

**Table 1 : Cancer Cases and Incidence Rates by County
South Dakota, 2013 and 2009-2013 Average**

IV. CANCER INCIDENCE

South Dakota collected 4,417 new reportable cancer cases in 2013. Data at the county level ranged from a low incidence rate of 54.4 in Ziebach County to a high of 726.4 in Dewey County. There were 11 counties with rates significantly lower than the state incidence rate of 450.0. Four counties had a significantly higher rate, compared to two counties in 2012.

The United States incidence rate for 2013 was 431.7 and the 2013 South Dakota incidence rate was 450.0 per 100,000 persons.

On page 14 of this report a map displaying the 2013 incidence rates by county can be located. On page 15 is a map displaying the mortality rates by county.

County	2013		2009-2013 [^]	
	Cases	Rate	Cases	Rate
South Dakota	4,417	450.0	4,280	451.4
Aurora	20	490.9	19	500.4
Beadle	102	450.7	102	446.2
Bennett	12	358.1	14	430.4
Bon Homme	21	238.7 ▼	37	381.8 ▼
Brookings	124	440.0	115	433.2
Brown	200	430.2	187	415.1 ▼
Brule	29	389.1	31	449.2
Buffalo	6	381.8	7	502.7
Butte	43	317.2 ▼	57	436.0
Campbell	9	507.5	8	309.8 ▼
Charles Mix	62	545.8	56	481.0
Clark	18	444.3	23	437.5
Clay	52	447.2	50	425.4
Codington	173	519.0	146	460.3
Corson	8	194.9 ▼	14	387.2
Custer	59	412.6	51	374.3 ▼
Davison	136	562.4 ▲	124	505.5 ▲
Day	32	308.8 ▼	40	442.8
Deuel	28	447.1	27	431.5
Dewey	35	726.4 ▲	27	588.6 ▲
Douglas	21	490.4	23	495.5
Edmunds	28	462.9	28	465.5
Fall River	54	450.3	59	478.4
Faulk	20	416.6	19	481.2
Grant	50	469.9	46	446.1
Gregory	43	688.3 ▲	37	549.6 ▲
Haakon	15	492.2	17	575.7
Hamlin	34	492.9	31	433.9
Hand	21	376.9	21	374.7 ▼
Hanson	11	322.8	17	497.3
Harding	8	418.2	5	285.1 ▼
Hughes	94	435.8	103	508.2 ▲
Hutchinson	49	410.1	52	451.2
Hyde	10	551.1	9	448.9
Jackson	9	243.1 ▼	10	312.0 ▼
Jerauld	17	525.3	14	416.1
Jones	6	363.5	5	318.7 ▼
Kingsbury	43	528.6	47	598.3 ▲
Lake	63	378.4	66	422.2
Lawrence	116	353.9 ▼	120	387.0 ▼
Lincoln	175	408.3	161	418.5 ▼
Lyman	19	481.7	20	458.8
McCook	42	534.2	37	498.2
McPherson	18	391.6	15	319.6 ▼
Marshall	14	212.6 ▼	26	409.6
Meade	123	411.1	113	413.5 ▼
Mellette	5	199.7 ▼	11	488.2
Miner	26	715.5	18	494.7
Minnehaha	989	544.7 ▲	888	504.8 ▲
Moody	26	343.2	32	408.5
Oglala Lakota	48	620.7	43	633.7 ▲
Pennington	488	397.4 ▼	506	437.9 ▼
Perkins	15	327.8	20	423.7
Potter	27	709.4	21	517.5
Roberts	63	484.0	52	405.0 ▼
Sanborn	20	668.2	19	582.7 ▲
Spink	41	492.2	35	440.3
Stanley	21	518.7	22	542.7
Sully	5	223.4 ▼	7	375.6
Todd	26	407.4	25	422.8
Tripp	40	412.3	36	413.1
Turner	63	562.2	56	484.0
Union	91	521.9	93	547.5 ▲
Walworth	33	378.7	33	366.1 ▼
Yankton	116	392.3	119	417.9 ▼
Ziebach	*	54.4 ▼	4	199.2 ▼

* 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 2013 estimated population. Source: South Dakota Department of Health

Table 2: Age-adjusted Incidence Rates by County for Selected Sites, 2013

	Colorectal		Lung and Bronchus		Female Breast		Prostate		Bladder		NHL	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
South Dakota	413	40.7	598	59.4	715	146.0	508	102.1	189	18.9	166	17.0
Aurora	3	68.3	6	134.8	*	82.0	0	0.0	*	20.3	0	0.0
Beadle	11	52.6	17	70.7	12	127.4	11	91.4	8	31.9	*	2.7
Bennett	*	29.7	*	59.9	*	88.3	*	111.9	*	30.6	0	0.0
Bon Homme	3	33.3	*	24.6	6	176.3	*	38.6	*	12.4	0	0.0
Brookings	10	36.3	11	41.4	22	158.3	22	163.7	*	6.9	3	9.7
Brown	19	35.1	26	53.7	32	134.2	17	80.6	8	15.6	12	26.9
Brule	5	56.8	6	91.2	*	59.3	7	209.6	*	15.0	0	0.0
Buffalo	*	131.0	0	0.0	0	0.0	*	221.9	0	0.0	0	0.0
Butte	5	33.4	5	29.5	12	195.2	4	52.3	*	5.4	*	6.0
Campbell	*	84.9	*	42.2	3	294.9	*	63.8	0	0.0	0	0.0
Charles Mix	9	68.0	7	58.8	13	237.6	5	79.1	3	20.8	4	46.8
Clark	0	0.0	*	36.5	5	312.3	*	39.7	*	17.1	0	0.0
Clay	*	17.4	9	79.8	14	245.0	4	59.8	3	21.3	*	7.8
Codington	12	34.7	21	60.3	24	155.5	23	129.4	9	27.3	4	11.9
Corson	*	22.5	*	49.1	*	40.7	0	0.0	0	0.0	0	0.0
Custer	3	17.3	6	39.1	12	139.0	3	43.1	5	48.8	4	30.8
Davison	15	65.8	20	75.6	15	111.5	20	167.9	5	17.9	3	12.2
Day	9	73.5	5	50.0	*	41.3	4	79.0	*	16.8	*	8.5
Deuel	*	33.1	3	39.4	3	120.6	5	148.4	*	12.6	*	43.1
Dewey	6	125.7	5	114.1	4	152.9	6	267.7	*	25.8	*	17.1
Douglas	4	54.2	5	93.2	*	46.0	4	193.1	*	8.2	*	66.9
Edmunds	*	16.7	*	37.0	3	106.3	5	154.6	*	32.8	*	19.8
Fall River	3	24.0	7	53.9	13	229.2	4	46.3	*	15.5	3	21.9
Faulk	3	56.5	*	39.7	5	216.1	*	81.7	0	0.0	0	0.0
Grant	4	32.6	9	81.9	9	148.6	6	115.3	*	20.3	*	8.2
Gregory	*	12.0	5	70.4	5	104.5	5	130.6	*	7.9	5	108.4
Haakon	*	55.9	*	25.4	3	189.5	*	114.7	*	27.4	*	27.4
Hamiin	3	38.8	5	61.3	6	195.2	4	101.5	5	67.0	0	0.0
Hand	4	54.7	4	110.3	4	144.8	0	0.0	*	19.4	*	8.4
Hanson	*	38.4	0	0.0	0	0.0	4	193.9	*	72.7	0	0.0
Harding	0	0.0	*	111.7	*	88.2	3	259.6	0	0.0	0	0.0
Hughes	6	30.0	9	42.8	19	173.3	15	142.2	0	0.0	5	20.7
Hutchinson	8	70.3	5	41.8	8	137.7	3	56.5	4	34.0	3	16.9
Hyde	*	104.4	0	0.0	0	0.0	0	0.0	*	46.7	*	112.2
Jackson	0	0.0	4	116.3	*	52.1	0	0.0	0	0.0	0	0.0
Jerault	*	59.9	*	44.5	*	91.0	*	48.3	3	65.2	*	16.3
Jones	*	49.7	3	188.7	0	0.0	0	0.0	0	0.0	0	0.0
Kingsbury	5	70.2	8	93.3	7	198.5	5	138.7	*	16.9	0	0.0
Lake	5	30.2	13	76.1	6	67.8	9	102.4	3	17.0	0	0.0
Lawrence	9	25.7	19	57.7	14	96.3	16	88.0	6	15.9	8	26.9
Lincoln	17	40.6	20	49.8	31	135.8	15	78.3	4	9.3	5	12.5
Lyman	4	138.8	0	0.0	3	133.5	*	89.9	0	0.0	*	45.5
McCook	5	44.8	11	129.5	5	164.0	10	244.4	0	0.0	*	11.0
McPherson	5	72.2	*	24.8	*	80.3	*	32.4	*	24.8	*	27.8
Marshall	3	41.1	*	15.5	0	0.0	*	20.2	*	21.7	*	11.0
Meade	11	29.5	17	58.2	19	126.7	15	90.1	*	9.0	7	24.6
Mellette	0	0.0	0	0.0	0	0.0	3	146.7	0	0.0	0	0.0
Miner	4	139.0	7	173.6	4	314.5	3	136.3	*	18.8	0	0.0
Minnehaha	79	43.6	134	73.9	176	181.7	116	136.9	47	27.1	35	19.5
Moody	*	23.3	*	13.6	*	38.6	8	199.2	*	22.9	*	17.1
Oglala Lakota	4	55.3	3	46.3	6	158.6	6	165.3	*	21.2	*	16.4
Pennington	41	32.9	74	58.3	81	131.8	38	61.8	21	16.5	20	15.5
Perkins	3	64.6	*	44.8	*	87.9	*	38.3	0	0.0	*	10.7
Potter	*	100.6	4	90.9	5	299.7	5	227.8	0	0.0	*	36.3
Roberts	6	39.0	6	42.3	12	208.7	5	66.8	3	21.6	*	11.4
Sanborn	0	0.0	4	109.8	*	135.4	5	328.1	0	0.0	*	17.2
Spink	3	29.4	6	65.8	7	173.1	3	55.7	0	0.0	*	6.3
Stanley	*	56.8	*	36.3	*	76.0	3	124.2	0	0.0	*	32.0
Sully	*	82.4	0	0.0	*	122.4	0	0.0	0	0.0	*	43.1
Todd	6	104.9	*	25.2	3	72.2	*	24.6	*	12.9	*	10.3
Tripp	3	34.7	7	59.1	9	202.8	6	149.9	*	23.5	*	6.3
Turner	5	38.7	7	55.1	16	269.3	9	152.5	3	28.5	*	21.8
Union	9	49.0	8	46.9	14	180.3	13	150.9	*	8.3	4	27.4
Walworth	*	23.0	6	57.5	7	170.1	4	98.5	3	32.7	0	0.0
Yankton	12	39.7	16	50.0	14	80.7	9	61.2	6	22.8	6	17.5
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. Incidence rates with counts less than 20 are generally considered unstable.
 Rates per 100,000 age-adjusted to the 2000 US standard population and 2013 SD estimated population.
 Source: South Dakota Department of Health.

Table 3: Age-adjusted Incidence Rates by Site, Gender and Race, South Dakota, 2013

2013	TOTAL		MALE		FEMALE		WHITE		AMERICAN INDIAN	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Total	4,417	450.0	2,162	462.5	2,255	446.6	4,149	455.8	222	496.1
Oral Cavity	111	11.3	78	16.5	33	6.3	102	11.2	4	11.5
Lip	8	0.9	5	1.3	3	0.6	8	1.0	0	0.0
Tongue	41	4.1	25	5.3	16	3.1	38	4.2	1	1.7
Salviary Gland	13	1.2	9	1.9	4	0.7	12	1.3	0	0.0
Floor of Mouth	7	0.7	6	1.3	1	0.2	6	0.6	1	3.1
Gum and Other Mouth	11	1.1	6	1.3	5	0.9	10	1.1	0	0.0
Nasopharynx	1	0.1	1	0.2	0	0.0	1	0.1	0	0.0
Tonsil	18	1.9	16	3.3	2	0.4	17	1.9	0	0.0
Oropharynx	4	0.4	3	0.5	1	0.2	3	0.3	1	3.1
Hypopharynx	6	0.6	5	1.1	1	0.2	5	0.5	1	3.7
Other Oral Cavity and Pharynx	2	0.2	2	0.3	0	0.0	2	0.2	0	0.0
Digestive System	748	74.3	405	85.4	343	63.1	685	72.4	53	112.2
Esophagus	44	4.2	38	7.6	6	1.1	43	4.4	1	1.6
Stomach	51	5.4	30	6.8	21	4.2	44	4.9	4	9.2
Small Intestine	21	2.2	14	3.1	7	1.5	20	2.3	1	1.7
Colorectal	413	40.7	206	43.9	207	37.5	384	40.4	24	52.2
Colon Excluding Rectum	301	29.7	148	31.9	153	27.0	280	29.3	18	42.1
Rectum and Rectosigmoid	112	11.1	58	12.0	54	10.5	104	11.1	6	10.1
Anus, Anal Canal and Anorectum	18	1.6	4	0.7	14	2.6	16	1.6	2	3.2
Liver and Intrahepatic Bile Duct	63	6.3	48	9.6	15	3.2	51	5.3	11	21.4
Gallbladder	11	1.2	3	0.8	8	1.4	10	1.1	1	3.7
Other Biliary	7	0.7	2	0.5	5	0.8	6	0.6	1	4.5
Pancreas	106	10.4	56	11.8	50	8.9	101	10.6	4	7.8
Retroperitoneum	2	0.2	1	0.2	1	0.3	1	0.2	1	2.0
Peritoneum, Omentum and Mesentery	12	1.2	3	0.5	9	1.8	9	1.0	3	4.9
Respiratory	638	63.4	338	73.4	300	57.2	597	63.2	37	93.1
Nose, Nasal Cavity and Middle Ear	7	0.7	4	0.9	3	0.6	6	0.7	1	4.2
Larynx	30	3.0	23	4.7	7	1.4	28	2.9	2	4.7
Lung and Bronchus	598	59.4	309	67.3	289	55.0	560	59.2	34	84.2
Pleura	1	0.1	1	0.2	0	0.0	1	0.1	0	0.0
Mediastinum and Other Resp Organs	2	0.2	1	0.2	1	0.2	2	0.2	0	0.0
Bones and Joints	6	0.7	2	0.4	4	1.0	6	0.8	0	0.0
Soft Tissue (Including Heart)	28	3.2	14	3.3	14	3.0	26	3.2	2	4.5
Skin	214	22.7	119	26.0	95	20.4	211	24.3	3	5.3
Melanomas of the Skin	202	21.4	111	24.2	91	19.4	199	22.9	3	5.3
Other Skin	12	1.3	8	1.8	4	1.0	12	1.3	0	0.0
Breast	726	76.6	11	2.6	715	146.0	680	77.6	35	74.7
Breast, Female	715	146.0			715	146.0	669	148.2	35	136.4
Breast, Male	11	2.6	11	2.6			11	2.7	0	0.0
Female	267	53.1			267	53.1	246	57.7	18	73.8
Vulva	16	3.1			16	3.1	14	3.1	2	9.4
Vagina	2	0.4			2	0.4	1	0.2	1	3.0
Cervix Uteri	30	7.3			30	7.3	26	7.0	3	11.8
Corpus and Uterus, NOS	150	28.2			150	28.2	144	32.1	5	21.0
Corpus Uteri	149	28.0			149	28.0	144	29.5	5	21.0
Uterus, NOS	1	0.2			1	0.2	0	0.0	0	0.0
Ovary	67	13.7			67	13.7	60	13.4	7	28.7
Other Female Genital Organs	2	0.4			2	0.4	1	0.2	0	0.0

Table 3: Age-adjusted Incidence Rates by Site, Gender and Race, South Dakota, 2013 (continued)

	TOTAL		MALE		FEMALE		WHITE		AMERICAN INDIAN	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Male	548	112.5	548	112.5			522	114.7	21	92.7
Penis	13	3.1	13	3.1			12	3.0	0	0.0
Prostate	508	102.1	508	102.1			485	103.8	19	88.2
Testis	27	7.3	27	7.3			25	8.0	2	4.5
Other Male Genital Organs	0	0.0	0	0.0			0	0.0	0	0.0
Urinary	367	37.1	258	56.1	109	20.8	348	37.7	16	36.3
Bladder	189	18.9	140	30.9	49	9.0	186	19.7	2	3.8
Kidney and Renal Pelvis	164	17.0	110	23.5	54	10.9	148	16.6	14	32.4
Ureter	9	0.9	4	0.9	5	0.8	9	0.9	0	0.0
Other Urinary Organs	5	0.4	4	0.9	1	0.1	5	0.4	0	0.0
Eye and Orbit	7	0.7	4	0.8	3	0.5	6	0.6	1	0.8
Brain and CNS	64	6.8	37	8.4	27	5.4	62	7.5	2	2.6
Brain	63	6.7	36	8.2	27	5.4	61	7.4	2	2.6
Meninges and CNS	1	0.1	1	0.3	0	0.0	1	0.2	0	0.0
Endocrine	121	14.3	33	7.5	88	21.3	111	14.8	7	10.3
Thyroid	115	13.6	28	6.3	87	21.1	105	13.9	7	10.3
Other Endocrine	6	0.7	5	1.2	1	0.2	6	0.8	0	0.0
Lymphomas	185	19.2	95	21.3	90	17.6	178	20.3	7	19.0
Hodgkin's Lymphoma	19	2.3	8	1.8	11	2.7	19	2.6	0	0.0
Non-Hodgkin's Lymphoma	166	17.0	87	19.5	79	14.9	159	17.6	7	19.0
Multiple Myeloma	63	6.2	38	8.2	25	4.6	59	6.1	4	10.4
Leukemia	150	15.3	84	18.6	66	12.7	144	16.2	5	15.3
Acute Lymphocytic	15	1.7	6	1.4	9	2.0	15	2.1	0	0.0
Chronic Lymphocytic	61	5.9	37	7.6	24	4.4	58	6.0	2	6.2
Other Lymphocytic	2	0.2	1	0.2	1	0.2	2	0.2	0	0.0
Acute Myeloid	47	4.9	26	6.2	21	4.0	47	5.3	0	0.0
Acute Monocytic	2	0.3	2	0.5	0	0.0	2	0.3	0	0.0
Chronic Myeloid	17	1.8	11	2.5	6	1.3	15	1.7	2	4.6
Other Myeloid/Monocytic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other Acute Leukemia	4	0.4	1	0.2	3	0.6	4	0.4	0	0.0
Other Leukemia	2	0.2	0	0.0	2	0.3	1	0.1	1	4.5
Myeloproliferative Myelodysplastic	83	8.2	48	10.6	35	6.3	79	8.3	3	6.8
Mesothelioma	9	0.8	8	1.5	1	0.2	9	0.9	0	0.0
Other Sites	82	8.1	42	9.4	40	7.0	78	8.3	4	9.5

Rates per 100,000 age-adjusted to the 2000 US standard population and 2013 SD estimated population.
Source: South Dakota Department of Health

Table 3 above shows incidence and age-adjusted incidence rates for South Dakota in 2013 by primary sites, gender, and race according to SEER site category recodes (Appendix C).

Table 4: Percentage of Selected Cancers by Age Groups in South Dakota, 2013

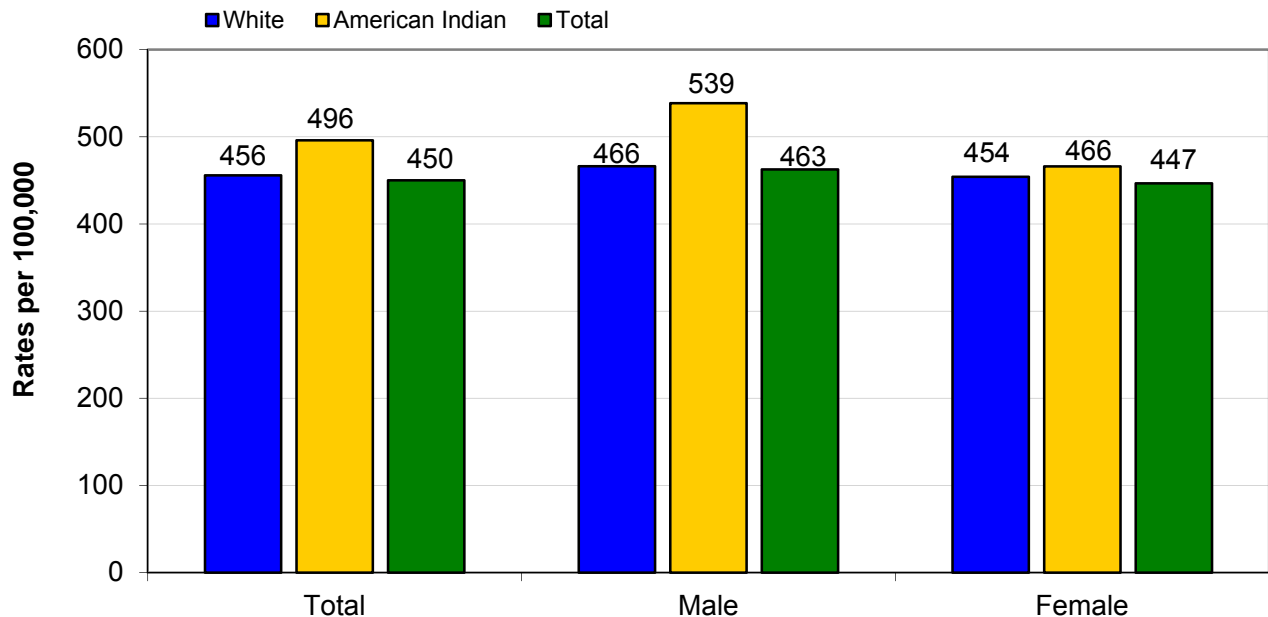
	0-19	20-34	35-49	50-64	65-74	75-84	85+
All Sites	1%	2%	8%	31%	27%	21%	9%
Bladder	0%	0%	3%	20%	33%	30%	13%
Breast, Female	0%	2%	14%	34%	25%	17%	7%
Colorectal	0%	1%	7%	28%	23%	24%	17%
Corpus and Uterus, NOS	0%	1%	7%	51%	23%	11%	7%
Hodgkin's Lymphoma	16%	32%	21%	16%	11%	5%	0%
Kidney and Renal Pelvis	1%	1%	8%	40%	26%	17%	7%
Leukemia	6%	3%	7%	26%	23%	24%	11%
Lung and Bronchus	0%	0%	2%	27%	32%	29%	10%
Melanomas of the Skin	0%	5%	16%	35%	20%	16%	7%
Non-Hodgkin's Lymphoma	1%	4%	8%	23%	22%	23%	18%
Pancreas	0%	1%	2%	28%	29%	28%	11%
Prostate	0%	0%	1%	40%	40%	17%	3%
Thyroid	0%	22%	26%	35%	10%	7%	0%

Source: South Dakota Department of Health

In 2013, 58% of all cancers were diagnosed between ages 50 to 74 (Table 4). Notable were the 14% of female breast cancers and 26 % of thyroid cancers diagnosed between the ages of 35 to 49. In 2013, 48% of the Hodgkin's lymphoma cases were diagnosed in persons under 35 years old, compared to 39% in 2012.

Figure 1 below shows that incidence rates for American Indians in South Dakota were higher than those for whites in 2013. Of the 4,417 newly diagnosed cases in 2013, 222 or 5.0% were American Indians, 106 males and 116 females.

Figure 1: All Sites Cancer Incidence Rates by Race and Gender, South Dakota, 2013



Note: Rates per 100,000 age-adjusted to the 2000 US standard population and 2013 SD estimated population.
Source: South Dakota Department of Health