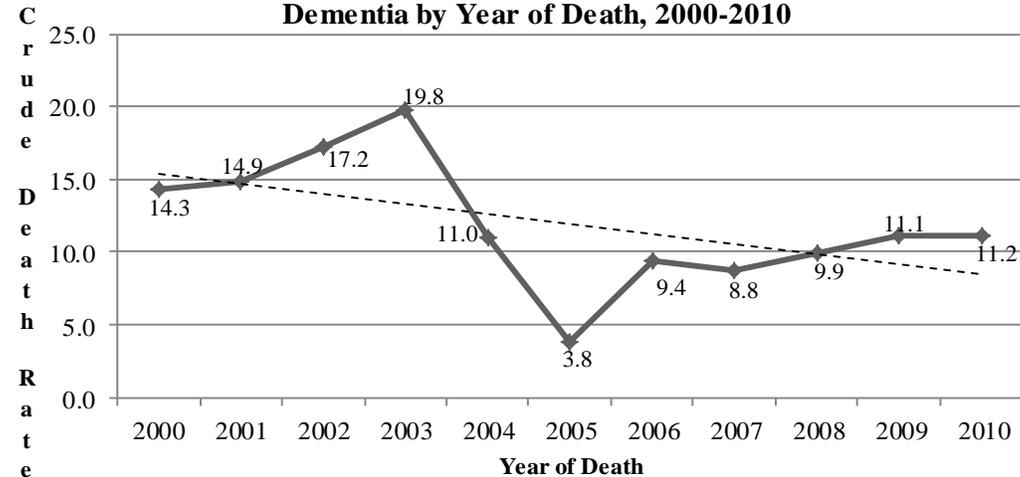
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 20
South Dakota Resident Crude Death Rate Due to Essential (Primary) Hypertension and Hypertensive Renal Disease by Year of Death, 2000-2010



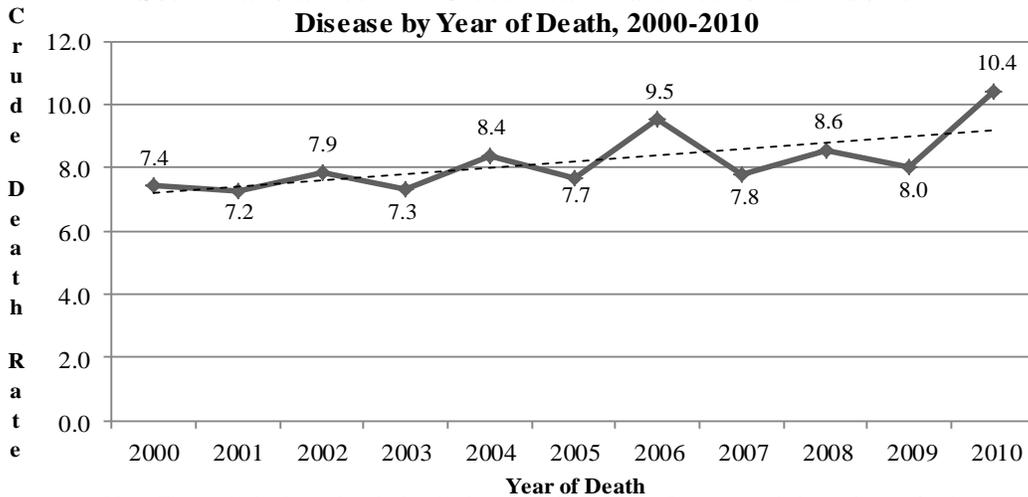
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 21
South Dakota Resident Crude Death Rate Due to Unspecified Dementia by Year of Death, 2000-2010



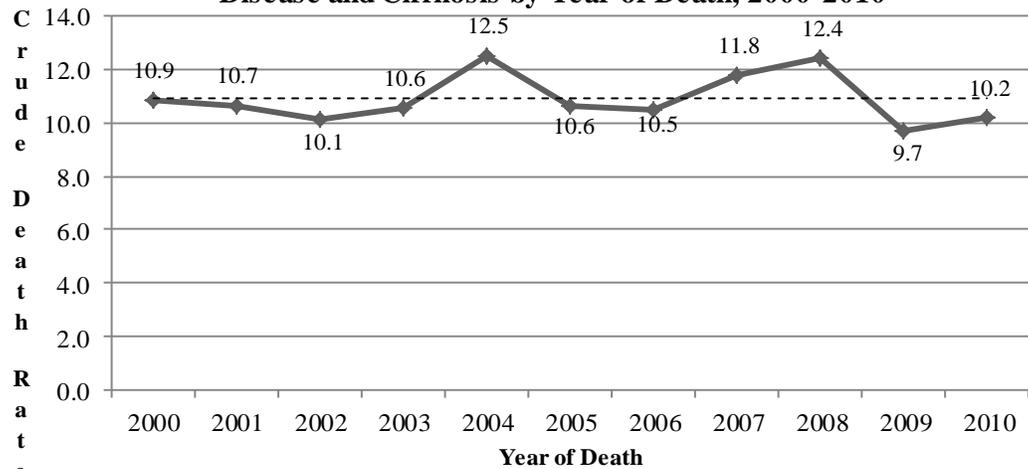
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 22
South Dakota Resident Crude Death Rate Due to Parkinson's Disease by Year of Death, 2000-2010



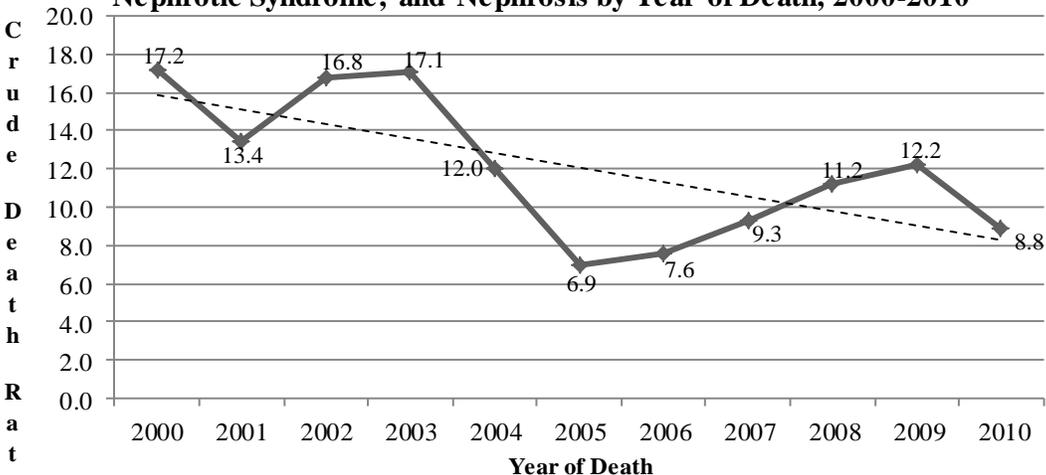
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 23
South Dakota Resident Crude Death Rate Due to Chronic Liver Disease and Cirrhosis by Year of Death, 2000-2010



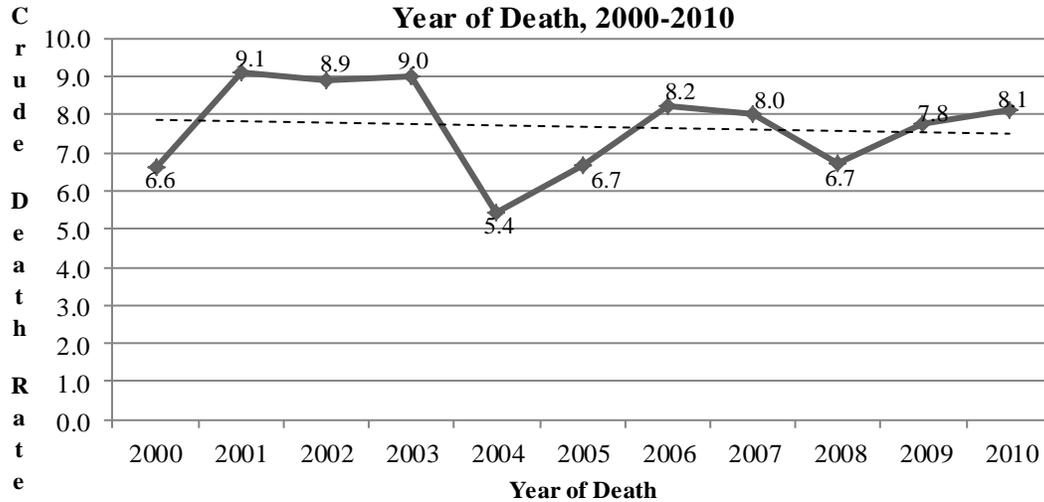
Note: The crude death rate is calculated using yearly U.S. Census Bureau population estimates for that year.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 24
South Dakota Resident Crude Death Rate Due to Nephritis, Nephrotic Syndrome, and Nephrosis by Year of Death, 2000-2010



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 Septicemia by
Year of Death, 2000-2010



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

