

## BREAST (FEMALE)

**Table 13: Female Breast Incidence and Mortality Summary, 2010**

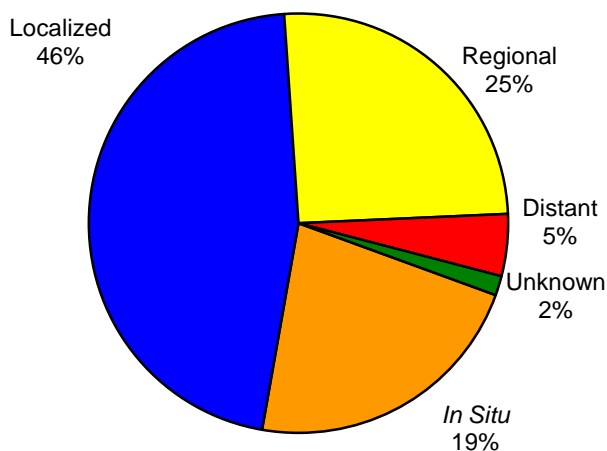
Female Breast Cancer			Incidence	Mortality
South Dakota	Total	# Cases / Deaths	521	103
		Age Adjusted Rate	109.7	19.6
	White	# Cases / Deaths	486	99
		Age Adjusted Rate	109.6	19.9
	American Indian	# Cases / Deaths	27	3
		Age Adjusted Rate	115.0	14.3
United States	Total	Age Adjusted Rate	* 125.0	* 22.2
	White	Age Adjusted Rate	* 127.8	* 21.6
	American Indian	Age Adjusted Rate	* 78.7	* 15.9

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

\* US Incidence and Mortality rates are from 2009, the 2010 rate is not available at this time.

US rates [www.seer.cancer.gov](http://www.seer.cancer.gov) Source: South Dakota Department of Health

**Figure 19: Female Breast Cancer Stage at Diagnosis, South Dakota, 2010**



Source: South Dakota Health Department

### Descriptive Epidemiology

**Stage at Diagnosis:** Including *in situ* female breast cancer cases there were 670 cases diagnosed in 2010, of which 309 cases were diagnosed at localized stage. This represents 46% of all reported breast cancer cases. There were 170 cases that had progressed beyond the breast. There were 32 that were diagnosed as a distant stage and 10 that were staged as unknown. The 149 *in situ* female breast cancer cases are reported but are not used in calculating incidence rates.

**Incidence:** Female breast cancer is the most common malignant tumor among women. The incidence rate increased from 1947-1990. The rates fell 3.5% per year from 2001-2005. This decrease may be in part due to the lower number of women using hormone replacement therapy. There were 521 cases of invasive female breast

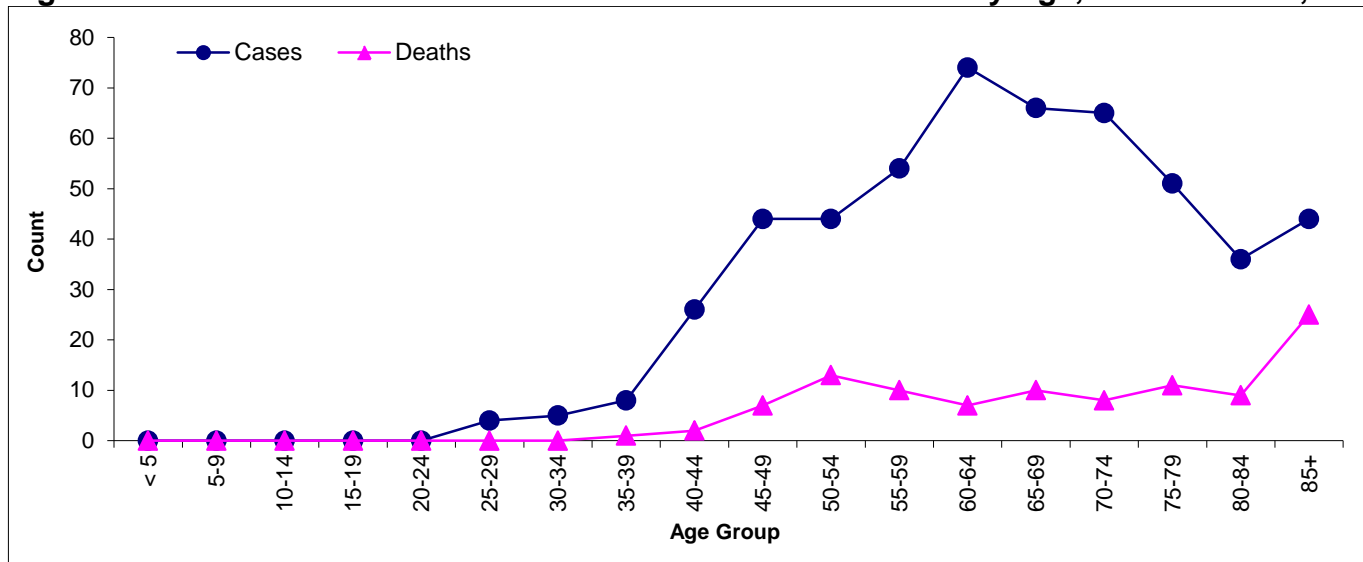
cancer reported in 2010. In South Dakota, 13.3% of all invasive cancer cases reported in 2010 were female breast. Nationally, 13.5% of all cancer cases are female breast cancer. Breast cancer represented 27% of the cancer cases diagnosed for South Dakota women in 2010.

**Mortality:** Breast cancer is the third leading cause of death attributed to cancer in South Dakota. Nationwide, breast cancer mortality has been relatively stable overall since 1950. In cancers only of women, it is the second leading cause of cancer deaths. Although mortality has increased among women older than 55 years, it has decreased among women younger than 55 years of age. In 2010, there were 103 deaths. Of those deaths, 99 were white and three were American Indian.

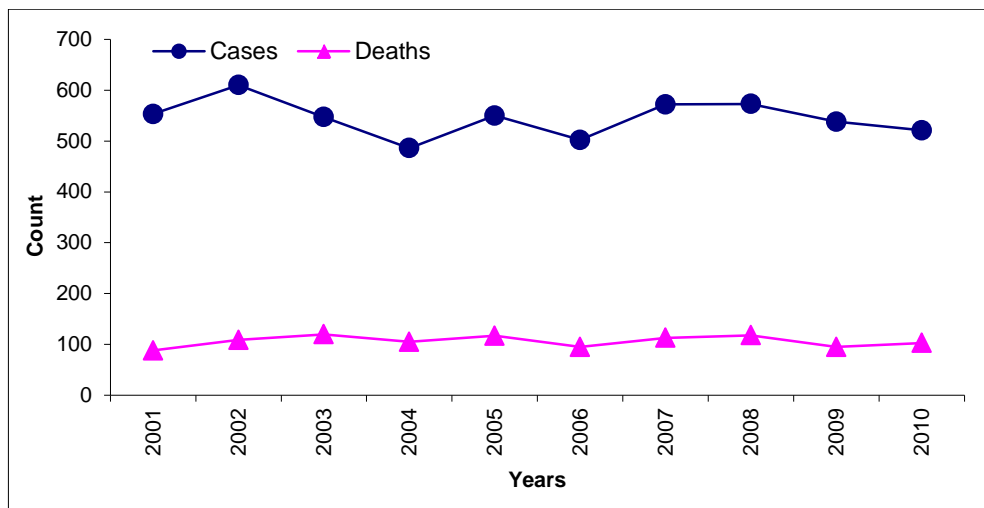
**Risk and Associated Factors:** Among the known risk factors for breast cancer are early onset of menarche, late onset of menopause, never having been pregnant, first full term pregnancy after age 30 and fewer number of children; these factors increase the risk because of cumulative exposure of breast tissue to estrogen. Other risk factors include high fat diets, obesity, alcohol consumption, history of fibrocystic disease, having a mother or sister with breast cancer, a personal history of ovarian or endometrial cancer and specific tumor suppressor genes such as BRCA1 and BRCA2.

**Prevention and Early Detection:** Prevention and early detection is the key to survival of breast cancer. Monthly self-examination and annual examination by a health professional are the mainstays of early detection. Mammograms should begin at age 40.

**Figure 20: Female Breast Cancer Number of Cases and Deaths by Age, South Dakota, 2010**



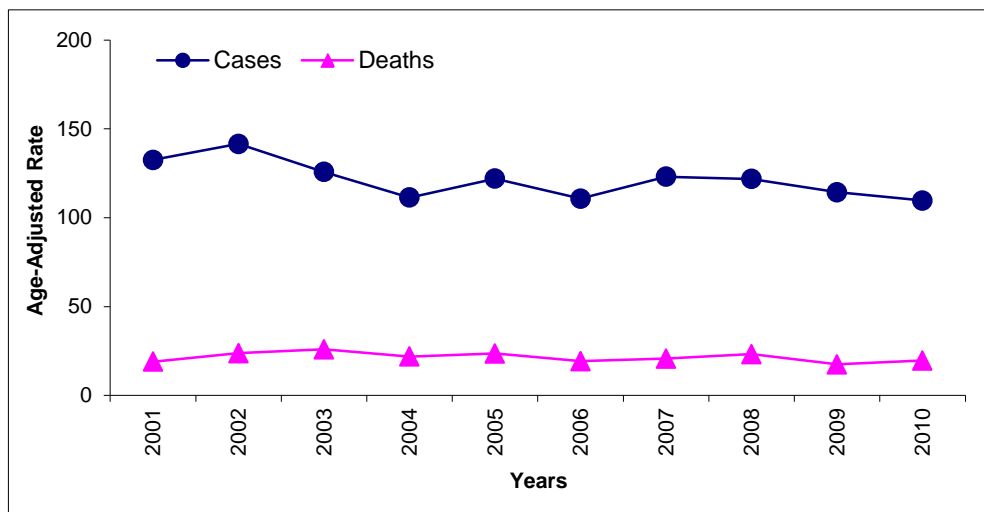
Source: South Dakota Department of Health



**Figure 21: Female Breast Cancer Cases and Deaths by Year, South Dakota, 2001 - 2010**

The incidence peak for female breast cancer was in 2002.

Source: South Dakota Department of Health



**Figure 22: Female Breast Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001 - 2010**

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