

# Female Breast Cancer in South Dakota

October 2023

## Breast Cancer

### Signs and Symptoms

Breast cancer often does not have any obvious symptoms.

### Warning signs may include:

- New lump in the breast or underarm (armpit)
- Thickening or swelling of the breast
- Irritation or dimpling of the breast skin
- Redness or flaky skin in the nipple area
- Pulling-in of the nipple or pain in the nipple area
- Nipple discharge other than breast milk, including blood
- Any change in the size or the shape of the breast
- Pain in any area of the breast



## Female breast cancer is the most common cancer diagnosed among women in South Dakota.

In 2023, approximately 760 women will receive a diagnosis of invasive breast cancer in South Dakota (SD) and 110 women will die from the disease.<sup>1</sup>

### Incidence

In the United States (US), incidence rates of invasive female breast cancer decreased by 2.4% per year from 2000 to 2004. However, from 2004 to 2019, they steadily increased by approximately 0.5% per year.<sup>2</sup> This increase may be attributed to a rise in the prevalence of obesity and changes in reproductive patterns, such as a decrease in the fertility rate and an increase in the age at first childbirth.<sup>1</sup>

In SD from 2002 to 2019, breast cancer incidence trends remained stable.<sup>3</sup> According to the SD Cancer Registry (SDCR), there were 599 reported cases of invasive breast cancer in 2020, accounting for 12.9% of all invasive cancer cases and 27.5% of all cancer cases among women.<sup>4</sup> From 2016 to 2020, the age-adjusted incidence rate was 123.1, with American Indian (AI) women having a lower rate (119.3) than White women (126.4).<sup>4</sup>

**Nearly 7 in 10** women that were diagnosed with breast cancer from 2016-2020 had localized stage disease

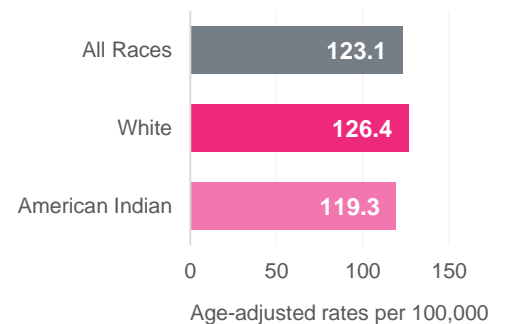
## Topics

Incidence of Breast Cancer **P.1**

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Screening **P.3-4**

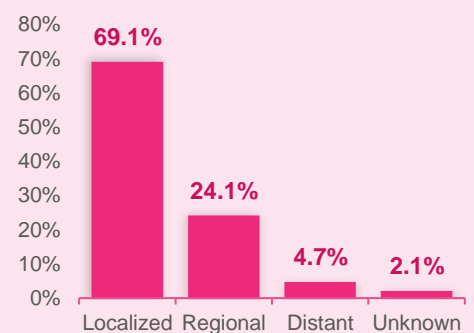
Age-Adjusted Breast Cancer Incidence by Race in SD, 2016-2020



Data Source: South Dakota Cancer Registry

### Stage at Diagnosis

A stage at diagnosis is applied to assess the spread of cancer. Among the 3,199 invasive cases diagnosed from 2016 to 2020, 2,210 cases were diagnosed at a localized stage, representing 69.1% of all reported breast cancer cases. Additionally, 24.1% of all cases were diagnosed at a regional stage, while 4.7% were diagnosed as a distant stage, and 2.1% were diagnosed as a distant stage in SD.<sup>4</sup>



## Lifestyle Risk Factors

**Strong Evidence** suggests that the following factors **increase the risk** of breast cancer:



**Alcohol Intake**



**High BMI**



**Physical Inactivity**

## Other Risk Factors

**Age:** The risk of breast cancer increases with age

**Family history:** 5% of cancer cases are genetic

**Early periods:** Before age 12

**Late menopause:** After age 55 can increase risk of breast cancer



**1 in 8** women will be **diagnosed** with **breast cancer** in their lifetime.



Female breast cancer is the second leading cause of cancer related deaths.

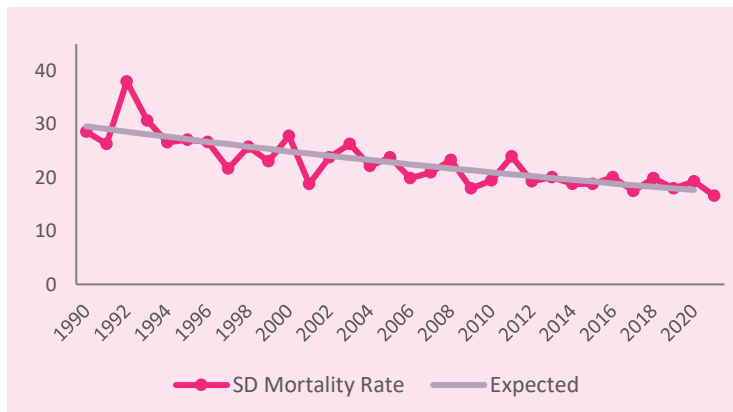
### Mortality

In SD, female breast cancer is the second leading cause of cancer-related deaths.<sup>4</sup> Nationwide, breast cancer mortality rates have decreased approximately 1.3% per year from 2011 to 2020.<sup>2</sup> In SD, similar trends are observed, with mortality rates decreasing 1.7% per year from 1990 to 2020.

In 2021, there were 97 reported deaths from breast cancer in the state.

The death rate was 16.6 per 100,000 women in 2021, which was a lower rate in comparison to the death rate of 19.1 in 2020.<sup>4</sup>

However, when considering 5-year aggregated data (2017-2021), there were 532 deaths, and the overall mortality rate was 20.1. Mortality rates among AI women (27.4) were approximately 36% higher than rates among White women (20.2).



Data Source: NCI State Cancer Profiles<sup>3</sup>

**Breast cancer** mortality rates have been **declining** in South Dakota

Note: South Dakota age-adjusted mortality rates per 100,000 women, *in situ* cases excluded.

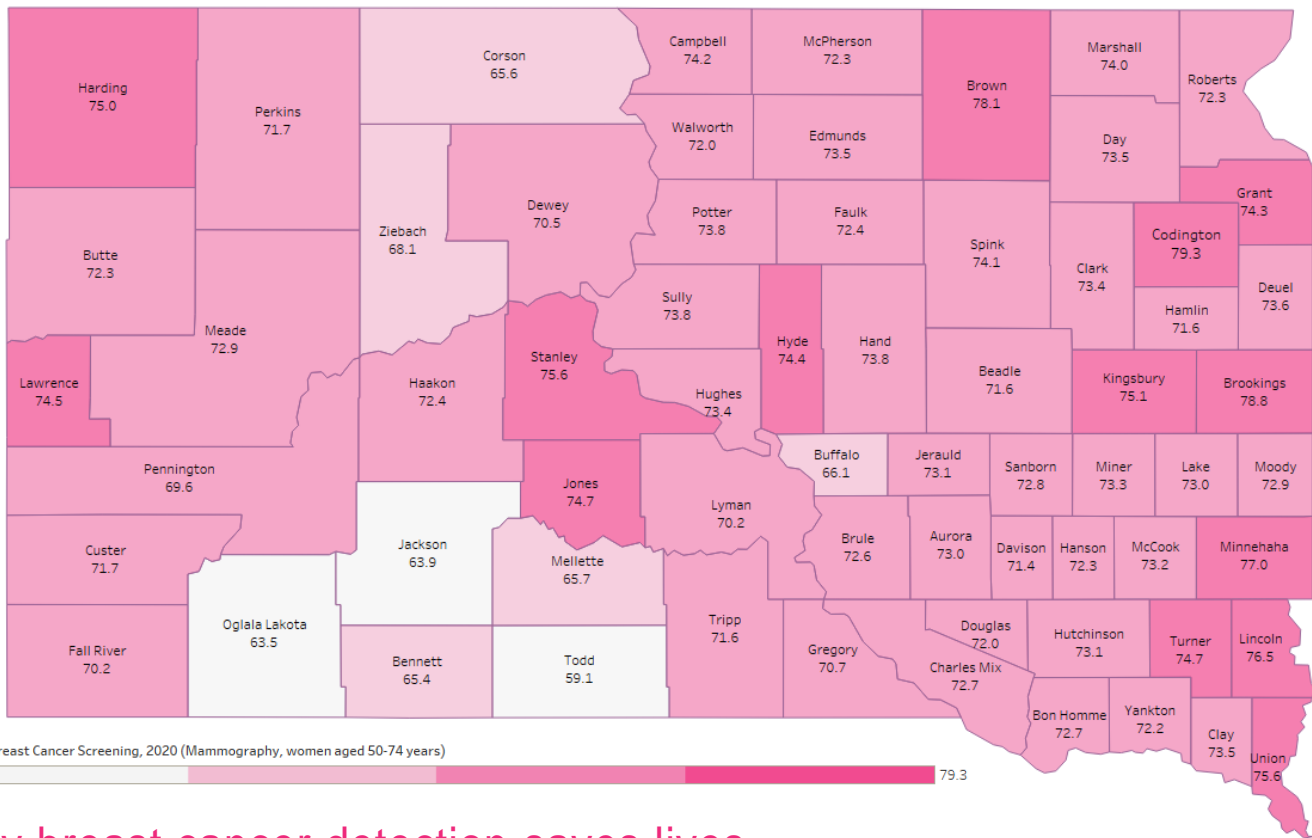
### Survival

The survival rates for invasive breast cancer are relatively high, with a 5-year relative survival rate at 90.6%. This is attributed to two-thirds of women being diagnosed with localized stage disease, which is associated with better outcomes.

The **survival** rate for breast cancer is **increasing**



Percentage of Women Ages 50-74 Years Who Reported Receiving a Mammogram Within the Last 2 Years, BRFSS 2020, All Races and Ethnicities, Age-Adjusted Prevalence (CDC)<sup>5</sup>



Early breast cancer detection saves lives.

Screening

Early detection is key for breast cancer survival. Breast cancers that are found during a mammogram are more likely to be smaller and still confined to the breast. The US Preventative Services Task Force guideline recommends mammography for women ages 50 to 74 years every 2 years.

The Healthy People 2030 Objective C-05 is to increase the proportion of women who receive breast cancer screening based on the most recent guidelines. The target is 80.3%.<sup>6</sup>

According to the Behavioral Risk Factor Surveillance System (BRFSS) in 2020, 80.5% of women aged 50-74 years had a mammogram within the past two years in SD, slightly higher than the national rate of 78.3%.<sup>7</sup> However, disparities in breast cancer screening persist. In 2020, the percentage of AI women reporting being up to date was 56.3%, which is 25.2% lower than the rate for White women at 81.5%.<sup>7</sup> Furthermore, the latest county-level data in breast cancer screening rates, as presented in the map above, highlights the existence of geographical disparities in the state.

The All Women Count! Program

What is the All Women Count Program?

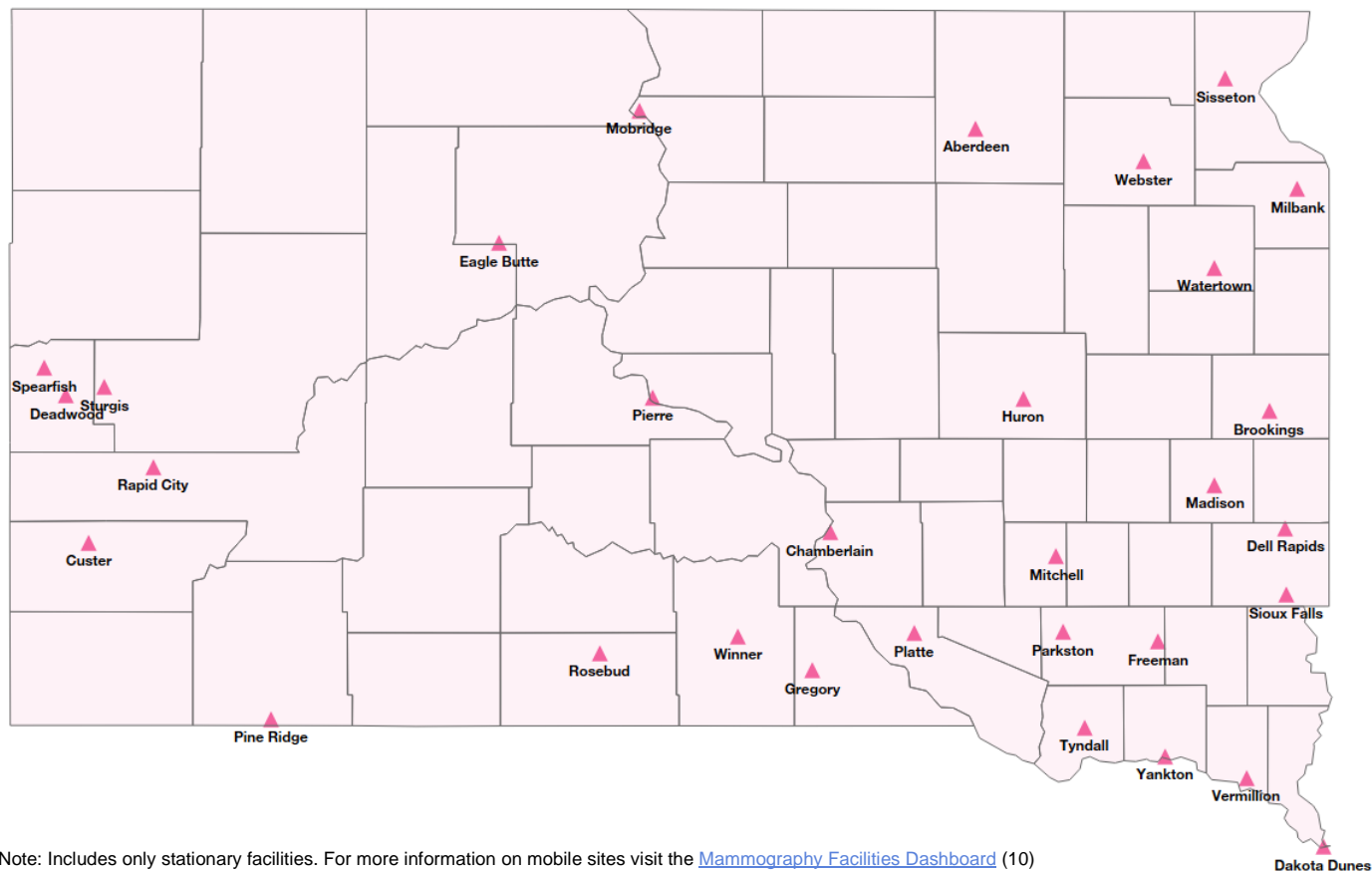
The All Women Count! (AWC!) Program is a statewide breast and cervical cancer screening program for age and income eligible women in South Dakota.<sup>8</sup> The AWC! Program partners with over 200 health care facilities across the state to provide breast and cervical cancer screening and diagnostic services to women ages 30 to 64 who have a family income at or below 250% federal poverty level. Visit <https://www.getscreenedsd.org/awc> to learn more!

How many women are enrolled and screened for breast cancer?

Five-Year Summary (July 2016 to June 2021)<sup>9</sup>

- Women served: 7,385
- Women screened: 5,770
- Mammograms provided: 4,779
- Breast cancers detected: 97
- Rate detection (per 1,000 mammograms): 20.2

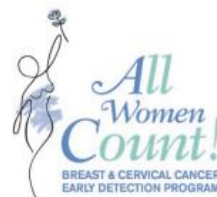
# Location of Mammography Facilities in South Dakota, 2022



Note: Includes only stationary facilities. For more information on mobile sites visit the [Mammography Facilities Dashboard](#) (10)

## References:

1. Siegel, R. L., Miller, K. D., Fuchs, H. E., & Jemal, A. (2023). Cancer statistics, 2023. *CA: A cancer Journal for Clinicians*, 72(1), 7–33. <https://acsjournals.onlinelibrary.wiley.com/doi/full/10.3322/caac.21763>
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3. National Institute of Health, Centers for Disease Control and Prevention (n.d.). *Historical Trends. State Cancer Profiles.* <https://statecancerprofiles.cancer.gov/index.html>
4. South Dakota Cancer Registry. *Cancer in South Dakota, 2019.* Department of Health, Pierre, SD. April 2023.
5. Centers for Disease Control and Prevention. PLACES: Local Data for Better Health, County Data 2022 release. <https://chronicdata.cdc.gov/500-Cities-Places/PLACES-Local-Data-for-Better-Health-County-Data-20/swc5-untb>
6. U.S. Department of Health and Human Services. *Healthy People 2030.* <https://health.gov/healthypeople>
7. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. <https://www.cdc.gov/brfss/index.html>
8. South Dakota Department of Health. All Women Count! (n.d.). <https://www.getscreenedsd.org/>
9. Centers for Disease Control and Prevention. *South Dakota Five-Year Summary: July 2016 to June 2021.* [https://www.cdc.gov/cancer/nbccedp/data/summaries/south\\_dakota.htm](https://www.cdc.gov/cancer/nbccedp/data/summaries/south_dakota.htm)
10. South Dakota Cancer Coalition. Breast Cancer Dashboard/ Location of mammography Facilities. <https://www.cancersd.com/resources/breast-cancer-dashboard/>



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