

## Incidence and Mortality Rate Trends

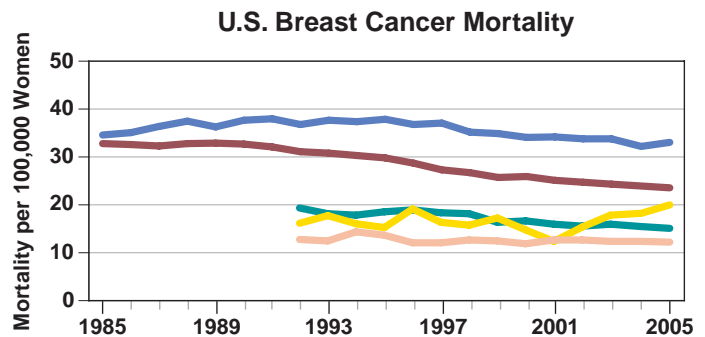
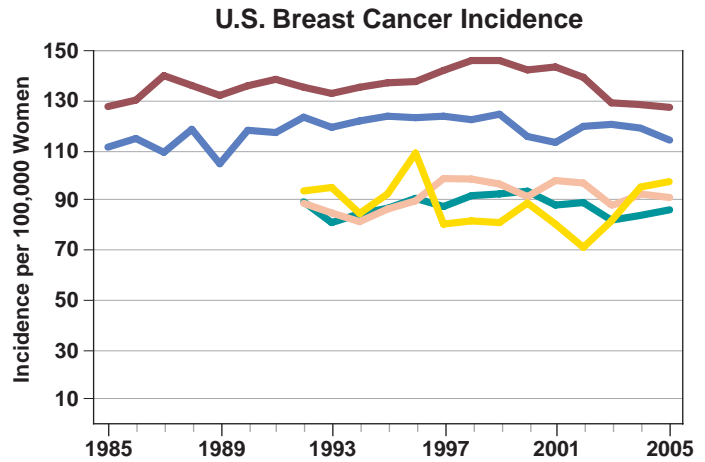
In the United States, breast cancer is the most common non-skin cancer and the second leading cause of cancer-related death in women. Each year, a small number of men are also diagnosed with or die from breast cancer. Although the breast cancer diagnosis rate has increased since the early 1990s, the overall breast cancer death rate has dropped steadily.

The incidence of breast cancer is highest in whites, but African Americans have higher mortality rates than any other racial or ethnic group in the United States. The gap in mortality between African Americans and whites is wider now than it was in the early 1990s.

It is estimated that approximately \$8.1 billion<sup>1</sup> is spent in the United States each year on treatment of breast 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/>.

<sup>1</sup>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.



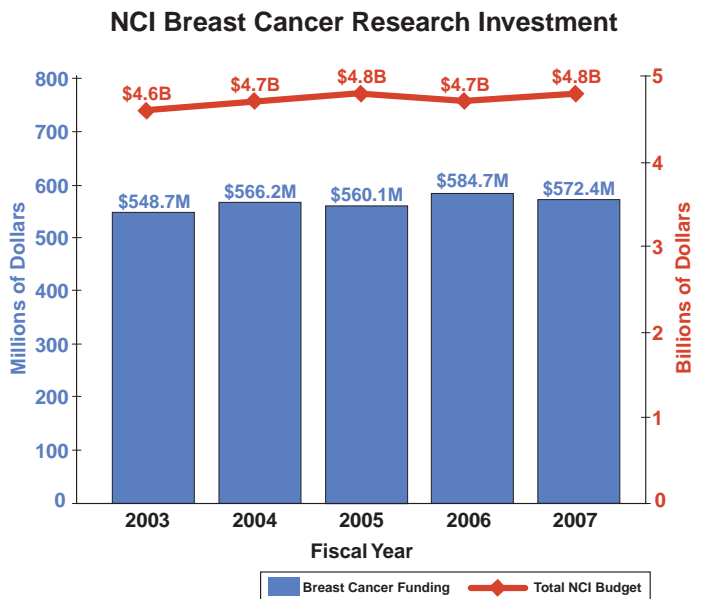
Whites    Hispanics\*    African Americans  
Asians/Pacific Islanders\*    American Indians/Alaskan Natives\*  
\*Incidence and mortality data not available before 1992.

## Trends in NCI Funding for Breast Cancer Research

The National Cancer Institute's (NCI's) investment<sup>2</sup> in breast cancer research increased from \$548.7 million in fiscal year 2003 to \$572.4 million in fiscal year 2007.

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

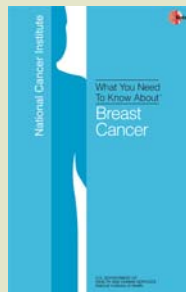
<sup>2</sup>The estimated NCI investment is based on funding associated with a broad range of peer-reviewed scientific activities. For additional information on research planning and budgeting at the National Institutes of Health, see <http://www.nih.gov/about/>.



## Examples of NCI Activities Relevant to Breast Cancer

- Eleven breast cancer-specific **Specialized Programs of Research Excellence (SPOREs)** are moving results from the laboratory to the clinical setting. <http://spores.nci.nih.gov/current/breast/breast.html>
- The **Trial Assigning Individualized Options for Treatment (Rx), or TAILORx**, is determining whether genes associated with a risk of recurrence in women with early-stage breast cancer can be used to identify the most appropriate and effective treatments for these women. <http://www.cancer.gov/newscenter/pressreleases/TAILORxRelease>
- **Cancer Genetic Markers of Susceptibility (CGEMS)** is identifying genetic alterations that make people susceptible to prostate and breast cancer. Scientists are using DNA from five large studies of prostate cancer and five large studies of breast cancer to scan the genome for common genetic differences between patients who have these cancers and those who do not have cancer. <http://cgems.cancer.gov/index.asp>
- The **Breast Premalignancy Program** supports multidisciplinary efforts to characterize the genetic, molecular, and/or cellular changes in human breast cancer premalignancy. [http://www.cancer.gov/ncicancerbulletin/NCI\\_Cancer\\_Bulletin\\_020706/page9](http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_020706/page9)
- The **Breast and Gynecologic Malignancies Faculty** facilitates interactions among basic, epidemiological, and clinical researchers to promote a community of investigators who work

## What You Need to Know About™ Breast Cancer



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

Risk factors for breast cancer include: age, personal history of breast cancer, family history of breast cancer, certain breast changes, gene changes, reproductive and menstrual history, race, radiation therapy to the chest, breast density, taking DES (diethylstilbestrol), above-normal weight or obesity after menopause, lack of physical activity, and alcohol consumption. <http://www.cancer.gov/cancertopics/wyntk/breast>  
Information specialists can also answer questions about cancer at 1-800-4-CANCER.

together for the prevention, diagnosis, and cure of breast cancer. <http://ccr.cancer.gov/faculties/faculty.asp?facid=129>

- The **Adjuvant Lapatinib and/or Trastuzumab Treatment Optimisation (ALTO) study** is comparing the effectiveness of two molecular targeted therapies, lapatinib (Tykerb®) and trastuzumab (Herceptin®). The trial is also assessing the effectiveness of a combination of these drugs on early-stage breast cancer that is positive for the HER2 protein. [http://www.cancer.gov/ncicancerbulletin/NCI\\_Cancer\\_Bulletin\\_030408/page2](http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_030408/page2)
- The **Breast Cancer Home Page** directs visitors to up-to-date information on breast cancer treatment, prevention, genetics, causes, screening, testing, and other topics. <http://www.cancer.gov/breast>

## Selected Advances in Breast Cancer Research

- A recent study showed that magnetic resonance imaging (MRI) can identify cancers in the opposite breast in women with newly diagnosed breast cancer that might otherwise be missed by standard mammography and clinical breast exams. [http://www.cancer.gov/ncicancerbulletin/NCI\\_Cancer\\_Bulletin\\_040307/page2](http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_040307/page2)
- The U.S. Food and Drug Administration (FDA) has approved raloxifene (Evista®) to reduce the risk of invasive breast cancer in postmenopausal women at high risk of the disease and those with osteoporosis. [http://www.cancer.gov/ncicancerbulletin/NCI\\_Cancer\\_Bulletin\\_092507/page5](http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_092507/page5)
- Vaccinating breast cancer-infected mice with a modified form of a virus containing proteins from breast cancer cells can kill large breast cancer tumors. <http://www.cancer.gov/newscenter/pressreleases/BreastVaccineBerzovsky>
- A new computational model more accurately estimates the risk of invasive breast cancer in African American women. [http://www.cancer.gov/ncicancerbulletin/NCI\\_Cancer\\_Bulletin\\_120407/page2](http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_120407/page2)