

Breast Cancer

What is the breast?

The breast is an organ that contains glands called lobules that produce breast milk. Ducts or channels transport the milk from the glands to the nipple. There are also blood vessels and lymphatics present. Located in the center of each breast is a nipple bordered by a circular pigmented area of skin called the areola.

What is breast cancer?

Breast cancer is not just one disease but a term used to describe a number of different types of cancers that occur in the breast. Each type of breast cancer behaves differently and has a different prognosis. Breast cancer is categorized as invasive (infiltrating) or non-invasive (in situ). Invasive cancers have the capability of growing directly into other parts of the body, or traveling in the blood or lymph fluid to these areas.

What are the risk factors?

The single most important factor in developing breast cancer is age. Some additional risk factors include a personal history of breast cancer, biopsy-confirmed atypical hyperplasia, a long menstrual history, obesity after menopause, tobacco use, consumption of alcohol, breast density, recent use of oral contraceptives or post-menopausal estrogens or progestins, never having a child or having a first child after the age of 30.

What are the signs and symptoms?

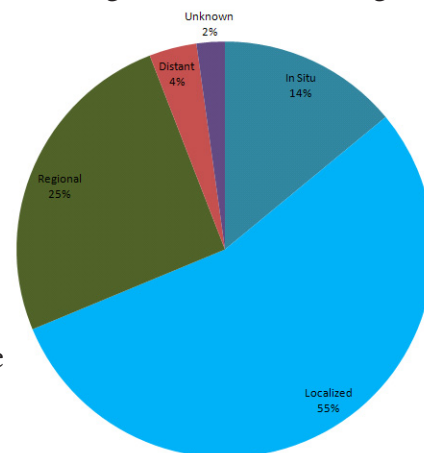
The earliest sign of breast cancer is an abnormality that shows up on a mammogram before it can be felt by the woman or her physician. Other signs and symptoms may include a lump or thickening of the breast, change in size or shape of the breast, swelling, distortion or tenderness, skin irritation, nipple pain or discharge, nipple inversion, ulceration or retraction. Breast feeding, moderate or vigorous physical activity, and maintaining a healthy body weight are all associated with lower risk of breast cancer.

How is it diagnosed?

Breast cancer diagnosis may be made by a clinical breast examination, mammography, ultrasonography, fine-needle aspiration, and needle or surgical biopsy.

Diagnosis

In the 2003-2007 time period, 14 percent of breast cancers were diagnosed at in situ stage, 55 percent at localized stage, 25 percent at regional, stage, 4 percent at distant stage and 2 percent were of unknown stage of progression.



What are the common treatments?

Treatment options include: surgery, radiation therapy, chemotherapy, hormonal therapy, and biological therapy.

What are the survival outcomes?

Using 1999-2007 SEER data, the national 5-year relative survival rate estimate is 89 percent. When diagnosed at localized stage, the 5-year relative survival rate is 98 percent. For regional and distant stages, the 5-year relative survival rates are 84 percent and 23 percent respectively. The survival rate when the stage of diagnosis could not be determined was estimated at 55 percent.

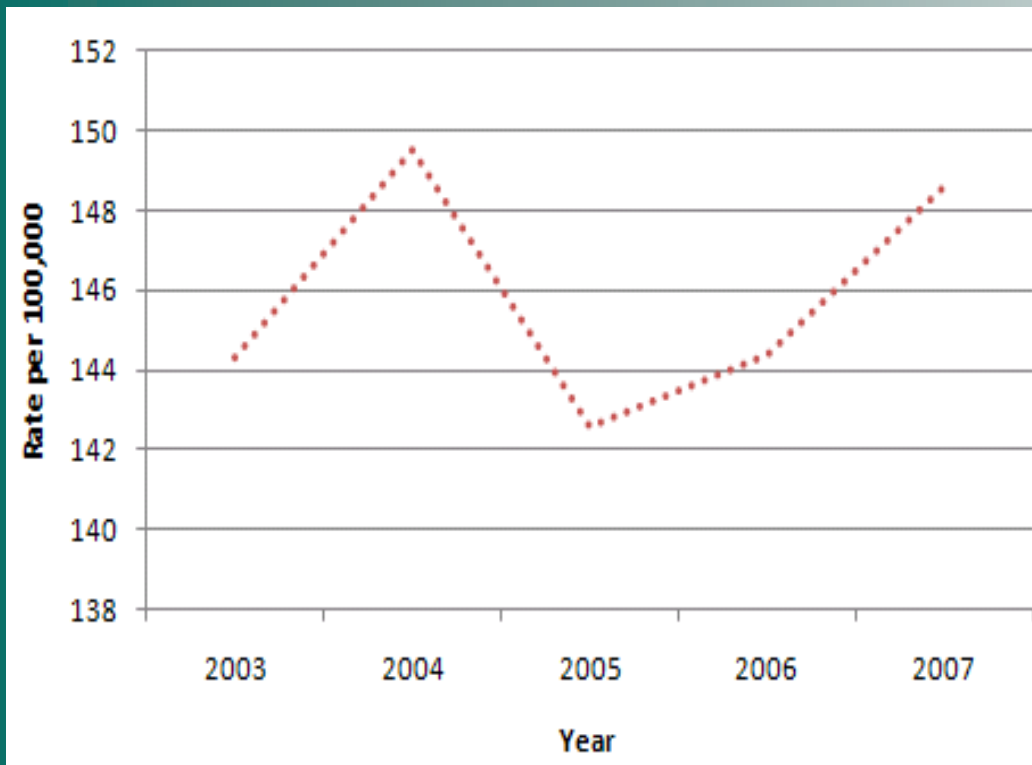
What can you tell me about this cancer in North Dakota?

Summary Statistics 2003-2007	ND	WNC	US
INCIDENCE			
Annual age-adjusted incidence rates*	123.4	122.6	120.5
Average number of new cases	457	13,783	200,710
Percent of all new cancers	13.63	13.77	13.93
MORTALITY			
Annual age-adjusted mortality rates*	22.4	23.4	24.0
Average number of deaths each year	92	2,830	41,021
Percent of all cancer deaths	7.02	7.16	7.34
* Rates per 100,000 and standardized to U.S. year 2000 population.	WNC and US data source: http://apps.nccd.cdc.gov/uscs		

☞ The West North Central (WNC) regions include the following states: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota.

INCIDENCE:

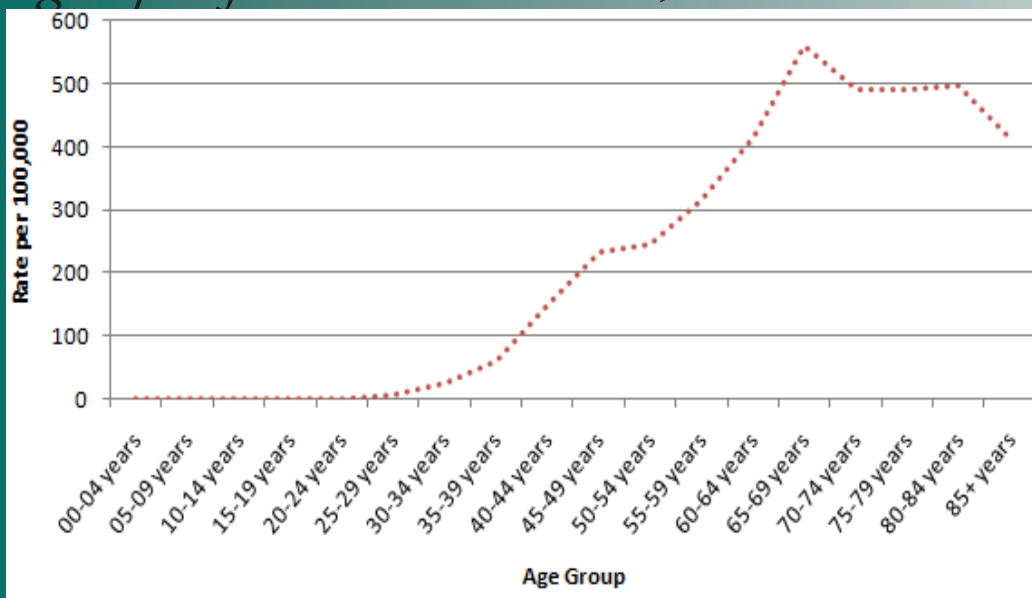
Incidence Rates by Gender, North Dakota 2003-2007



☞ An average of 457 new cases of breast cancer are diagnosed each year in North Dakota, which is about 13.6 percent of all cancers diagnosed in the state.

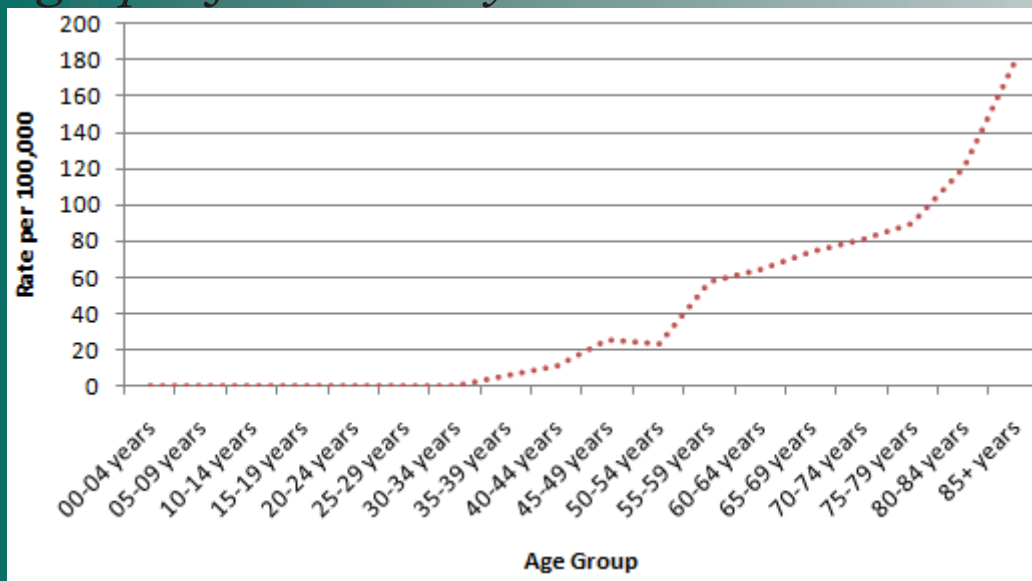
☞ The average annual incidence rate for women is 123.4 per 100,000 women.

Age-Specific Incidence Rates, North Dakota 2003-2007



☞ The annual incidence rate increases with age.

Age-specific Mortality Rates, North Dakota 2003-2007



☞ An average of 92 deaths due to female breast cancer occur each year in North Dakota, which is about 7 percent of all cancer deaths in the state.

☞ The average annual death rate for women is 22.4 per 100,000 women.

☞ Death rate of female breast cancer increases with age.

Glossary of Cancer Terminology

- ☞ **Age-adjusted rate:** Since cancer rates tend to vary with age, and since populations vary with respect to their age-distribution, incidence and mortality rates are age-adjusted to allow comparison of rates between different populations (i.e. county or regional boundaries).
- ☞ **Age-specific rate:** The number of new cases diagnosed per 100,000 individuals over a specified time period for a specified age-group.
- ☞ **Incidence:** The number of new cases of a given type of cancer diagnosed during the year.
- ☞ **Mortality:** The number of deaths attributed to the particular type of cancer that occurred during the year. Includes deaths of patients diagnosed in earlier years, individuals newly diagnosed during the year, and patients for whom a diagnosis of cancer is made only after death.
- ☞ **Risk factor:** Anything that increases a person's chance of getting a disease.
- ☞ **Stage at diagnosis:** How far a cancer has spread from its site of origin when it is diagnosed. There are several different systems for the staging of cancers. This report uses the general summary stage system. The stages, in order of increasing spread, are in situ, localized, regional and distant. Cancers diagnosed at the localized, regional or distant stage are referred to as invasive.



For more information, visit
www.ndhealth.gov/cancerregistry/
 or call 701.328.2306

