

Table 7 : Cancer Deaths and Mortality Rates by County
South Dakota, 2016 and 2012-2016 Average

VII. CANCER MORTALITY

Cancer age-adjusted mortality rates for 2016 ranged from a low of 59.9 in Aurora County to a high of 321.6 in Jackson County. South Dakota's age-adjusted mortality rate was 160.4 in 2016 compared to a five-year mortality rate of 160.7.

In 2016, four counties had a significantly lower rate than that of the entire state and none had a significantly higher rate. The five-year rates show six counties having significantly lower rates and three counties with significantly higher rates. South Dakota's mortality rate for 2012-2016 was 160.7 per 100,000 persons.

The United States mortality rate for 2016 was 155.9 and the South Dakota rate was 160.4 per 100,000 persons. When comparing the two rates there is no significant difference.

The South Dakota 2016 mortality rates are displayed in a state map on page 15 of this report.

County	2016		2012-2016 [^]	
	Deaths	Rate	Deaths	Rate
South Dakota	1,722	160.4	1,676	160.7
Aurora	3	59.9 ▼	6	137.7
Beadle	40	158.2	42	164.7
Bennett	8	236.3	7	210.5
Bon Homme	18	156.2	16	135.8
Brookings	47	162.3	50	171.8
Brown	84	168.9	85	170.3
Brule	13	156.4	13	171.9
Buffalo	4	229.6	3	230.4
Butte	23	155.9	23	156.4
Campbell	4	143.8	4	136.7
Charles Mix	25	201.0	23	172.4
Clark	8	112.3	9	132.6
Clay	26	213.2	23	185.4
Codington	74	199.3	66	185.4 ▲
Corson	7	205.5	8	199.6
Custer	30	174.1	22	141.4
Davison	55	181.9	50	169.8
Day	17	197.5	13	133.3
Deuel	14	208.1	9	130.3
Dewey	9	183.5	10	224.8
Douglas	5	73.6 ▼	9	159.8
Edmunds	6	98.7	9	125.4
Fall River	30	231.9	24	188.4
Faulk	4	86.7	8	175.1
Grant	14	113.5	15	126.9 ▼
Gregory	13	165.1	14	170.8
Haakon	5	135.6	5	160.8
Hamlin	15	184.7	12	146.6
Hand	8	182.5	9	141.9
Hanson	7	262.5	6	229.1
Harding	*	118.6	*	59.6 ▼
Hughes	39	179.4	35	161.7
Hutchinson	12	68.4 ▼	18	120.5 ▼
Hyde	7	251.0	3	119.3
Jackson	13	321.6	7	199.3
Jerauld	6	159.5	7	154.8
Jones	3	200.9	2	117.4
Kingsbury	19	210.3	16	193.5
Lake	31	162.0	25	135.9
Lawrence	46	134.9	52	148.9
Lincoln	59	114.6 ▼	54	119.5 ▼
Lyman	9	199.0	8	175.9
McCook	21	249.9	19	241.3 ▲
McPherson	6	109.2	7	108.3 ▼
Marshall	16	249.4	11	166.7
Meade	60	195.7	45	153.3
Mellette	3	119.4	4	161.5
Miner	12	320.2	7	178.7
Minnehaha	308	159.2	317	172.3
Moody	11	143.3	13	160.3
Oglala Lakota	15	156.6	19	226.8 ▲
Pennington	200	140.9	199	153.4
Perkins	7	100.1	9	162.0
Potter	9	167.9	7	137.0
Roberts	21	147.6	26	182.8
Sanborn	3	77.7	6	174.3
Spink	17	179.3	16	162.8
Stanley	6	145.8	6	164.5
Sully	3	129.3	4	156.5
Todd	16	222.0	13	207.1
Tripp	17	160.6	15	148.7
Turner	19	131.9	21	163.6
Union	31	154.6	29	152.1
Walworth	11	97.5	16	161.7
Yankton	45	134.8	47	147.4
Ziebach	3	139.0	*	43.1 ▼

* Counts less than three are suppressed. Mortality rates with counts less than 20 are generally considered unstable. ▲ Rate significantly higher; ▼ Rate significantly lower
^ Number of the cases and rates are averaged over the five-year period.

Rates per 100,000 age-adjusted to 2000 US standard population and SD 2016 estimated population. Source: South Dakota Department of Health

Table 8: Age-adjusted Mortality Rates by County for Selected Sites, 2016

	Colorectal		Lung and Bronchus		Female Breast		Prostate		Bladder		NHL	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
South Dakota	164	15.3	418	38.5	109	19.3	418	85.2	47	4.3	55	5.4
Aurora	0	0.0	*	42.4	0	0.0	*	93.2	0	0.0	0	0.0
Beadle	0	0.0	9	30.8	*	17.1	9	77.9	0	0.0	*	7.7
Bennett	0	0.0	*	25.4	0	0.0	*	51.9	*	20.3	0	0.0
Bon Homme	0	0.0	4	35.5	*	18.1	4	74.8	0	0.0	*	8.1
Brookings	7	22.1	7	24.9	4	28.2	7	54.5	*	6.7	0	0.0
Brown	6	12.7	23	48.8	7	25.9	23	108.9	3	5.3	3	6.6
Brule	0	0.0	*	19.3	*	43.7	*	48.0	0	0.0	0	0.0
Buffalo	0	0.0	*	121.6	0	0.0	*	273.4	0	0.0	0	0.0
Butte	7	50.9	4	24.5	0	0.0	4	54.2	0	0.0	*	5.0
Campbell	0	0.0	*	34.6	0	0.0	*	77.1	0	0.0	0	0.0
Charles Mix	*	14.2	3	23.0	*	45.4	3	51.9	0	0.0	*	7.2
Clark	0	0.0	*	29.4	0	0.0	*	68.2	0	0.0	0	0.0
Clay	*	12.4	6	43.2	*	37.4	6	97.9	0	0.0	0	0.0
Codington	10	29.1	16	43.7	8	41.5	16	98.9	*	5.1	4	11.3
Corson	*	41.4	*	35.5	0	0.0	*	71.1	*	36.1	0	0.0
Custer	4	23.3	9	53.3	*	27.6	9	114.6	*	3.7	*	3.9
Davison	8	22.7	17	57.7	*	7.7	17	134.9	*	2.1	0	0.0
Day	*	6.4	3	23.0	0	0.0	3	53.1	*	17.4	0	0.0
Deuel	*	22.0	*	33.3	*	59.7	*	69.1	0	0.0	0	0.0
Dewey	*	22.9	3	49.9	0	0.0	3	104.4	0	0.0	0	0.0
Douglas	*	16.2	0	0.0	*	31.9	0	0.0	0	0.0	0	0.0
Edmunds	*	12.9	*	31.3	0	0.0	*	60.6	0	0.0	0	0.0
Fall River	*	12.7	7	51.1	3	35.6	7	113.3	3	37.4	0	0.0
Faulk	0	0.0	*	28.1	0	0.0	*	55.7	0	0.0	0	0.0
Grant	*	7.6	3	26.6	0	0.0	3	55.6	*	8.1	*	16.2
Gregory	*	12.2	*	12.6	*	41.4	*	27.9	0	0.0	0	0.0
Haakon	*	27.9	*	27.9	*	64.3	*	59.1	0	0.0	0	0.0
Hamlin	*	11.4	5	68.4	0	0.0	5	153.3	0	0.0	0	0.0
Hand	0	0.0	*	31.5	0	0.0	*	71.2	0	0.0	0	0.0
Hanson	*	37.0	*	103.1	*	51.2	*	181.7	*	37.0	0	0.0
Harding	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hughes	8	39.3	11	45.4	4	38.2	11	101.8	0	0.0	0	0.0
Hutchinson	*	12.8	5	27.7	0	0.0	5	69.0	*	10.2	*	5.9
Hyde	*	50.4	*	31.8	0	0.0	*	69.3	*	31.9	0	0.0
Jackson	0	0.0	3	63.5	0	0.0	3	140.7	*	31.0	0	0.0
Jerauld	*	15.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Jones	*	71.1	*	58.8	0	0.0	*	127.1	0	0.0	0	0.0
Kingsbury	*	13.9	6	68.6	*	30.6	6	135.0	0	0.0	0	0.0
Lake	4	21.1	9	48.5	*	10.3	9	106.7	0	0.0	3	18.4
Lawrence	10	32.1	14	40.0	*	8.4	14	86.9	*	3.2	0	0.0
Lincoln	4	7.0	17	33.3	3	11.3	17	72.8	*	1.3	4	8.3
Lyman	0	0.0	0	0.0	*	70.5	0	0.0	*	24.4	*	22.0
McCook	*	7.6	5	61.6	*	42.0	5	143.9	0	0.0	*	12.4
McPherson	*	25.5	*	25.8	0	0.0	*	59.9	0	0.0	0	0.0
Marshall	*	14.6	5	77.8	*	55.6	5	168.0	0	0.0	0	0.0
Meade	3	10.2	19	57.4	3	16.4	19	121.3	*	6.6	4	12.9
Mellette	0	0.0	*	36.4	0	0.0	*	66.1	*	36.4	0	0.0
Miner	0	0.0	*	38.7	*	22.8	*	109.3	0	0.0	*	59.0
Minnehaha	35	18.1	79	40.8	25	23.4	79	93.9	11	5.3	8	4.5
Moody	0	0.0	3	37.3	*	14.6	3	97.3	0	0.0	*	28.2
Oglala Lakota	0	0.0	5	51.7	*	13.5	5	130.6	0	0.0	0	0.0
Pennington	12	8.8	50	36.3	7	8.2	50	81.0	5	3.3	7	5.6
Perkins	*	10.3	*	17.6	0	0.0	*	36.5	*	10.3	0	0.0
Potter	0	0.0	*	24.8	*	61.3	*	41.8	0	0.0	*	29.4
Roberts	0	0.0	4	29.7	*	8.2	4	57.3	0	0.0	0	0.0
Sanborn	*	40.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Spink	*	13.4	0	0.0	4	92.7	0	0.0	0	0.0	*	6.7
Stanley	*	34.7	*	28.8	0	0.0	*	54.1	0	0.0	0	0.0
Sully	0	0.0	0	0.0	*	71.4	0	0.0	0	0.0	0	0.0
Todd	*	10.9	4	68.2	0	0.0	4	149.4	*	17.0	0	0.0
Tripp	4	30.3	5	54.7	0	0.0	5	115.5	0	0.0	*	11.5
Turner	*	10.2	4	30.0	0	0.0	4	63.9	0	0.0	*	5.1
Union	*	7.3	10	57.7	*	6.9	10	121.8	*	4.4	*	4.5
Walworth	0	0.0	*	11.1	*	41.4	*	27.0	*	11.1	0	0.0
Yankton	5	13.6	8	21.8	4	16.3	8	55.1	*	4.1	*	2.7
Ziebach	0	0.0	*	24.5	0	0.0	*	46.6	0	0.0	*	48.4

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 2016 SD estimated population.

Source: South Dakota Department of Health

Table 9: Age-adjusted Mortality Rates by Site, Gender, and Race, South Dakota, 2016

	TOTAL		MALE		FEMALE		WHITE		AMERICAN INDIAN	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
Total	1,722	160.4	951	198.1	771	132.7	1,615	159.1	90	200.8
Oral Cavity	25	2.3	17	3.3	8	1.2	22	2.1	3	4.8
Lip	1	0.1	1	0.2	0	0.0	1	0.1	0	0.0
Tongue	5	0.5	2	0.4	3	0.5	4	0.4	1	1.7
Salivary Gland	2	0.1	1	0.2	1	0.1	2	0.1	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	0.5	2	0.5	3	0.4	4	0.4	1	1.7
Nasopharynx	2	0.1	2	0.3	0	0.0	2	0.2	0	0.0
Hypopharynx	2	0.2	2	0.4	0	0.0	2	0.2	0	0.0
Tonsil	2	0.2	2	0.4	0	0.0	1	0.1	1	1.5
Oropharynx	1	0.1	0	0.0	1	0.2	1	0.1	0	0.0
Other Oral Cavity and Pharynx	5	0.5	5	0.9	0	0.0	5	0.5	0	0.0
Digestive System	445	41.3	256	52.3	189	32.2	418	41.2	22	43.9
Esophagus	36	3.2	32	6.3	4	0.6	35	3.3	1	1.8
Stomach	20	2.1	9	1.9	11	2.1	18	1.9	2	3.2
Small Intestine	10	0.9	5	1.1	5	0.8	9	0.8	1	1.7
Colorectal	164	15.3	91	19.2	73	12.1	157	15.5	5	8.0
Colon Excluding Rectum	132	12.3	71	15.3	61	10.0	125	12.3	5	8.0
Rectum and Rectosigmoid	32	3.0	20	3.9	12	2.1	32	3.2	0	0.0
Anus, Anal Canal and Anorectum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Liver and Intrahepatic Bile Duct	73	6.7	50	9.8	23	3.8	65	6.4	6	14.7
Gallbladder	6	0.6	1	0.2	5	1.0	6	0.6	0	0.0
Other Biliary	7	0.7	5	1.2	2	0.3	7	0.8	0	0.0
Pancreas	128	11.7	62	12.3	66	11.3	120	11.8	7	14.4
Retroperitoneum	1	0.1	1	0.2	0	0.0	1	0.1	0	0.0
Peritoneum, Omentum and Mesentery	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Respiratory	425	39.1	237	48.3	188	32.3	394	38.3	28	66.7
Nose, Nasal Cavity and Middle Ear	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Larynx	5	0.4	3	0.4	2	0.4	3	0.3	2	3.3
Lung and Bronchus	418	38.5	232	47.4	186	32.0	390	37.9	25	59.8
Pleura	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mediastinum and Other Resp Organs	2	0.2	2	0.5	0	0.0	1	0.1	1	3.6
Bones and Joints	2	0.1	2	0.4	0	0.0	2	0.2	0	0.0
Soft Tissue	16	1.6	9	2.0	7	1.1	14	1.5	2	2.5
Skin	25	2.3	19	3.8	6	1.0	23	2.2	2	5.6
Melanoma of the Skin	20	1.8	17	3.4	3	0.6	19	1.8	1	1.9
Other Nonepithelial Skin	5	0.5	2	0.4	3	0.5	4	0.4	1	3.6
Breast	111	10.5	2	0.4	109	19.3	102	10.2	6	14.8
Breast, Female	109	19.3			109	19.3	100	18.8	6	25.7
Breast, Male	2	0.4	2	0.4			2	0.5	0	0.0
Female	67	11.7			67	11.7	62	11.6	4	11.0
Vulva	3	0.4			3	0.4	3	0.4	0	0.0
Vagina	0	0.0			0	0.0	0	0.0	0	0.0
Cervix Uteri	5	0.8			5	0.8	4	0.7	1	2.8
Corpus and Uterus, NOS	21	3.7			21	3.7	21	4.0	0	0.0
Corpus Uteri	15	2.8			15	2.8	15	3.0	0	0.0
Uterus, NOS	6	0.9			6	0.9	6	1.0	0	0.0
Ovary	36	6.5			36	6.5	33	6.4	2	5.5
Other Female Genital Organs	2	0.3			2	0.3	1	0.1	1	2.8

**Table 9: Age-adjusted Mortality Rates by Site, Gender, and Race, South Dakota, 2016
(continued)**

	TOTAL		MALE		FEMALE		WHITE		AMERICAN INDIAN	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
Male	111	24.1	111	24.1			104	23.6	6	40.6
Penis	1	0.2	1	0.2			1	0.2	0	0.0
Prostate	107	23.3	107	23.3			100	22.8	6	40.6
Testis	1	0.2	1	0.2			1	0.2	0	0.0
Other Male Genital Organs	2	0.4	2	0.4			2	0.4	0	0.0
Urinary	100	9.1	71	15.0	29	4.5	96	9.3	3	5.7
Bladder	47	4.3	37	8.2	10	1.4	45	4.3	1	2.6
Kidney and Renal Pelvis	49	4.5	34	6.8	15	2.6	47	4.6	2	3.1
Ureter	1	0.1	0	0.0	1	0.1	1	0.1	0	0.0
Other Urinary Organs	3	0.2	0	0.0	3	0.4	3	0.3	0	0.0
Eye and Orbit	2	0.3	1	0.2	1	0.4	2	0.3	0	0.0
Brain and CNS	50	4.8	22	4.5	28	5.4	50	5.2	0	0.0
Brain	49	4.7	22	4.5	27	5.1	49	5.1	0	0.0
Meninges and CNS	1	0.1	0	0.0	1	0.2	1	0.1	0	0.0
Endocrine	9	0.9	4	0.9	5	0.9	8	0.8	1	3.6
Thyroid	8	0.8	3	0.8	5	0.9	7	0.8	1	3.6
Other Endocrine	1	0.1	1	0.1	0	0.0	1	0.1	0	0.0
Lymphomas	56	5.5	33	7.3	23	3.7	55	5.6	0	0.0
Hodgkin's Disease	1	0.1	0	0.0	1	0.1	1	0.1	0	0.0
Non-Hodgkin's Lymphomas	55	5.4	33	7.3	22	3.6	54	5.6	0	0.0
Multiple Myeloma	50	4.8	29	6.1	21	3.7	47	4.7	2	5.4
Leukemia	61	5.7	38	8.2	23	3.8	58	5.7	3	3.2
Acute Lymphocytic	3	0.3	2	0.5	1	0.1	2	0.2	1	1.0
Chronic Lymphocytic	13	1.2	6	1.4	7	1.0	13	1.2	0	0.0
Other Lymphocytic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Acute Myeloid	22	2.1	13	2.8	9	1.7	21	2.2	1	1.4
Acute Monocytic	6	0.5	3	0.6	3	0.4	6	0.5	0	0.0
Chronic Myeloid	4	0.3	3	0.5	1	0.2	4	0.3	0	0.0
Other Myeloid/Monocytic	2	0.2	2	0.4	0	0.0	2	0.2	0	0.0
Other Acute Leukemia	6	0.6	5	1.1	1	0.1	6	0.6	0	0.0
Other Leukemia	5	0.5	4	0.9	1	0.2	4	0.4	1	0.8
Myeloproliferative & Myelodysplastic	31	2.8	17	3.7	14	2.3	31	2.9	0	0.0
Mesothelioma	6	0.5	5	0.9	1	0.2	5	0.4	1	3.6
III-Defined and Unspecified Sites	130	12.4	78	16.8	52	9.1	122	12.4	7	17.7

Rates per 100,000 age-adjusted to the 2000 US standard population and 2016 SD estimated population.
Source: South Dakota Department of Health

Table 9 shows death and age-adjusted mortality rates by SEER recode primary sites (Appendix D), gender and race. Approximately 1,700 persons die from cancer in South Dakota each year with a small change in counts. Overall more males than females die from cancer.

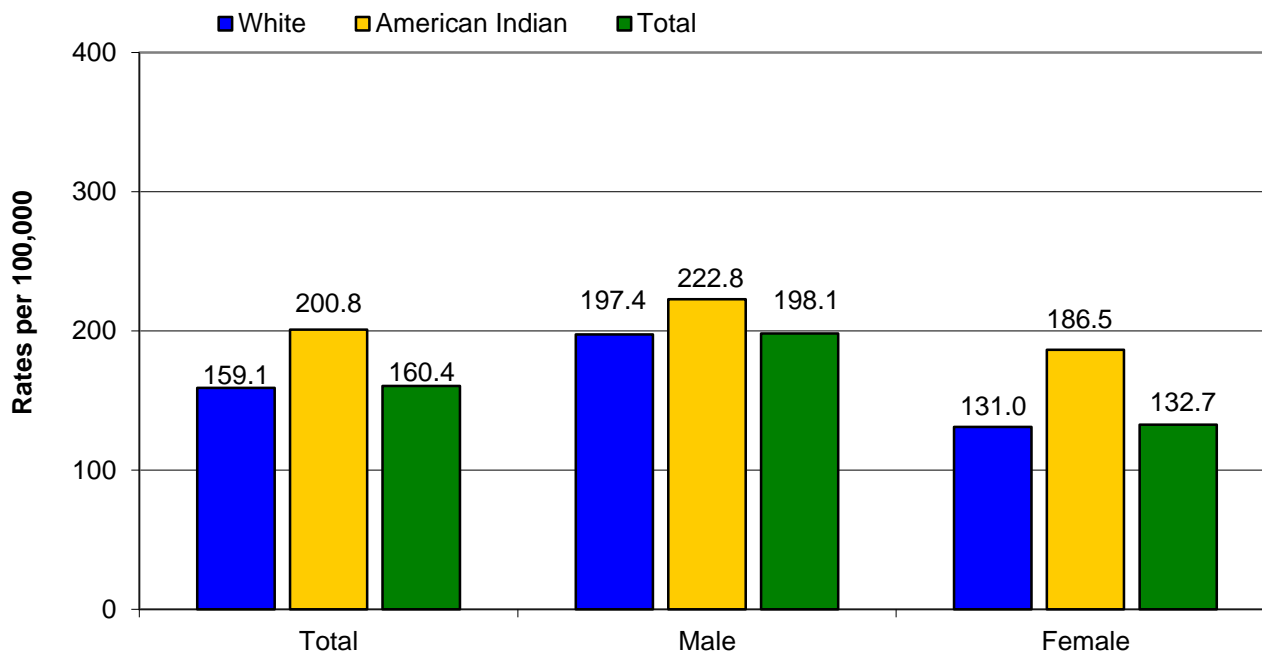
Table 10: Percentage of Cancer Deaths by Age Groups and Selected Primary Sites, South Dakota, 2016

Age Group	0-19	20-34	35-49	50-64	65-74	75-84	85+
All Sites	0%	1%	3%	19%	26%	29%	21%
Bladder	0%	2%	0%	4%	21%	38%	34%
Female Breast	0%	1%	6%	18%	35%	19%	20%
Colorectal	0%	1%	8%	18%	20%	23%	30%
Corpus and Uterus, NOS	0%	0%	5%	33%	33%	10%	19%
Meninges, Brain and CNS	4%	0%	8%	22%	30%	22%	14%
Kidney and Renal Pelvis	0%	0%	2%	24%	31%	27%	16%
Leukemia	2%	3%	3%	10%	23%	30%	30%
Lung and Bronchus	0%	0%	1%	21%	32%	30%	16%
Melanoma of the Skin	0%	0%	5%	30%	20%	30%	15%
Non-Hodgkin's Lymphoma	0%	0%	5%	16%	15%	44%	20%
Pancreas	0%	0%	4%	27%	27%	25%	18%
Prostate	0%	0%	2%	12%	14%	38%	34%

Source: South Dakota Department of Health

Overall, in 2016 more persons 75 to 84 years of age died from cancer in South Dakota than any other age group (Table 10).

Figure 8: All Sites Cancer Mortality Rates by Race, and Gender, South Dakota, 2016



Note: Rates per 100,000 age-adjusted to 2000 US standard population and 2016 SD estimated population.
Source: South Dakota Department of Health

Figure 8 illustrates that American Indian males had a higher mortality rate than any other group. In 2012 American Indian females had a higher mortality rate than their male counterparts.