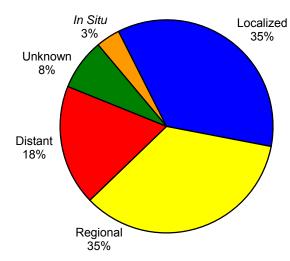
| Table 15: Colorectal Incidence and Mortality Summary, 2011 |
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| Colorectal Cancer | | | Incidence | | | Mortality | | |
|-------------------|-----------------|-------------------|-----------|------|--------|-----------|--------|--------|
| | | | Total | Male | Female | Total | Male | Female |
| South Dakota | Total | # Cases / Deaths | 421 | 230 | 191 | 136 | 68 | 68 |
| | | Age Adjusted Rate | 43.8 | 52.1 | 35.5 | 13.7 | 15.9 | 11.2 |
| | White | # Cases / Deaths | 386 | 207 | 179 | 124 | 62 | 62 |
| | | Age Adjusted Rate | 42.4 | 49.8 | 35.1 | 13.0 | 15.2 | 10.6 |
| | American Indian | # Cases / Deaths | 31 | 21 | 10 | 11 | 6 | 5 |
| | | Age Adjusted Rate | 69.0 | 96.1 | 44.7 | 33.6 | 36.3 | 30.9 |
| United States | Total | Age Adjusted Rate | 40.3 | 46.5 | 35.3 | * 15.5 | * 18.7 | * 13.0 |
| | White | Age Adjusted Rate | 39.3 | 45.2 | 34.3 | * 15.0 | * 18.1 | * 12.6 |
| | American Indian | Age Adjusted Rate | 41.1 | 47.9 | 35.1 | * 16.6 | * 19.2 | * 14.7 |

Rates per 100,000 age-adjusted to 2000 US standard population and 2011 SD estimated population.

Source: South Dakota Department of Health

Figure 27: Colorectal Cancer Stage at Diagnosis, South Dakota, 2011



Source: South Dakota Department of Health

Descriptive Epidemiology

Stage at Diagnosis: The prognosis of the patient is greatly influenced by the stage of disease at diagnosis. In 2011, 35% (155) of the cases of colorectal cancer were diagnosed at localized stage. Localized is defined as when the disease is still confined to the colon. The remaining 232 invasive cases (53%) were diagnosed after the disease had spread beyond the colon. Of those 232 cases, 80 were diagnosed at distant stage when the disease had spread further involving other organs. The SEER National Cancer Institute website states that the 5-year survival rate for those who have distant stage at diagnosis is 12.9% for the 2004-2010 time period.

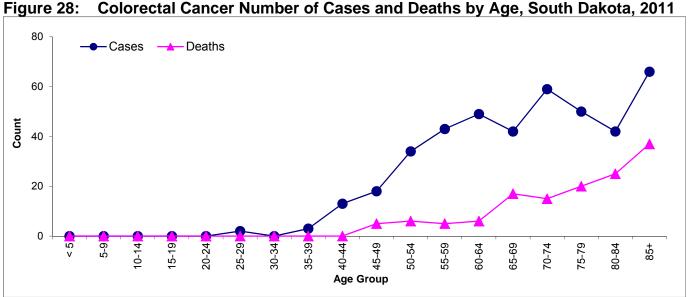
Incidence: Colorectal cancer accounted for 9.7% of all cases reported in South Dakota in 2011. The median age at diagnosis was 70. There were 230 men and 191 women diagnosed with colorectal cancer in 2011 in South Dakota. Overall, colorectal cancer was the fourth most diagnosed cancer. When reviewed by gender, it was the third most diagnosed cancer with 10.6% of the cancers reported in males and 8.9% of the cancers reported in females.

Mortality: Overall incidence and mortality rates for colorectal cancer are decreasing. The overall 5-year survival rate for 2004-2010 from SEER was 64.7% for men and women. In 2011, there were a total of 136 deaths that were attributed to colorectal cancer in South Dakota; half were men and half were women. Of that number, 124 were white and 11 were American Indian. The median age at death was 78. The SEER National Cancer Institute website states that the United States mortality rate in 2010 was 15.5.

Risk and Associated Factors: Studies have shown that diets high in fat and low in fiber result in an increased risk for colon cancer. Diets also that are low in fresh fruit and vegetables increase the risk. Obesity is also listed as a risk factor.

Prevention and Early Detection: Doctors believe that most colon cancers develop in colon polyps. Therefore, removing benign colon polyps can prevent colorectal cancer. Colon polyps are initially benign but over years can become cancerous. Screening guidelines suggest having a colonoscopy every ten years beginning at the age of 50.

^{*} US Mortality rates are from 2010, the 2011 rate is not available at this time. US rates www.seer.cancer.gov



Source: South Dakota Department of Health

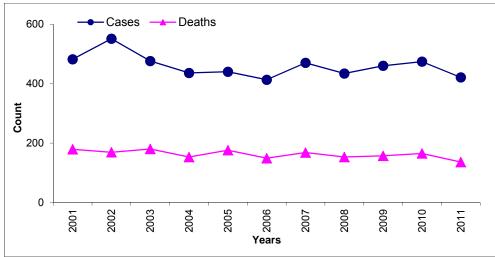


Figure 29: Colorectal Cancer Cases and Deaths by Year, South Dakota, 2001 - 2011

The incidence peak for colorectal cancer occurred in 2002. Incidences of colorectal cancer appear to escalate after age 50.

Source: South Dakota Department of Health

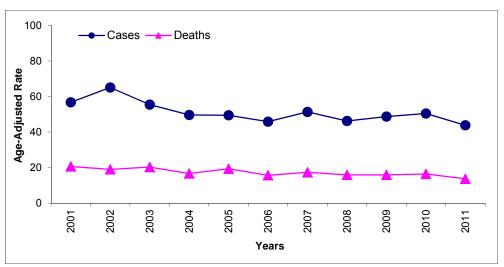


Figure 30: Colorectal Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001 - 2011

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