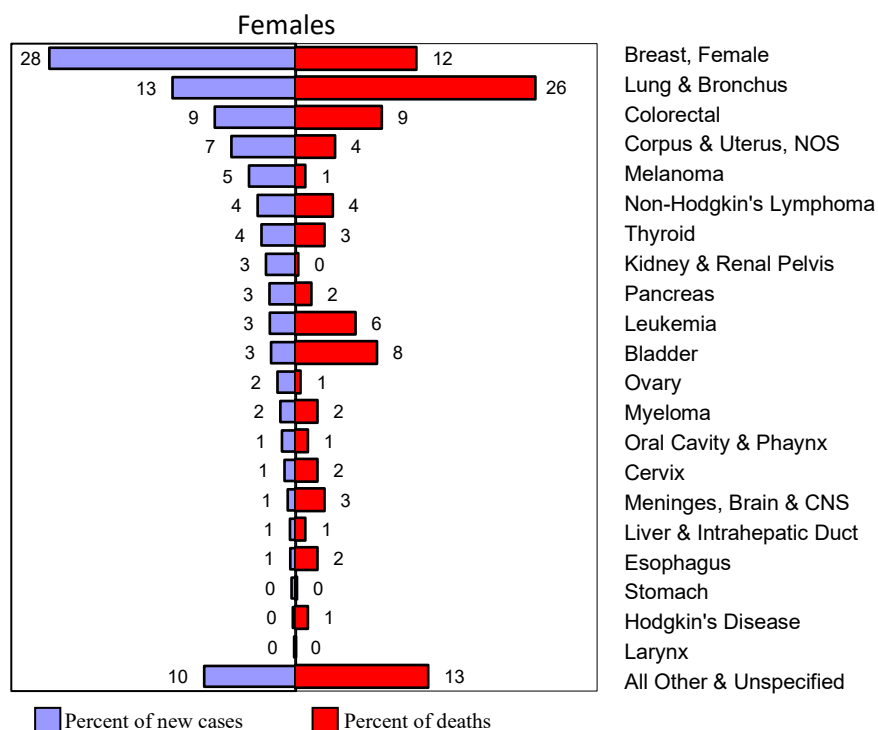
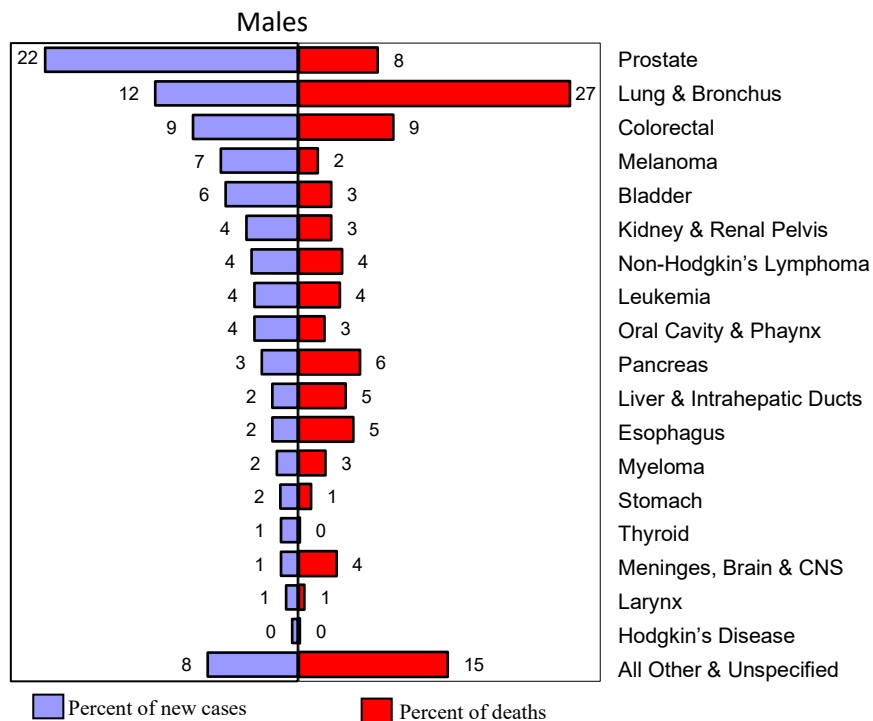


## V. CANCER CASES AND DEATHS BY RANK

Prostate cancer was the most common cancer diagnosed during 2017. The five most diagnosed cancers were prostate, female breast, lung and bronchus, colorectal, and melanoma, which accounted for 54.7% of the new cases diagnosed and 45.2% of cancer deaths. Figure 2 shows the percent of new cancer cases and deaths by rank and gender.

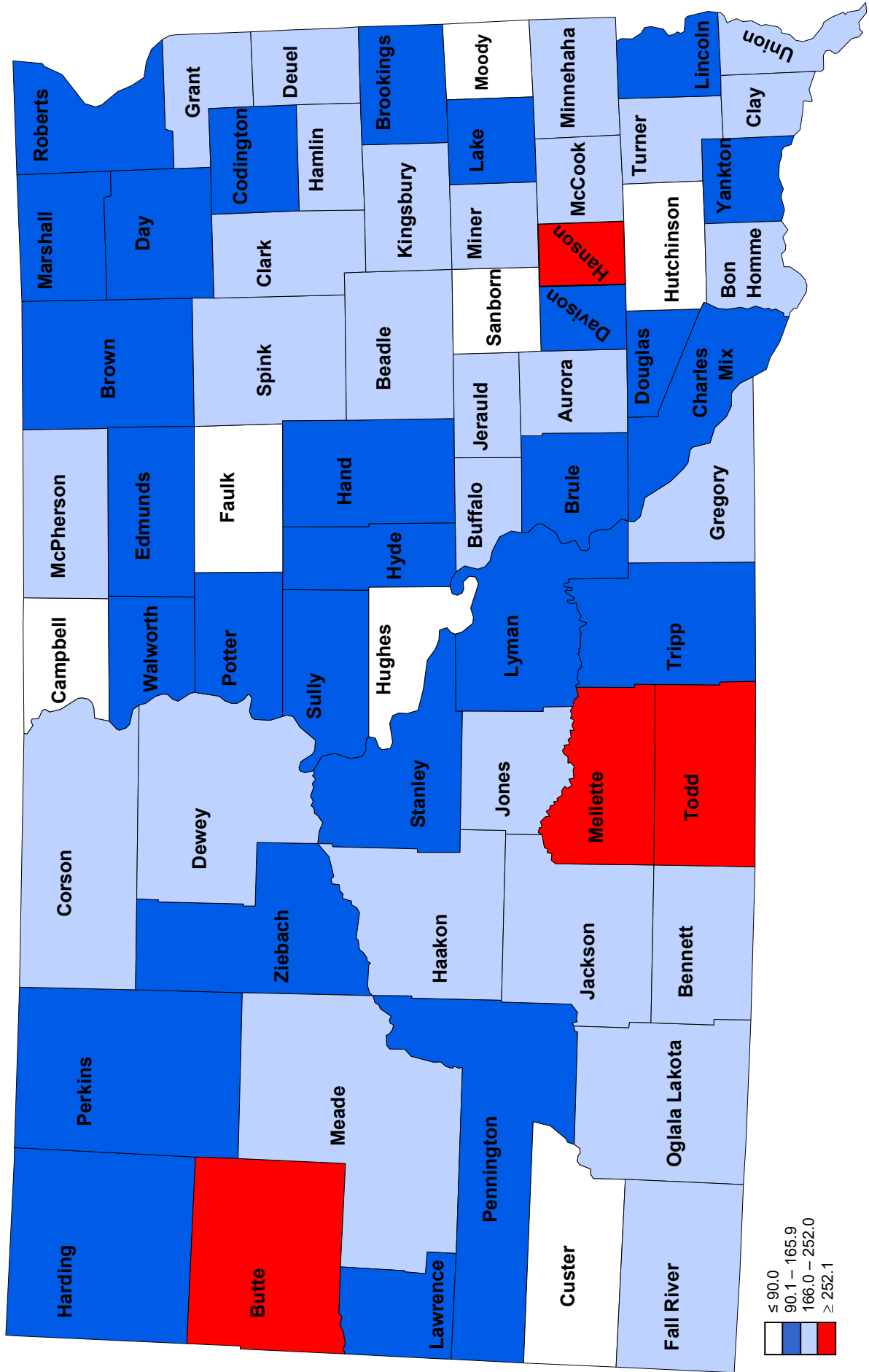
**Figure 2: Percent Distribution of Cancer Cases and Deaths by Rank and Gender, South Dakota, 2017**



Source: South Dakota Department of Health



Figure 4: Cancer Mortality Rates by County, South Dakota, 2017



Note: Rates per 100,000 age-adjusted to 2000 US standard population and 2017 SD estimated population. Source: South Dakota Department of Health

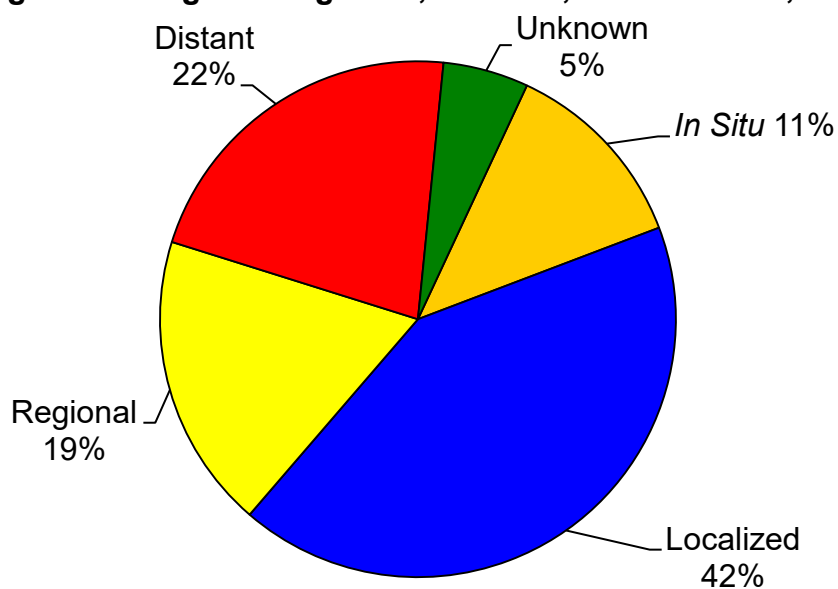
South Dakota has an area of 77,121 square miles with a 2017 estimated population of 869,666 persons resulting in a population density of 11 persons per square mile. Population densities range from a low of 0.5 in Harding County to a high of 210.0 persons per square mile in Minnehaha County.

## VI. STAGE AT DIAGNOSIS

### SEER Summary Staging:

- ***In Situ*** - Malignant cells are within the cell groups from which they arose, without penetration of the basement membrane of the tissue and stromal invasion.
- **Localized** - The malignant cells are limited to the organ of origin and have spread no farther than the organ where they began.
- **Regional** - The tumor is beyond the limits of the organ of origin by direct extension to adjacent areas such as the regional lymph nodes, adjacent organs, or tissue.
- **Distant** - The tumor cells have broken away from the primary tumor and traveled to other parts of the body.
- **Unknown** - If extension or metastatic, there is not sufficient evidence available to assign a stage.

**Figure 5: Stage at Diagnosis, All Sites, South Dakota, 2017**



Source: South Dakota Department of Health

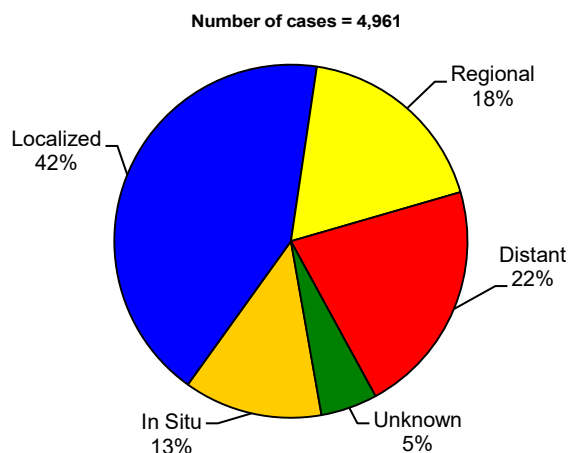
The figure above demonstrates the percentage of cases diagnosed at each stage of disease. For 2017, there were a total of 5,284 cases reported to the South Dakota State Cancer Registry, which includes *in situ* cases. The number of cases are in Table 5.

**Table 5: South Dakota Stage at Diagnosis, All Cases, 2017**

Stage	Number of Cases	Percent of Total
<i>In Situ</i>	649	12%
Localized	2224	42%
Regional	979	19%
Distant	1149	22%
Unknown	283	5%

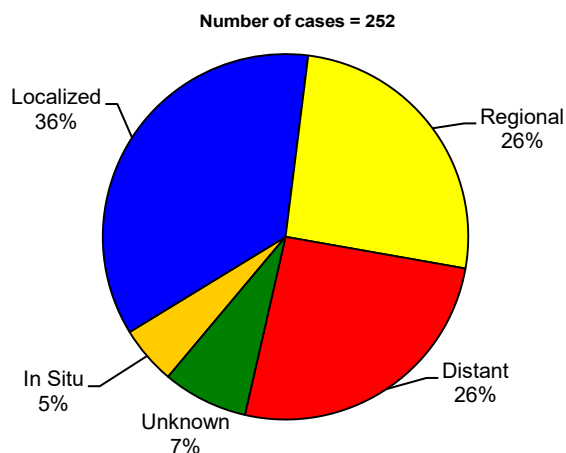
When analyzed by race, 42% of all cancer cases diagnosed for whites were diagnosed at localized stage and 36% for American Indians. American Indians had another 52% diagnosed at the regional and distant stages combined, while the same stages for whites were a combined 40%. Stage at diagnosis by race was as follows:

**Figure 6: Stage at Diagnosis in South Dakota, White, 2017**



Source: South Dakota Department of Health

**Figure 7: Stage at Diagnosis in South Dakota, American Indians, 2017**



Source: South Dakota Department of Health

Cases of non-Hodgkin's lymphoma, myeloma, and leukemias are usually at distant stages, and therefore can skew the proportion of all sites diagnosed at distant stages. Some differences in case counts by stage for selected sites are shown in Table 6.

**Table 6: Stage at Diagnosis for Selected Sites by Race, South Dakota, 2017**

	White						American Indian					
	Localized		Regional		Distant		Localized		Regional		Distant	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Female Breast	448	21.3%	126	14.0%	26	2.4%	16	17.8%	17	26.2%	1	1.5%
Lung and Bronchus	151	7.2%	137	15.2%	245	22.9%	9	10.0%	8	12.3%	18	27.7%
Prostate	463	22.0%	100	11.1%	31	2.9%	24	26.7%	3	4.6%	3	4.6%
Melanoma of the Skin	241	11.4%	21	2.3%	10	0.9%	2	2.2%	0	0.0%	0	0.0%
Colorectal	134	6.4%	161	17.9%	70	6.6%	4	4.4%	11	16.9%	12	18.5%
Bladder	53	2.5%	16	1.8%	9	0.8%	2	2.2%	1	1.5%	1	1.5%
Non-Hodgkin's Lymphoma	42	2.0%	21	2.3%	102	9.6%	2	2.2%	5	7.7%	3	4.6%
Kidney and Renal Pelvis	101	4.8%	23	2.6%	30	2.8%	7	7.8%	1	1.5%	2	3.1%
Corpus and Uterus, NOS	114	5.4%	18	2.0%	10	0.9%	9	10.0%	0	0.0%	0	0.0%
Leukemia	1	0.0%	1	0.1%	159	14.9%	0	0.0%	0	0.0%	8	12.3%
Thyroid	61	2.9%	29	3.2%	2	0.2%	2	2.2%	2	3.1%	1	1.5%
Pancreas	18	0.9%	32	3.6%	68	6.4%	0	0.0%	1	1.5%	5	7.7%

Source: South Dakota Department of Health