A Snapshot of Colorectal Cancer

Incidence and Mortality Rate Trends

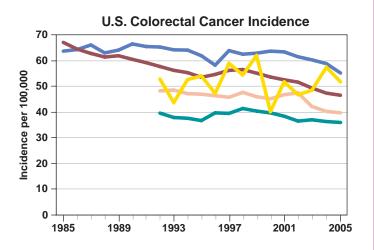
Colorectal cancer is the third most common cancer in both men and women and the third leading cause of cancer-related mortality in men and women in the United States. Over the past decade, colorectal cancer incidence and mortality rates have decreased in all populations, except that mortality rates have increased in American Indians and Alaskan Natives. Until age 50, men and women have similar incidence and mortality rates; after age 50, men are more vulnerable.

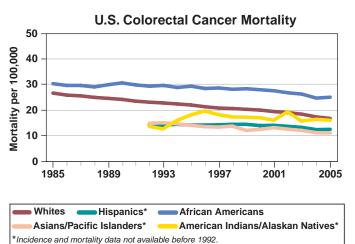
There are striking differences between racial and ethnic groups in both incidence and mortality. Mortality rates for Hispanics, Asians, Pacific Islanders, American Indians, and Alaskan Natives are lower than those for whites or African Americans.

It is estimated that approximately \$8.4 billion¹ is spent in the United States each year on treatment of colorectal 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/.

¹Cancer 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.



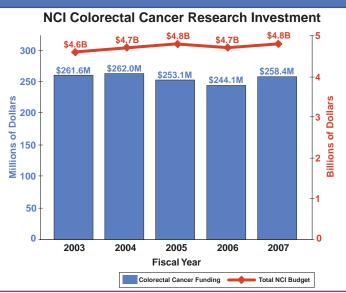


Trends in NCI Funding for Colorectal Cancer Research

The National Cancer Institute's (NCI's) investment² in colorectal cancer research decreased slightly from \$261.6 million in fiscal year 2003 to \$258.4 million in fiscal year 2007.

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

²The 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/.



Examples of NCI Activities Relevant to Colorectal Cancer

- Five 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
- NCI's Colorectal Cancer Mortality Projections website provides data on the impact of risk factor reduction, increased early detection, and increased access to optimal treatment on future colorectal cancer mortality rates. http://cisnet. cancer.gov/projections/colorectal/
- NCI's Transdisciplinary Research on Energetics and Cancer (TREC) centers are collaborating to reduce cancer incidence, morbidity, and mortality associated with obesity, low levels of physical activity, and poor diet. Two of the four TREC centers focus on colorectal cancer. http:// cancercontrol.cancer.gov/TREC/
- The Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial (PLCO), a large-scale clinical trial, is determining whether specific cancer-screening tests reduce deaths from these cancers. http://dcp.cancer.gov/programs-resources/ groups/ed/programs/plco
- The Colon Cancer Family Registry is an international infrastructure of investigators conducting population and clinically based interdisciplinary studies on the genetic and molecular epidemiology of colon cancer and its behavioral implications. http://epi.grants.cancer. gov/CFR/about_colon.html
- The Cancer and Inflammation Program is conducting research that combines NCI's expertise in inflammation and immunology with its cutting-

What You Need to Know About™ Cancer of the Colon and Rectum



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

Risk factors for colorectal cancer include: age over 50, colorectal polyps, family history of colorectal cancer, genetic alterations, personal

history of cancer, ulcerative colitis or Crohn's disease, diet, and cigarette smoking.

http://www.cancer.gov/cancertopics/wyntk/colon-and-rectal

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

edge cancer etiology and carcinogenesis program. One study in the program is focusing on the role of various inflammation-related gene products in colon carcinogenesis. http://ccr.cancer.gov/labs/lab.asp?labid=790

- The Centers for Excellence in Cancer Communication Research support interdisciplinary research on cancer communications, including studies on how patients, cancer survivors, and the public seek information on colon cancer and on the development of tailored messages promoting fruit and vegetable intake among African Americans. http://cancercontrol.cancer.gov/hcirb/ceccr/
- The Colon and Rectal Cancer Home Page provides up-to-date information on colorectal cancer treatment, prevention, genetics, causes, screening, testing, and other topics. http://www.cancer.gov/ cancerinfo/types/colon-and-rectal

Selected Advances in Colorectal Cancer Research

- An international research team identified a link between the expression patterns of microRNAs, a class of biomolecules, and the progression of colon cancer. http://www.cancer.gov/newscenter/ pressreleases/ColonMicroRNAHarris
- Several single nucleotide polymorphisms (SNPs), or changes in a single subunit of DNA, on chromosome 8 (8q24) can significantly increase a person's risk of colon cancer. http://www.cancer. gov/ncicancerbulletin/NCI_Cancer_Bulletin_071007/ page4
- The fecal immunochemical test, a new fecal occult blood test, has shown promising results for detecting colorectal cancers. http://www.cancer. gov/ncicancerbulletin/NCI_Cancer_Bulletin_092507/ page4#c
- High levels of circulating vitamin D are associated with a lower risk of death from colorectal cancer. http://www.cancer.gov/ncicancerbulletin/ NCI_Cancer_Bulletin_110607/page4