

# Colorectal Cancer

## Incidence and Mortality Rate Trends

Colorectal cancer is the third most common cancer and the third leading cause of cancer-related mortality in both men and women in the United States. Over the past decade, colorectal cancer incidence and mortality rates have decreased in all populations. Until age 50, men and women have similar incidence and mortality rates; after age 50, rates are higher in men.

Differences exist between racial and ethnic groups in both incidence and mortality. Mortality rates for Hispanics, Asians/Pacific Islanders, and American Indians/Alaska Natives are lower than those for whites or African Americans.

It is estimated that approximately \$12.2 billion<sup>1</sup> is spent in the United States each year on colorectal cancer treatment.

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/>.

<sup>1</sup> Cancer Trends Progress Report (<http://progressreport.cancer.gov/>), in 2006 dollars.

## Trends in NCI Funding for Colorectal Cancer Research

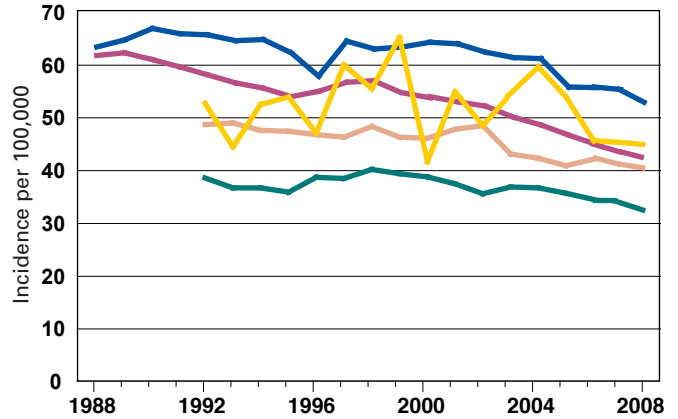
The National Cancer Institute's (NCI) investment<sup>2</sup> in colorectal cancer research increased from \$244.1 million in fiscal year (FY) 2006 to \$270.4 million in FY 2010. In addition, NCI supported \$58.6 million in colorectal cancer research in FY 2009 and 2010 using funding from the American Recovery and Reinvestment Act (ARRA).<sup>3</sup>

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

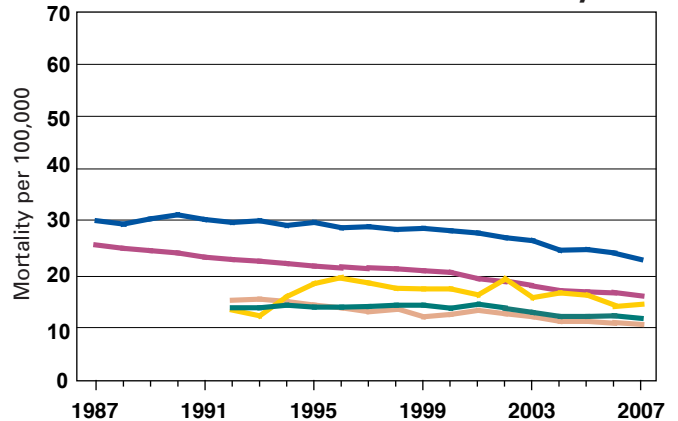
<sup>2</sup> The estimated NCI investment is based on funding associated with a broad range of peer-reviewed scientific activities. For additional information on research planning and budgeting at the National Institutes of Health (NIH), see <http://www.nih.gov/about/>.

<sup>3</sup> For more information regarding ARRA funding at NCI, see <http://www.cancer.gov/aboutnci/recovery/recoveryfunding>.

U.S. Colorectal Cancer Incidence



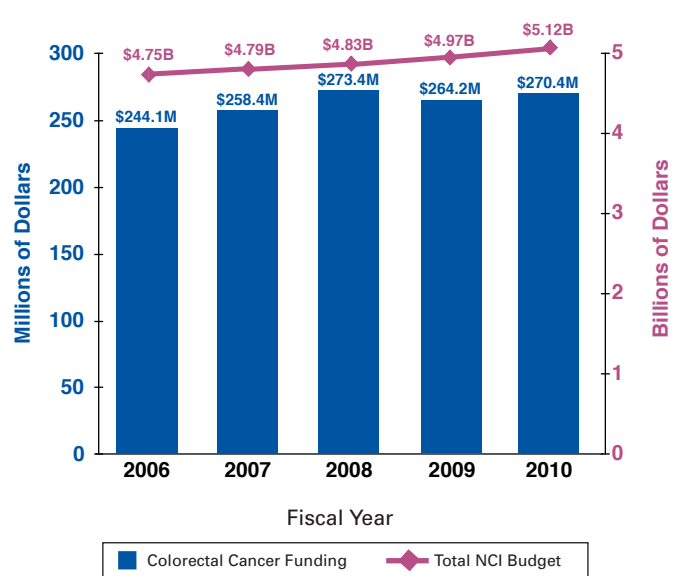
U.S. Colorectal Cancer Mortality



Whites    Hispanics\*    African Americans  
Asians/Pacific Islanders\*    American Indians/Alaska Natives\*

\* Incidence and mortality data not available before 1992.

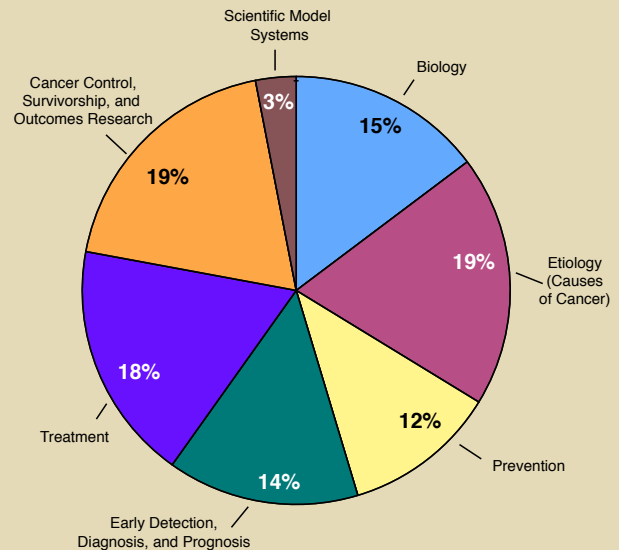
NCI Colorectal Cancer Research Investment



## Examples of NCI Activities Relevant to Colorectal Cancer

- NCI's **Transdisciplinary Research on Energetics and Cancer** initiative supports studies on the biology, genomics, and genetics of energy balance, as well as behavioral, sociocultural, and environmental influences on cancer risk, with two centers focused 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, including flexible sigmoidoscopy for colorectal cancer screening. <http://prevention.cancer.gov/plco>
- The **Colorectal Cancer Risk Assessment Tool** helps health professionals assess a person's risk of developing colorectal cancer. <http://www.cancer.gov/colorectalcancerrisk/>
- NCI supports three **Colorectal Cancer Epidemiology Consortia**—the Colon Cancer Family Registry, the Colorectal Cancer Genome-Wide Association Studies Consortium, and the Molecular Biology of Colorectal Cancer Consortium. <http://epi.grants.cancer.gov/Consortia/tables/colorectal.html>
- NCI's **Population-Based Research Optimizing Screening through Personalized Regimens (PROSPR)** program supports multisite, coordinated transdisciplinary research on colorectal cancer screening to better understand how to improve the screening process (i.e., recruitment, screening, diagnosis, referral for treatment). <http://appliedresearch.cancer.gov/funding/prospr/>
- Six gastrointestinal-cancer-specific **Specialized Programs of Research Excellence (SPOREs)**, two focused on colorectal cancer, are moving results from the laboratory to the clinical setting. <http://trp.cancer.gov/spores/gi.htm>

## NCI Colorectal Cancer Research Portfolio



Percentage of Total Dollars by Scientific Area  
Fiscal Year 2010

Data source: The NCI Funded Research Portfolio. Only projects with assigned scientific area codes are included. A description of relevant research projects can be found on the NCI Funded Research Portfolio Web site at <http://fundedresearch.cancer.gov>

- The **What You Need to Know About™ Cancer of the Colon and Rectum** booklet provides information on possible risk factors, screening, symptoms, diagnosis, and treatment. Information specialists can also answer questions about cancer at 1-800-4-CANCER. <http://www.cancer.gov/cancertopics/wyntk/colon-and-rectal>
- The **NCI Colon and Rectal Cancer Home Page** provides up-to-date information on colorectal cancer treatment, prevention, genetics, causes, screening, testing, and other related topics. <http://www.cancer.gov/cancertopics/types/colon-and-rectal>

## Selected Advances in Colorectal Cancer Research

- Microsimulation models have determined that **computed tomographic colonography (CTC) screening** could be a cost-effective option for colorectal cancer screening among Medicare enrollees if the test costs were substantially less than those for colonoscopy or if a large proportion of people were screened who wouldn't have been otherwise. <http://www.ncbi.nlm.nih.gov/pubmed/20664028>
- Researchers have found that the association between increased risk of colorectal cancer and **intake of red and processed meats** may be related to heme iron, nitrate, nitrite, and heterocyclic amines. <http://www.ncbi.nlm.nih.gov/pubmed/20215514>
- Results of a population-based study suggest that postmenopausal women who use **bisphosphonate drugs may have a lower colorectal cancer risk**. <http://www.cancer.gov/ncicancerbulletin/022211/page3#b>
- Almost **one-quarter of Medicare beneficiaries may be undergoing colonoscopy screening more frequently than recommended**, including a large number of patients 80 years of age or older, among whom the risks associated with the procedure often outweigh the benefits. <http://www.cancer.gov/ncicancerbulletin/051711/page3> and <http://www.ncbi.nlm.nih.gov/pubmed/21555653>