

Pancreatic Cancer

What is the pancreas gland?

The pancreas gland is a fish-shaped gland located behind the stomach. The pancreas contains two separate glands: the exocrine and endocrine glands. The exocrine gland produces pancreatic “juice” that contains enzymes to help digest food. The endocrine gland contains cells that release insulin and glucagons. Insulin is important in reducing the amount of sugar in the blood, while glucagon increases it.

What is pancreatic cancer?

Pancreatic cancer is hard to diagnose because the organ is hidden behind other organs, therefore, there may be no signs of pancreatic cancer in its first stages. When pancreatic cancer spreads, it usually travels through the lymphatic system into tissues all over the body. Cancer cells can also be carried through the bloodstream to other organs.

What are the risk factors?

Cigarette and cigar smoking increase the risk of pancreatic cancer with rates being twice as high in smokers than nonsmokers. Other risk factors include age, gender, race, obesity, diet, family history, physical inactivity, chronic pancreatitis, diabetes and cirrhosis.

What are the signs and symptoms?

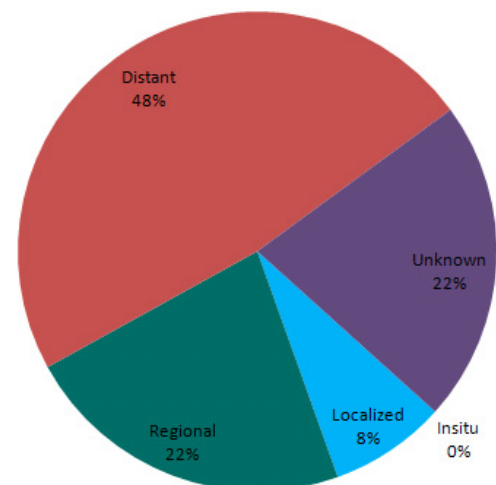
Pancreatic cancer often develops without signs or symptoms. When present, symptoms include weight loss, abdominal discomfort and occasionally glucose intolerance. The tumors that develop near the common bile duct may cause jaundice which allows the tumor to be diagnosed early.

How is it diagnosed?

Pancreatic cancer usually has a poor prognosis due to the fact that very few of the cancers are found early. The need for a biopsy may become obvious only with advanced disease.

Diagnosis

In the 2003-2007 time period, none of the pancreatic cancers were diagnosed at the in situ stage, 8 percent were diagnosed at the localized stage, 22 percent at regional stage, 48 percent at distant stage and 22 percent were of unknown stage of progression.



What are the common treatments?

Treatment options include: surgery, radiation therapy, and chemotherapy. Clinical trials offer improved survival and are an option.

What are the survival outcomes?

Using 1999-2007 SEER data, the national 5-year relative survival rate estimate is 5 percent. When diagnosed at localized stage, the 5-year relative survival rate is 16 percent. For regional and distant stages, the 5-year relative survival rates are 8 percent and 2 percent respectively. The survival rate when the stage of diagnosis could not be determined was estimated at 6 percent.

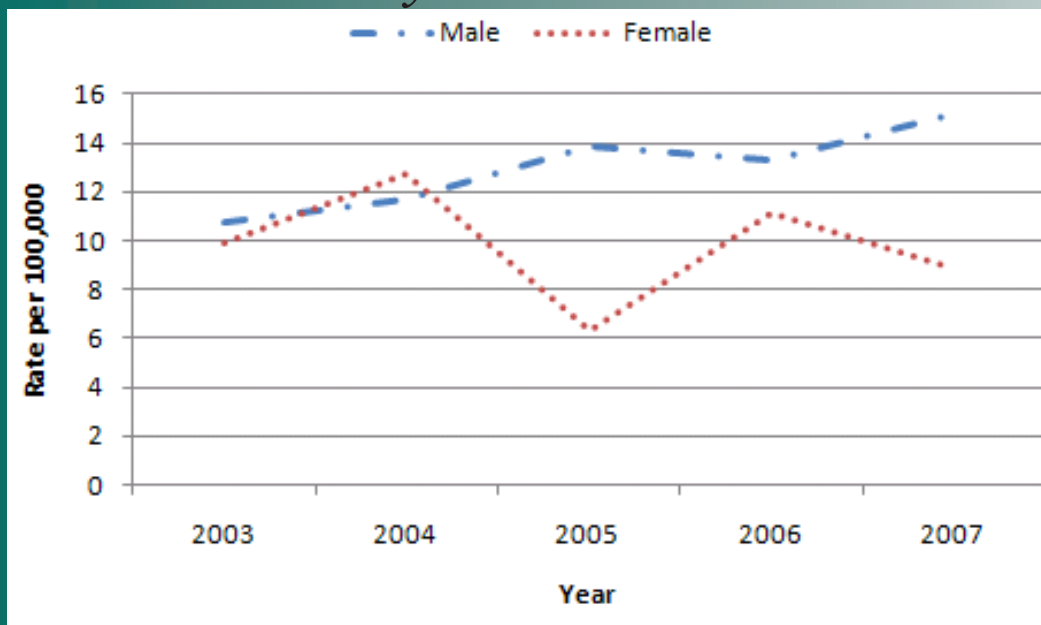
What can you tell me about this cancer in North Dakota?

Summary Statistics 2003-2007	ND	WNC	US
INCIDENCE			
Annual age-adjusted incidence rates*	11.3	11.0	11.6
Average number of new cases	83	2,354	35,597
Percent of all new cancers	2.49	2.35	2.47
MORTALITY			
Annual age-adjusted mortality rates*	10.6	10.5	10.7
Average number of deaths each year	79	2,271	32,576
Percent of all cancer deaths	6.06	5.74	5.83
* 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 83 new cases of pancreatic cancer are diagnosed each year in North Dakota, which is about 2 percent of all cancers diagnosed in the state.

☞ The incidence of pancreatic cancer is higher among men than women.

☞ The average annual incidence rate for men is 12.9 per 100,000 men, and the average annual incidence rate for women is 9.7 per 100,000 women.

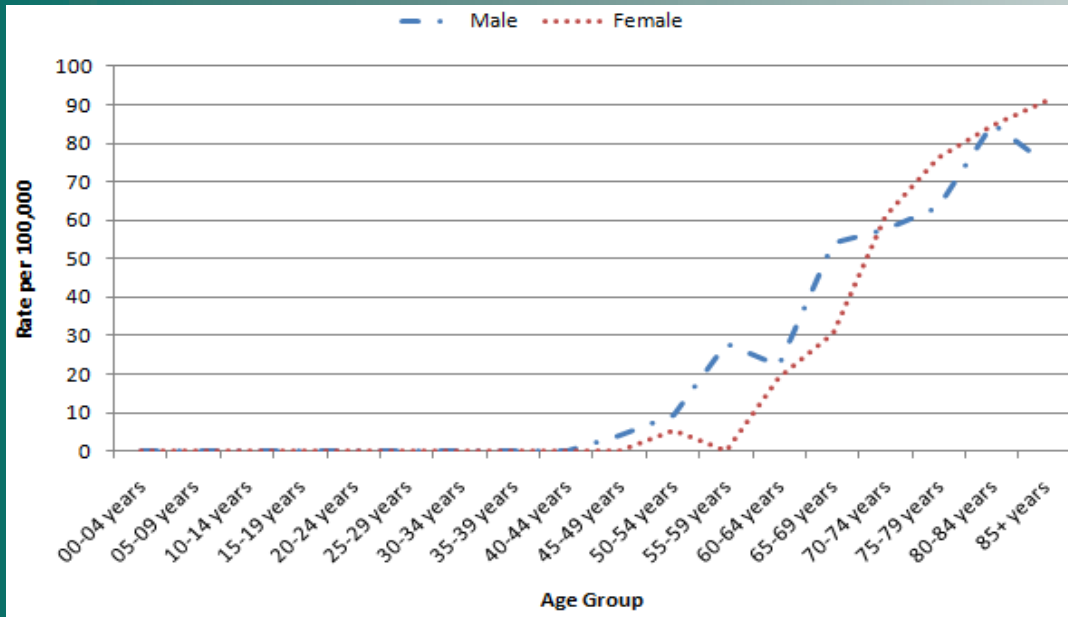
Age-Specific Incidence Rates, North Dakota 2003-2007



☞ Since the incidence is higher among men than women, the age-specific rates for men are higher.

☞ The annual incidence rate increases with age.

Age-Specific Mortality Rates, North Dakota 2003-2007



☞ An average of 79 deaths due to pancreatic cancer occur each year in North Dakota, which is about 6 percent of all cancer deaths in the state.

^ Statistic not displayed due to fewer than five cases.

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

