

Incidence and Mortality Rate Trends

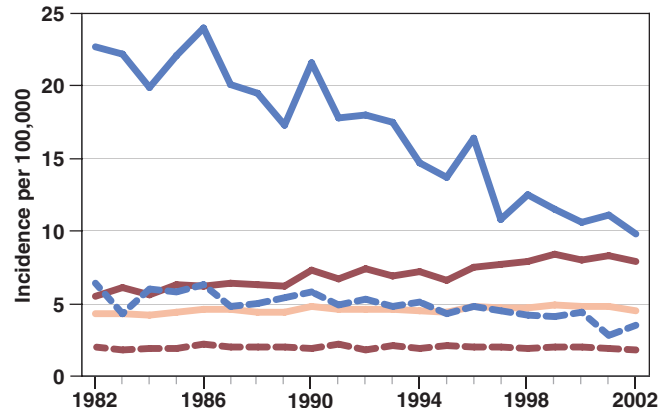
The mortality rates for esophageal cancer are very similar to the incidence rates in the United States. Regardless of racial/ethnic group, men have higher incidence rates than women. The esophageal cancer incidence and mortality rates for African Americans have been higher than the rates for Whites. The incidence and death rates for African Americans have steadily declined; however, this downward trend is not observed for other racial/ethnic groups.

It is estimated that approximately \$779 million* is spent in the United States each year on treatment of esophageal cancer.

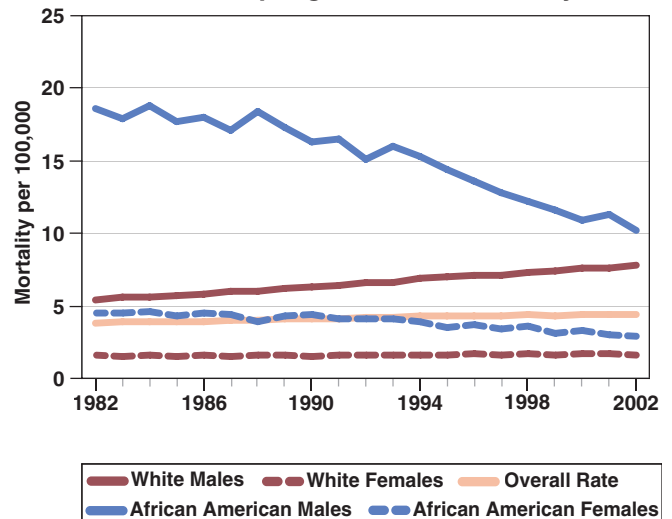
*In 2004 dollars, as reported in Brown ML, Riley GF, Schussler N, and Etzioni RD. Estimating health care costs related to cancer treatment from SEER-Medicare data. *Medical Care* 2002 Aug; 40 (8 Suppl): IV-104-17.

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

U.S. Esophageal Cancer Incidence



U.S. Esophageal Cancer Mortality

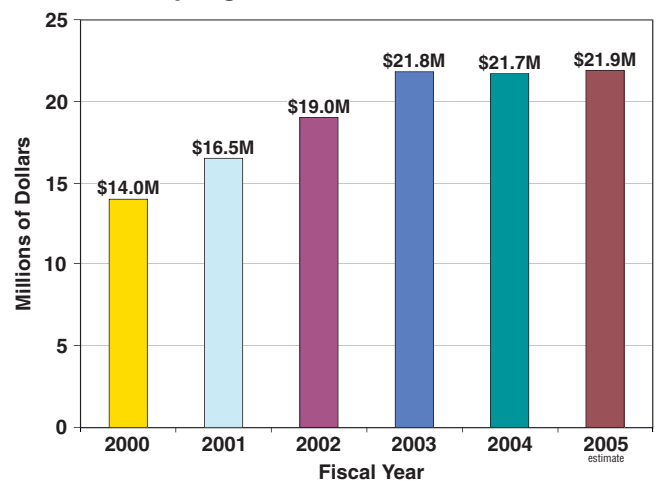


Trends in NCI Funding for Esophageal Cancer Research

The National Cancer Institute's (NCI's) investment in esophageal cancer research has increased from \$14.0 million in fiscal year 2000 to an estimated \$21.9 million in fiscal year 2005.

Source: NCI Financial Management Branch
<http://www3.cancer.gov/admin/fmb>

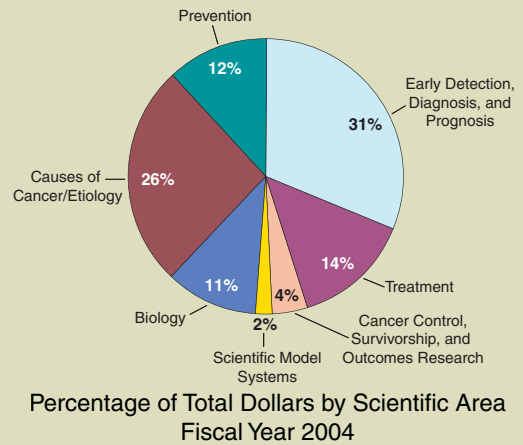
NCI Esophageal Cancer Research Investment



Examples of NCI Research Initiatives Relevant to Esophageal Cancer

- Four gastrointestinal cancer-specific **Specialized Programs of Research Excellence (SPOREs)** are moving results from the laboratory to the clinical setting. <http://spores.nci.nih.gov/current/gi/gi.html>
- **Clinical Trials** are actively recruiting esophageal cancer patients to test new treatments and treatment combinations. Additional trials are testing new approaches to prevention and diagnosis. http://www.cancer.gov/search/clinical_trials
- NCI's intramural **Gastrointestinal Malignancies Faculty** brings together basic, epidemiological, translational, and clinical research scientists from across NCI to facilitate interactions and to promote a community of investigators working together for the prevention, diagnosis, and cure of gastrointestinal cancers. <http://ccr.cancer.gov/faculties/faculty.asp?facid=156>
- The **Network for Translational Research: Optical Imaging (NTROI)** consists of interdisciplinary scientists who work together to accelerate the pace of translational research in optical imaging and/or spectroscopy in vivo. Current efforts include the development of methods to improve treatment monitoring of Barrett's esophagus, and the identification of molecular markers for the detection of esophageal neoplasia. <http://imaging.cancer.gov/programsandresources/specializedinitiatives/ntroi/print>

NCI Esophageal Cancer Research Portfolio



* Data on training grants are not included in this figure. A description of the relevant research projects can be found at the NCI Cancer Research Portfolio website at <http://researchportfolio.cancer.gov>.

- The **Stomach/Esophageal Cancers PRG**, a panel of prominent scientists and patient advocates, assessed the state of the science and identified future research priorities for stomach and esophageal cancers. <http://planning.cancer.gov/disease/prg.shtml>
- The **Esophageal Cancer Home Page** provides up-to-date information on esophageal cancer treatment, prevention, genetics, causes, screening, testing, and other topics. <http://cancer.gov/cancerinfo/types/esophageal>

Selected Opportunities for Advancement of Esophageal Cancer Research

- Establish collaborations for interdisciplinary, population-based, multi-institutional studies that use endoscopy to identify populations at greatest risk for esophageal cancer and to determine the prevalence and natural history of precancerous lesions.
- Develop strategies to prevent esophageal precancers and cancers that are caused at least in part by environmental exposures. Evaluate the effectiveness of these prevention strategies in at-risk populations.
- Characterize the molecular and cellular pathways in esophageal cancer cells and their microenvironment. Use this knowledge to develop and test novel therapeutics and optimize existing treatments for gastroesophageal cancers and precancerous conditions.
- Create profiles of the molecular, cellular, and epidemiologic features of gastroesophageal tumors and precancerous lesions to identify diagnostic, prognostic, predictive, preventive, and therapeutic targets.