A Snapshot of Pancreatic Cancer

Incidence and Mortality Rate Trends

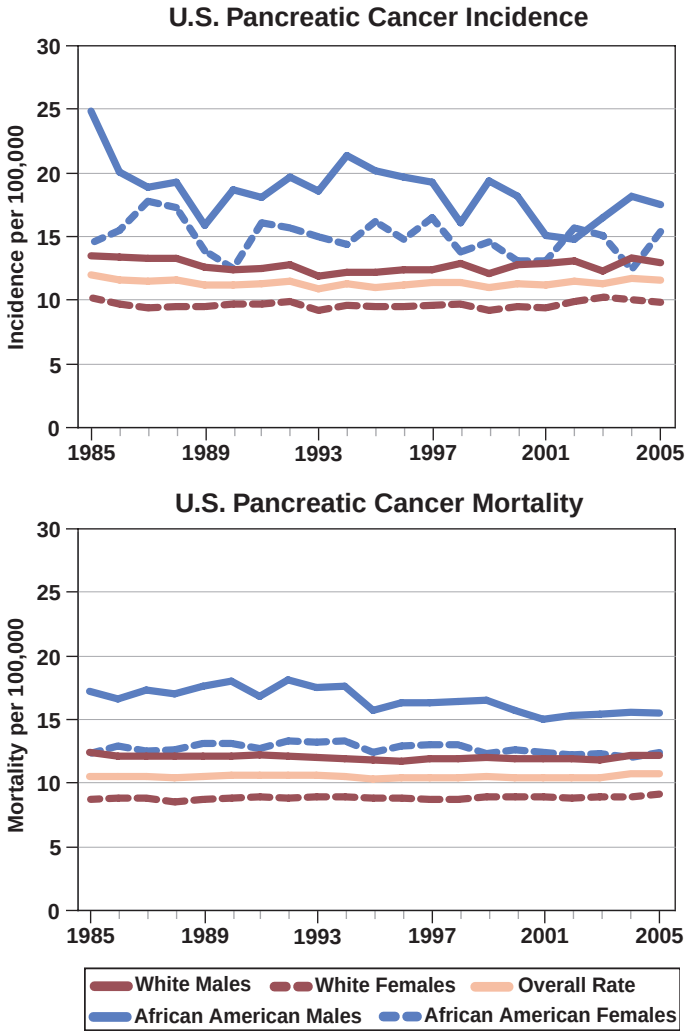
In the United States, pancreatic cancer is the fourth leading cause of cancer-related death in both men and women. Because it is usually diagnosed at an advanced stage, the survival rate is poor compared with that of other types of cancer. Unfortunately, overall pancreatic cancer incidence and mortality rates have changed very little throughout the past three decades.

African Americans have higher pancreatic cancer incidence and mortality rates than whites. Similarly, pancreatic cancer incidence and mortality rates are higher in men than in women.

It is estimated that approximately $1.5 billion[1] is spent in the United States each year on treatment of pancreatic cancer.

Source for incidence and mortality data: Surveillance, Epidemiology, and End Results (SEER) Program and the National Center for Health Statistics. Additional statistics and charts are available at http://seer.cancer.gov/.

[1]Cancer Trends Progress Report (http://progressreport.cancer.gov), in 2004 dollars, based on methods described in *Medical Care* 2002 Aug; 40 (8 Suppl): IV-104–17.

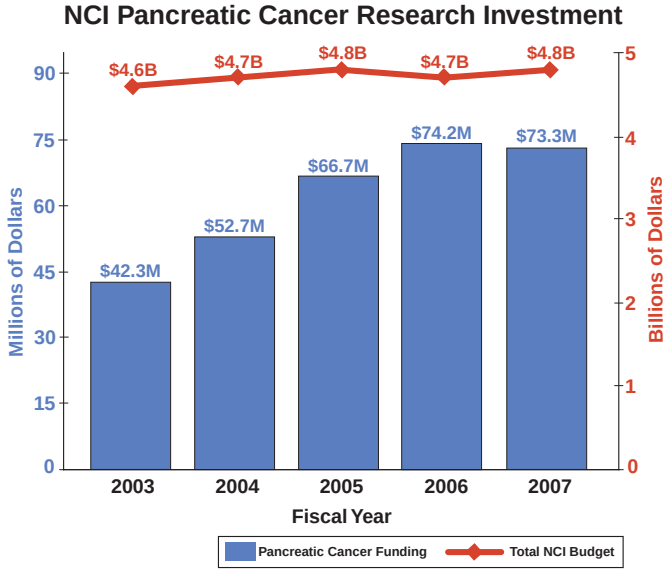


Trends in NCI Funding for Pancreatic Cancer Research

The National Cancer Institute's (NCI's) investment[2] in pancreatic cancer research increased from $42.3 million in fiscal year 2003 to $73.3 million in fiscal year 2007.

Source: NCI Office of Budget and Finance (http://obf.cancer.gov/).

[2]The estimated NCI investment is based on funding associated with a broad range of peer-reviewed scientific activities. For additional information on research planning and budgeting at the National Institutes of Health, see http://www.nih.gov/about/.

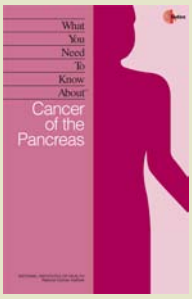


Developed by NCI's Office of Science Planning and Assessment (OSPA) with assistance from SAIC. Snapshots can be found online at: http://planning.cancer.gov/disease/snapshots.shtml.

Examples of NCI Activities Relevant to Pancreatic Cancer

- Three pancreatic cancer-specific **Specialized Programs of Research Excellence (SPOREs)** are moving results from the laboratory to the clinical setting. http://spores.nci.nih.gov/current/pancreas/pancreas.html
- The first in a series of state-of-the-science conferences sponsored by NCI's **Coordinating Center for Clinical Trials** and **Gastrointestinal Cancer Steering Committee** focused on ways to make progress against pancreatic cancer. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_120407/page6
- The **Pancreatic Cancer Research Map** allows the public to search a comprehensive list of investigators and research projects relevant to pancreatic cancer. http://www.cancermap.org/pancreatic/index.jsp
- **Cancer Nanotechnology Platform Partnerships** are developing technologies for new products in such areas as molecular imaging and early detection. One partnership is studying the use of nanoparticles in the diagnosis and therapy of pancreatic cancer. http://nano.cancer.gov/alliance_awards/fact/platforms.asp
- The **Tumor Glycome Laboratories** of the **National Institutes of Health Alliance of Glycobiologists for Detection of Cancer and Cancer Risk** are studying and validating cancer biomarkers, including biomarkers for pancreatic cancer. http://prevention.cancer.gov/programs-resources/groups/cb/programs/glycome
- The **Pancreatic Cancer Cohort Consortium** is a group of investigators who are scanning the genomes of patients with different types of pancreatic cancer to find markers that will identify people at risk for this disease. http://epi.grants.cancer.gov/PanScan/
- The **Pancreatic Cancer Home Page** provides up-to-date information on pancreatic cancer treatment, prevention, genetics, causes, screening, testing, and other topics. http://www.cancer.gov/pancreas

What You Need to Know About™ Cancer of the Pancreas



This booklet discusses possible causes, symptoms, diagnosis, treatment, and rehabilitation. It also has information to help patients cope with pancreatic cancer.

Risk factors for pancreatic cancer include: age, smoking, diabetes, being male, being African American, family history of pancreatic cancer, and chronic pancreatitis.

http://www.cancer.gov/cancertopics/wyntk/pancreas

Information specialists can also answer questions about cancer at 1-800-4-CANCER.

Selected Advances in Pancreatic Cancer Research

- Researchers profiled the activity of microRNAs, short biomolecules that regulate gene activity, to develop molecular signatures for pancreatic tumors. This information may help physicians diagnose and treat this disease. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_050107/page6
- A comprehensive, nationwide review found that nearly 4 in 10 patients with stage I pancreatic cancer who are candidates for surgery are not offered this option, even though it has a demonstrated survival benefit. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_062607/page4#b
- Investigators used a new imaging tool that operates on the nanoscale level to measure cell softness, which can be used to distinguish between normal cells and metastatic pancreatic cancer. http://nano.cancer.gov/news_center/2008/jan/nanotech_news_2008-01-30b.asp
- Researchers created a new imaging compound that selectively binds to certain cancer cells in mice and fluoresces, or glows, only when processed by these cells. This compound could be particularly useful for monitoring or treating pancreatic cancer. http://www.cancer.gov/newscenter/pressreleases/FluorescenceOvarian