

**Table 7 : Cancer Deaths and Mortality Rates by County
South Dakota, 2010 and 2006-2010 Average**

VII. CANCER MORTALITY

Cancer age-adjusted death rates for 2010 ranged from a low of 0.0 in Ziebach County to a high of 300.0 in Buffalo County. South Dakota's age adjusted death rate was 169.7 in 2010 compared to a 5-year death rate of 165.9.

In 2010, only two counties had a significantly lower rate than that of the entire state and none had a significantly higher rate. The five-year rates show eight counties having significantly lower rates and two counties with significantly higher rates. South Dakota's mortality rate for 2006-2010 was 165.9 per 100,000 persons.

The United States mortality rate for 2010 is not available. The United States mortality rate was 173.1 and the South Dakota mortality rate was 156.4 per 100,000 persons in 2009. South Dakota's mortality rate for 2010 is 169.7 per 100,000 persons.

The 2010 mortality rates are displayed in a state map on page 15 of this report.

County	2010		2006-2010 [^]	
	Deaths	Rate	Deaths	Rate
South Dakota	1,650	169.7	1,577	165.9
Aurora	7	163.5	6	130.7
Beadle	38	147.8	44	177.6
Bennett	5	160.0	6	173.8
Bon Homme	14	112.3	19	166.8
Brookings	40	149.7	43	158.9
Brown	80	167.7	78	167.1
Brule	10	136.0	12	165.5
Buffalo	4	300.0	3	248.5
Butte	28	209.6	23	191.5
Campbell	2	68.8	3	105.4
Charles Mix	28	223.3	22	175.7
Clark	9	128.0	9	134.6
Clay	19	159.5	19	163.3
Codington	64	190.5	58	182.1
Corson	7	186.0	7	199.3
Custer	27	222.1	23	192.9
Davison	52	192.3	45	173.4
Day	12	113.4	16	162.4
Deuel	8	118.6	10	149.1
Dewey	9	200.5	10	223.4
Douglas	9	228.0	9	168.4
Edmunds	6	93.6	8	120.0
Fall River	26	199.9	25	187.1
Faulk	8	153.9	6	126.3
Grant	17	148.2	16	138.7
Gregory	19	248.1	16	190.8
Haakon	6	144.8	7	183.9
Hamlin	8	105.5	13	168.5
Hand	8	106.6	8	118.1
Hanson	5	135.8	6	167.3
Harding	1	68.6	*	73.8
Hughes	30	156.6	29	143.7
Hutchinson	24	160.8	23	155.9
Hyde	6	296.8	3	126.4
Jackson	6	162.8	6	211.5
Jerauld	5	133.9	7	196.0
Jones	2	121.7	3	140.1
Kingsbury	19	210.0	17	180.7
Lake	36	220.1	24	152.4
Lawrence	49	145.1	51	163.4
Lincoln	48	131.4	46	171.4
Lyman	5	117.5	6	142.9
McCook	14	154.7	17	205.5
McPherson	3	47.8	3	57.3
Marshall	13	183.0	11	153.8
Meade	36	136.4	45	187.4
Mellette	6	260.4	4	184.4
Miner	11	253.6	10	207.1
Minnehaha	309	188.9	293	167.0
Moody	16	198.2	13	164.5
Pennington	203	179.4	175	163.1
Perkins	16	265.4	9	146.0
Potter	3	45.1	9	181.7
Roberts	26	184.1	24	180.2
Sanborn	4	118.4	5	134.9
Shannon	10	125.6	14	234.8
Spink	18	159.1	16	149.3
Stanley	4	98.7	7	208.9
Sully	2	82.7	3	141.5
Todd	11	240.0	11	206.4
Tripp	16	164.8	15	162.5
Turner	22	162.8	19	136.9
Union	37	222.7	33	202.4
Walworth	14	127.2	13	136.7
Yankton	50	172.9	42	148.1
Ziebach	0	0.0	*	169.4

* Counts less than three are suppressed. Mortality rates with counts less than 20 are generally considered unstable.

[^] Number of the cases and rates are averaged over the five-year period.

▲ Rate significantly higher; ▼ Rate significantly lower

Rates per 100,000 age-adjusted to 2000 US standard population and SD 2010 census and estimated populations.

Source: South Dakota Department of Health.

Table 8: Age-adjusted Mortality Rates by County for Selected Sites, 2010

	Colorectal		Lung and Bronchus		Female Breast		Prostate		Bladder		NHL	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
South Dakota	165	16.4	434	45.6	103	19.6	96	23.6	37	3.8	63	6.3
Aurora	0	0.0	3	68.5	0	0.0	*	55.1	0	0.0	0	0.0
Beadle	3	12.1	6	26.7	4	29.1	*	8.8	*	7.8	0	0.0
Bennett	*	31.9	*	31.9	0	0.0	0	0.0	0	0.0	0	0.0
Bon Homme	*	13.1	*	21.3	0	0.0	0	0.0	0	0.0	*	11.2
Brookings	6	21.0	9	34.4	*	4.2	*	17.4	0	0.0	*	2.8
Brown	11	21.0	22	47.8	6	24.2	5	26.4	3	5.7	*	4.4
Brule	0	0.0	4	61.4	0	0.0	0	0.0	0	0.0	*	8.4
Buffalo	*	65.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Butte	*	7.8	9	67.9	*	17.5	*	16.3	*	6.8	3	24.7
Campbell	0	0.0	*	31.3	0	0.0	0	0.0	0	0.0	0	0.0
Charles Mix	4	32.4	4	33.8	*	24.9	*	36.2	0	0.0	*	14.0
Clark	*	17.5	*	12.7	*	31.3	0	0.0	0	0.0	0	0.0
Clay	3	23.4	*	16.4	3	50.5	0	0.0	*	10.8	0	0.0
Codington	8	24.6	17	51.0	3	16.1	3	19.7	0	0.0	3	9.4
Corson	0	0.0	*	32.5	*	110.9	0	0.0	0	0.0	0	0.0
Custer	*	12.8	4	27.5	*	30.6	*	18.0	0	0.0	*	7.7
Davison	7	26.4	11	41.4	*	3.1	3	28.9	0	0.0	3	11.0
Day	3	29.4	3	31.1	*	19.4	0	0.0	0	0.0	0	0.0
Deuel	0	0.0	4	59.7	*	34.2	0	0.0	0	0.0	0	0.0
Dewey	*	19.1	*	49.7	*	83.5	*	59.6	0	0.0	0	0.0
Douglas	3	46.1	*	39.1	*	46.8	0	0.0	0	0.0	0	0.0
Edmunds	*	29.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Fall River	0	0.0	8	63.7	3	46.3	*	18.4	*	7.7	*	7.7
Faulk	*	14.8	*	14.8	0	0.0	0	0.0	0	0.0	0	0.0
Grant	*	8.8	*	17.1	*	20.1	*	19.6	0	0.0	*	8.8
Gregory	3	32.8	6	63.4	0	0.0	*	30.2	0	0.0	3	30.0
Haakon	*	18.9	*	50.1	0	0.0	*	73.8	0	0.0	*	38.0
Hamlin	*	10.7	*	15.4	0	0.0	*	27.4	0	0.0	*	7.5
Hand	*	13.7	*	31.6	0	0.0	*	24.2	0	0.0	*	11.8
Hanson	*	27.9	*	57.1	0	0.0	0	0.0	0	0.0	0	0.0
Harding	0	0.0	*	68.6	0	0.0	0	0.0	0	0.0	0	0.0
Hughes	3	16.9	8	40.5	0	0.0	0	0.0	*	5.2	*	4.4
Hutchinson	*	8.8	7	54.6	*	30.2	4	61.2	*	7.2	3	14.1
Hyde	*	53.5	*	83.1	*	142.8	0	0.0	0	0.0	0	0.0
Jackson	0	0.0	5	134.9	0	0.0	*	52.5	0	0.0	0	0.0
Jerauld	*	59.0	*	31.0	0	0.0	0	0.0	0	0.0	0	0.0
Jones	0	0.0	0	0.0	0	0.0	0	0.0	*	52.5	0	0.0
Kingsbury	*	27.9	4	40.5	*	10.5	*	49.2	0	0.0	0	0.0
Lake	*	10.0	9	51.9	4	52.1	*	14.5	0	0.0	5	30.7
Lawrence	3	7.1	10	33.4	5	23.1	3	23.6	*	3.7	*	6.2
Lincoln	4	10.6	14	42.1	*	10.7	4	30.0	*	2.4	*	2.1
Lyman	*	44.4	*	29.8	*	76.8	0	0.0	0	0.0	0	0.0
McCook	0	0.0	4	51.2	*	23.2	*	48.5	*	12.2	*	15.5
McPherson	0	0.0	*	22.4	0	0.0	0	0.0	0	0.0	0	0.0
Marshall	*	29.0	*	31.7	*	31.8	*	30.4	0	0.0	0	0.0
Meade	4	14.0	10	38.0	0	0.0	*	22.7	*	4.3	0	0.0
Mellette	*	31.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Miner	3	59.4	3	65.8	*	59.8	0	0.0	*	34.9	0	0.0
Minnehaha	20	11.8	82	51.2	20	19.8	21	33.6	12	7.4	10	6.1
Moody	*	9.9	5	66.4	*	20.2	*	16.4	0	0.0	*	25.4
Pennington	15	12.9	68	61.7	13	22.3	10	19.9	3	2.8	4	3.6
Perkins	2	28.7	3	45.3	*	71.3	*	69.7	*	31.5	0	0.0
Potter	0	0.0	*	16.5	0	0.0	0	0.0	0	0.0	0	0.0
Roberts	*	6.4	10	70.7	*	27.8	*	34.2	0	0.0	*	7.8
Sanborn	*	30.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Shannon	*	10.4	3	38.2	0	0.0	0	0.0	0	0.0	0	0.0
Spink	5	39.7	4	44.8	0	0.0	*	37.8	0	0.0	0	0.0
Stanley	0	0.0	*	36.4	0	0.0	*	48.1	0	0.0	*	18.1
Sully	0	0.0	*	44.3	0	0.0	0	0.0	0	0.0	0	0.0
Todd	*	46.3	*	34.9	0	0.0	*	42.9	0	0.0	0	0.0
Tripp	3	24.3	*	12.8	*	51.8	*	28.3	*	18.7	*	26.5
Turner	*	17.1	6	45.6	*	21.9	*	31.9	0	0.0	0	0.0
Union	5	29.1	12	70.9	*	13.3	4	56.5	0	0.0	*	9.6
Walworth	*	18.8	4	40.0	*	10.9	*	19.4	*	7.0	0	0.0
Yankton	7	21.8	17	59.8	*	11.7	*	14.7	*	3.1	*	2.2
Ziebach	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Note: * Counts less than 3 are suppressed. Mortality rates with counts less than 20 are generally considered unstable. Rates per 100,000 age-adjusted to the 2000 US standard population and 2010 SD census population.

Source: South Dakota Department of Health

Table 9: Age-adjusted Mortality Rates by Site, Gender, and Race, South Dakota, 2010

	TOTAL		MALE		FEMALE		WHITE		AMERICAN INDIAN	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
Total	1,650	169.7	886	210.0	764	139.7	1,552	167.1	87	258.7
Oral Cavity	21	2.1	15	3.4	6	0.9	21	2.2	0	0.0
Lip	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tongue	5	0.6	3	0.8	2	0.3	5	0.6	0	0.0
Salivary Gland	3	0.3	3	0.7	0	0.0	3	0.3	0	0.0
Floor of Mouth	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Gum and Other Mouth	5	0.4	3	0.6	2	0.2	5	0.4	0	0.0
Nasopharynx	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hypopharynx	1	0.1	1	0.2	0	0.0	1	0.1	0	0.0
Tonsil	4	0.4	3	0.6	1	0.2	4	0.5	0	0.0
Oropharynx	2	0.2	1	0.2	1	0.1	2	0.2	0	0.0
Other Oral Cavity and Pharynx	1	0.1	1	0.2	0	0.0	1	0.1	0	0.0
Digestive System	419	42.4	227	52.1	192	33.8	389	41.2	28	78.9
Esophagus	45	4.7	35	8.4	10	1.9	44	4.9	1	1.8
Stomach	30	3.0	16	3.6	14	2.3	25	2.5	4	7.9
Small Intestine	7	0.7	5	1.2	2	0.3	6	0.7	1	4.3
Colorectal	165	16.4	89	20.9	76	12.7	158	16.4	7	16.9
Colon Excluding Rectum	142	14.0	74	17.2	68	11.2	138	14.3	4	10.6
Rectum and Rectosigmoid	23	2.4	15	3.7	8	1.4	20	2.2	3	6.3
Anus, Anal Canal and Anorectum	3	0.2	0	0.0	3	0.4	3	0.2	0	0.0
Liver and Intrahepatic Bile Duct	51	5.3	28	6.0	23	4.4	41	4.5	9	29.0
Gallbladder	8	0.9	2	0.4	6	1.2	7	0.8	1	3.2
Other Biliary	5	0.5	1	0.2	4	0.7	5	0.5	0	0.0
Pancreas	98	10.1	47	10.4	51	9.5	93	10.0	5	16.0
Retroperitoneum	1	0.1	0	0.0	1	0.2	1	0.1	0	0.0
Peritoneum, Omentum and Mesentery	6	0.6	4	1.0	2	0.3	6	0.6	0	0.0
Respiratory	442	46.5	268	63.9	174	33.6	410	45.1	26	75.2
Nose, Nasal Cavity and Middle Ear	1	0.1	0	0.0	1	0.2	1	0.1	0	0.0
Larynx	7	0.7	7	1.6	0	0.0	6	0.7	1	1.8
Lung and Bronchus	434	45.6	261	62.3	173	33.5	403	44.3	25	73.3
Pleura	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mediastinum and Other Resp Organs	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bones and Joints	8	0.8	7	1.6	1	0.1	8	0.9	0	0.0
Soft Tissue	8	0.8	2	0.5	6	1.1	6	0.7	2	6.6
Skin	32	3.2	16	3.7	16	2.9	32	3.4	0	0.0
Melanomas Skin	21	2.2	11	2.6	10	2.0	21	2.4	0	0.0
Other Nonepithelial Skin	11	1.0	5	1.2	6	0.9	11	1.1	0	0.0
Breast	107	11.0	4	1.0	103	19.6	103	11.2	3	8.0
Breast, Female	103	19.6			103	19.6	99	19.9	3	14.3
Breast, Male	4	1.0	4	1.0			4	1.0	0	0.0
Female	74	13.6			74	13.6	71	13.8	3	11.0
Cervix Uteri	7	1.5			7	1.5	6	1.4	1	3.2
Corpus and Uterus, NOS	21	3.8			21	3.8	21	4.0	0	0.0
Corpus Uteri	16	2.9			16	2.9	16	3.0	0	0.0
Uterus NOS	5	0.9			5	0.9	5	1.0	0	0.0
Ovary	34	6.1			34	6.1	32	6.1	2	7.8
Vagina	5	0.9			5	0.9	5	1.0	0	0.0
Vulva	4	0.6			4	0.6	4	0.7	0	0.0
Other Female Genital Organs	3	0.6			3	0.6	3	0.6	0	0.0

**Table 9: Age-adjusted Mortality Rates by Site, Gender, and Race, South Dakota, 2010
(continued)**

	TOTAL		MALE		FEMALE		WHITE		AMERICAN INDIAN	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
Male	96	23.6	96	23.6			93	23.5	3	33.6
Penis	0	0.0	0	0.0			0	0.0	0	0.0
Prostate	96	23.6	96	23.6			93	23.5	3	33.6
Testis	0	0.0	0	0.0			0	0.0	0	0.0
Other Male Genital Organs	0	0.0	0	0.0			0	0.0	0	0.0
Urinary	80	8.2	54	12.8	26	4.3	75	8.0	5	14.9
Bladder	37	3.8	28	6.9	9	1.3	37	3.9	0	0.0
Kidney and Renal Pelvis	38	3.9	23	5.3	15	2.7	33	3.6	5	14.9
Ureter	3	0.3	1	0.2	2	0.3	3	0.3	0	0.0
Other Urinary Organs	2	0.2	2	0.5	0	0.0	2	0.2	0	0.0
Eye and Orbit	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Brain and CNS	55	6.0	33	7.4	22	4.4	54	6.3	1	1.8
Brain	53	5.7	33	7.4	20	4.0	52	6.0	1	1.8
Meninges and CNS	2	0.2	0	0.0	2	0.4	2	0.2	0	0.0
Endocrine	10	1.1	5	1.0	5	1.1	9	1.0	1	1.1
Thyroid	7	0.7	3	0.6	4	0.8	7	0.7	0	0.0
Other Endocrine	3	0.4	2	0.4	1	0.4	2	0.3	1	1.1
Lymphomas	63	6.3	31	7.4	32	5.6	63	6.5	0	0.0
Hodgkin's Disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Non-Hodgkin's Lymphomas	63	6.3	31	7.4	32	5.6	63	6.5	0	0.0
Multiple Myeloma	34	3.7	15	3.8	19	3.4	34	3.8	0	0.0
Leukemia	83	8.6	49	12.3	34	5.9	77	8.3	4	10.0
Acute Lymphocytic	4	0.4	2	0.4	2	0.4	4	0.4	0	0.0
Chronic Lymphocytic	14	1.3	10	2.4	4	0.5	14	1.4	0	0.0
Other Lymphocytic	4	0.5	4	1.1	0	0.0	4	0.5	0	0.0
Acute Myeloid	39	4.0	20	5.0	19	3.4	37	4.0	1	2.5
Acute Monocytic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chronic Myeloid	2	0.2	1	0.2	1	0.2	2	0.2	0	0.0
Other Myeloid/Monocytic	3	0.3	1	0.2	2	0.4	1	0.1	2	4.3
Other Acute Leukemia	8	0.8	4	1.1	4	0.6	8	0.9	0	0.0
Other Leukemia	9	1.0	7	1.8	2	0.4	7	0.9	1	3.2
Mesothelioma	10	1.0	9	2.1	1	0.2	10	1.1	0	0.0
Immunoproliferative Diseases	1	0.1	0	0.0	1	0.2	1	0.1	0	0.0
Ill-Defined and Unspecified Sites	107	11.1	55	13.4	52	9.1	96	10.4	11	44.4

Rates per 100,000 age-adjusted to the 2000 US standard population and 2010 SD census population.
Source: South Dakota Department of Health

Table 9 shows death and age-adjusted death rates by SEER recode primary sites (Appendix D), gender and race. Approximately 1,600 persons die from cancer in South Dakota each year with little or no change in counts. Overall more males than females die from cancer.

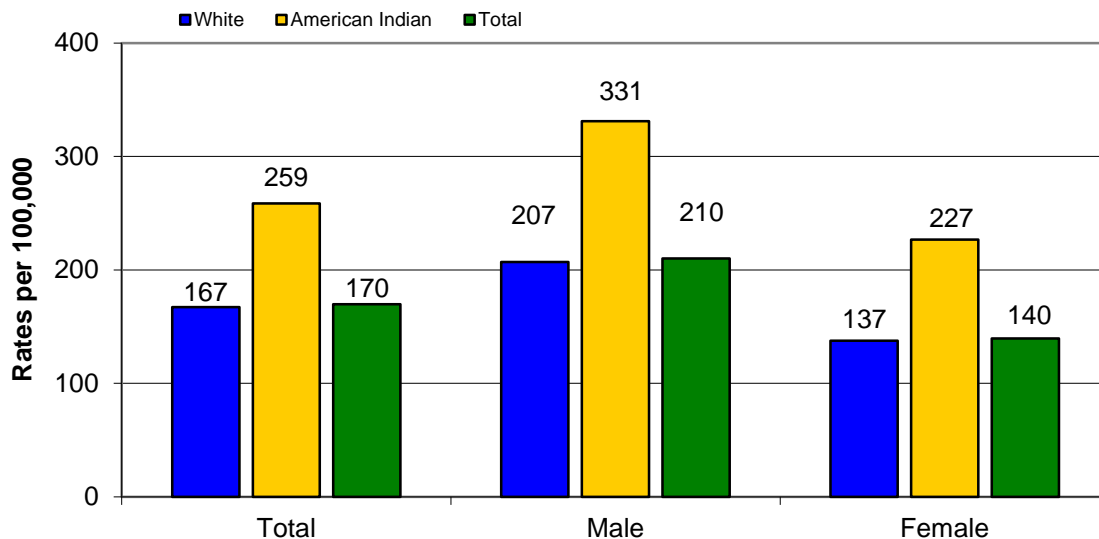
Table 10: Percentage of Cancer Deaths by Age Groups and Selected Primary Sites, South Dakota, 2010

Age Group	0-19	20-34	35-49	50-64	65-74	75-84	85+
All Sites	0%	0%	3%	22%	23%	30%	22%
Bladder	0%	0%	0%	11%	16%	46%	27%
Female Breast	0%	0%	10%	29%	17%	19%	24%
Colorectal	0%	0%	3%	20%	25%	23%	29%
Corpus and Uterus, NOS	0%	0%	5%	33%	10%	33%	19%
Meninges, Brain and CNS	2%	4%	5%	38%	22%	25%	4%
Kidney and Renal Pelvis	0%	0%	5%	37%	21%	21%	16%
Leukemia	1%	1%	4%	7%	24%	33%	29%
Lung and Bronchus	0%	0%	2%	22%	31%	31%	15%
Melanoma of the Skin	0%	0%	10%	19%	24%	33%	14%
Non-Hodgkin's Lymphoma	0%	0%	2%	16%	13%	37%	33%
Pancreas	0%	0%	3%	31%	23%	23%	19%
Prostate	0%	0%	0%	7%	18%	36%	39%

Source: South Dakota Department of Health

Overall, in 2010 more persons 75 to 84 years of age died from cancer in South Dakota than any other age group (Table 10). However, there is cause for concern when too many people die from cancer at a young age.

Figure 8: All Sites Cancer Mortality Rates by Race, and Gender, South Dakota, 2010



Note: Rates per 100,000 age-adjusted to 2000 US standard population and 2010 SD census population.
Source: South Dakota Department of Health

Figure 8 illustrates that males had higher death rates than females. American Indian males and females had higher death rates than whites.