

Prostate Cancer

What is the prostate gland?

The prostate gland is located at the base of the urinary bladder and surrounds the first part of the urethra and is the largest accessory gland of the male reproductive system. The urethra is the passage through which urine drains from the bladder to exit from the penis. The normal prostate gland is about the size of a walnut; however, during normal aging it usually grows larger as a condition called benign prostatic hypertrophy.

What is prostate cancer?

Prostate cancer is a malignant tumor that grows slowly and remains confined to the gland for many years. Almost all prostate cancers are adenocarcinomas. As the cancer advances, it can spread beyond the prostate into the surrounding tissues and can metastasize or spread throughout other areas of the body.

What are the risk factors?

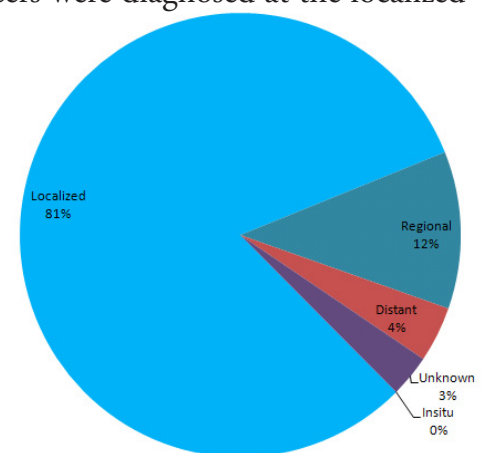
The causes of prostate cancer are not well understood. The chance of having prostate cancer increases rapidly after age 50. More than 70 percent of all prostate cancers are diagnosed in men older than 65. Black Americans have the highest prostate cancer incidence rate. The only well-established risk factors according to the American Cancer Society are age, ethnicity and family history of the disease. Regular physical activity and a healthy weight may help reduce prostate cancer risk.

What are the signs and symptoms?

Some prostate cancers are slow growing and may not be life threatening. Other prostate cancers are more aggressive and may rapidly progress and spread despite screening and early detection. There are other cases of prostate cancer that might be more effectively treated if detected early. Early prostate cancer usually produces no symptoms and is found by a PSA test and/or a digital rectal examination. Some prostate cancers can weaken or interrupt the urine stream, causing inability to urinate, difficulty in starting or stopping the urine flow, the need to urinate more frequently, blood in the urine or continual pain in the lower back, pelvis or thighs. Most of these symptoms are nonspecific and are similar to those caused by benign conditions.

Diagnosis

In the 2003-2007 time period, 81 percent of prostate cancers were diagnosed at the localized stage, 12 percent at regional stage, 4 percent at distant stage and 3 percent were of unknown stage of progression.



How is it diagnosed?

Prostate cancer may be diagnosed by a digital rectal examination, prostatespecific antigen (PSA) blood test, transrectal ultrasonography, intravenous pyelogram, cystoscopy, and/ or biopsy.

Currently, medical experts agree that men should receive information on the pros and cons of prostate cancer screening. However, there is disagreement on whether there should be regular screening for prostate cancer.

What are the common treatments?

Treatment options include: watchful waiting, surgery, radiation therapy, brachytherapy, and hormonal therapy.

What is the survival outcome?

Using 1999-2007 SEER data the national 5-year relative survival rate estimate is 69 percent. When diagnosed at localized stage, the 5-year relative survival rate is 91 percent. For regional and distant stages, the 5-year relative survival rates are 57 percent and 18 percent respectively. The survival rate when the stage of diagnosis could not be determined was estimated at 55 percent.

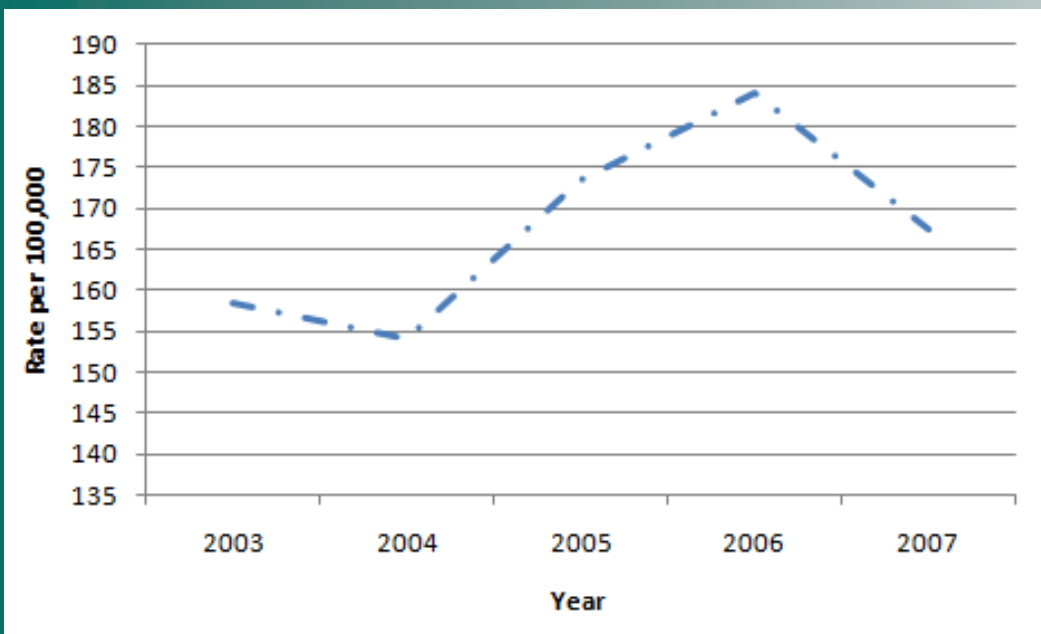
What can you tell me about this cancer in North Dakota?

Summary Statistics 2003-2007	ND	WNC	US
INCIDENCE			
Annual age-adjusted incidence rates*	165.8	154.9	153.6
Average number of new cases	541	14,633	210,819
Percent of all new cancers	16.14	14.62	14.63
MORTALITY			
Annual age-adjusted mortality rates*	26.4	24.5	24.7
Average number of deaths each year	86	2,096	28,985
Percent of all cancer deaths	6.55	5.30	5.19
* 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:

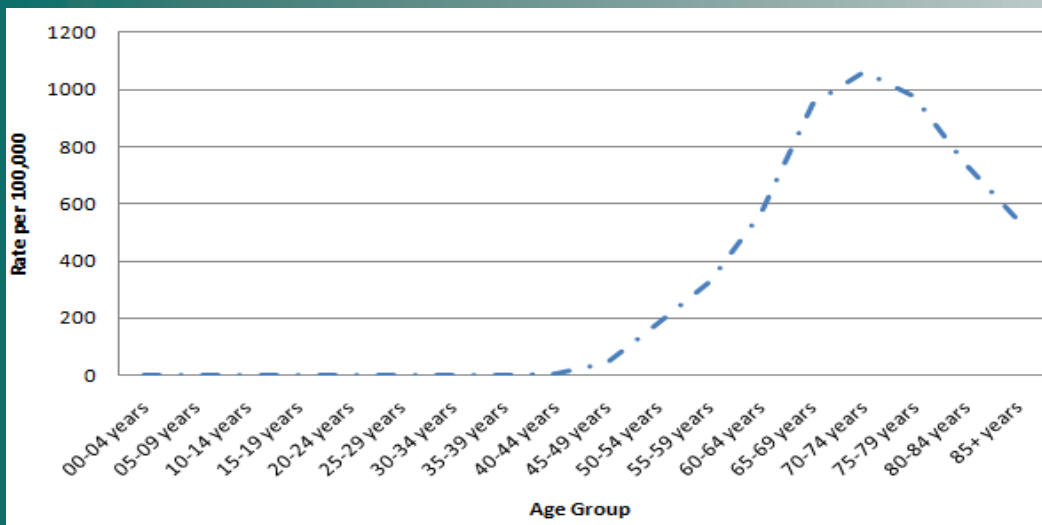
Incidence Rates by Gender, North Dakota 2003-2007



☞ An average of 541 new cases of prostate cancer are diagnosed each year in North Dakota, which is about 16 percent of all cancers diagnosed in the state.

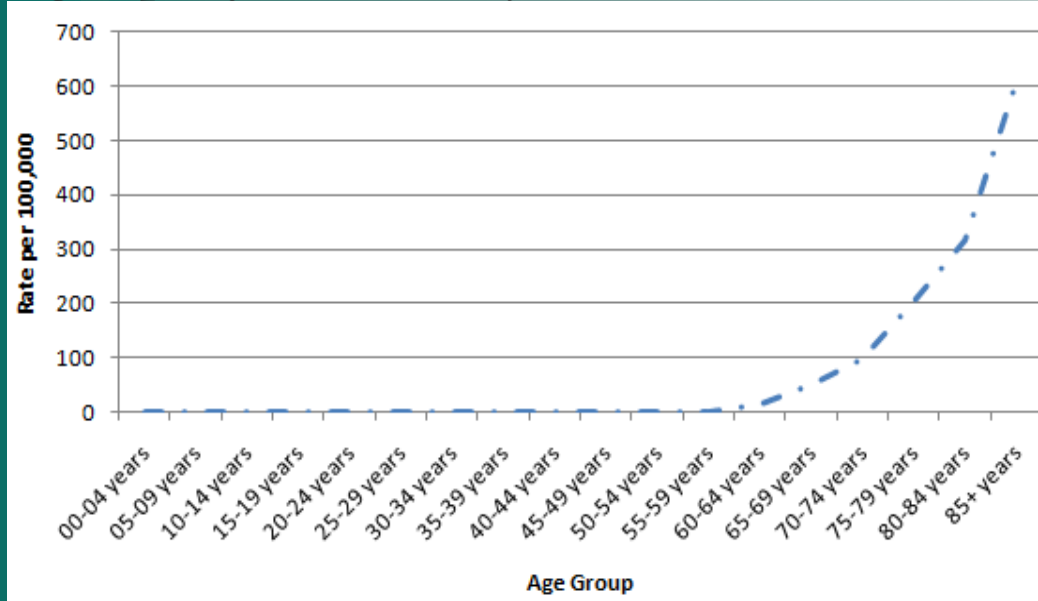
☞ The state's average annual incidence rate for men is 168 per 100,000 men.

Age-Specific Incidence Rates, North Dakota 2003-2007



☞ Prostate cancer incidence rates increase with age.

Age-Specific Mortality Rates, North Dakota 2003-2007



☞ An average of 86 deaths due to prostate cancer occur each year in North Dakota, which is about 7 percent of all cancer deaths in the state.

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

