

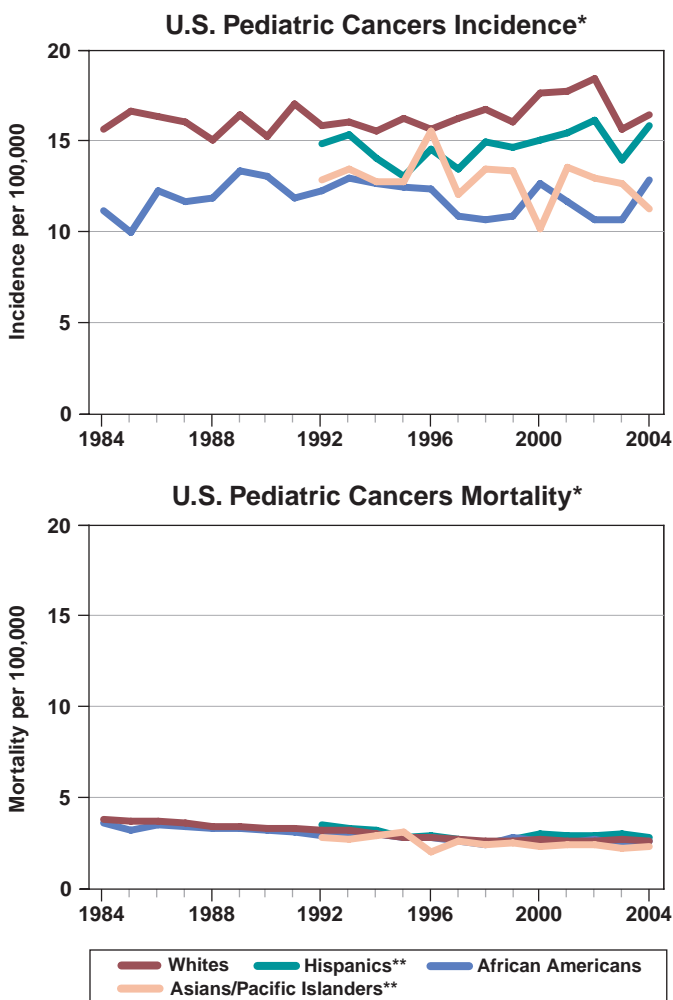
Incidence and Mortality Rate Trends

Between infancy and 15 years of age, cancer is the leading cause of death by disease among U.S. children. Approximately 10,400 new cases of pediatric cancer are expected to be diagnosed in children ages 0–14 years in 2007. Among the major types of childhood cancers, leukemias (blood cell cancers) and brain and other central nervous system (CNS) tumors account for over half of new cases. White children are more likely to develop cancer than any other ethnic group.

Although the incidence of invasive cancer in children has increased slightly over the past 30 years, mortality has declined dramatically for many childhood cancers.¹ The combined 5-year survival rate for all childhood cancers has improved from less than 50 percent before the 1970s to nearly 80 percent today, and the 10-year survival rate is over 75 percent.

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/>.

¹Incidence and mortality data reflect cancers in children 0–18 years of age.



*Significant data for American Indians/Alaskan Natives not available.

**Data for Hispanics and Asians/Pacific Islanders not available before 1992.

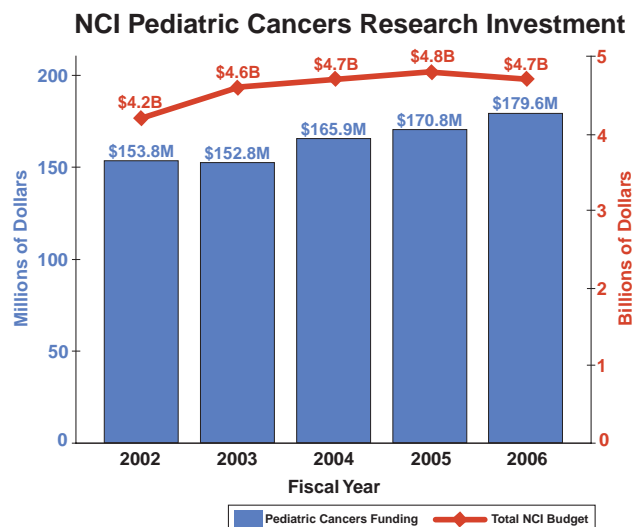
Trends in NCI Funding for Pediatric Cancers² Research

The National Cancer Institute's (NCI's) investment³ in pediatric cancers research has increased from \$153.8 million in fiscal year 2002 to \$179.6 million in fiscal year 2006.

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

²Includes cancers in children 0–18 years of age. Does not include research on pediatric AIDS, infant mortality, science enrichment, or anti-smoking.

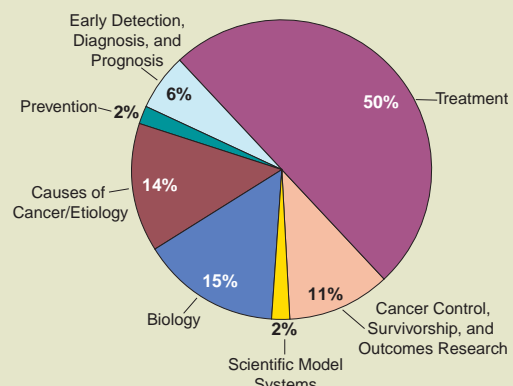
³The estimated NCI investment is based on funding associated with a broad range of peer-reviewed scientific activities. For additional information on research planning and budgeting at NIH, see <http://www.nih.gov/about/>.



Examples of NCI Research Initiatives Relevant to Pediatric Cancers

- The **Children's Oncology Group (COG)** is an NCI-supported clinical trials cooperative group devoted exclusively to childhood and adolescent cancer research. <http://www.childrensoncologygroup.org>
- The **Pediatric Brain Tumor Consortium (PBTC)**, a multidisciplinary cooperative research organization, is devoted to the identification of superior treatment strategies for children with primary brain tumors. <http://www.pbtc.org>
- NCI's **Strategic Partnering to Evaluate Cancer Signatures (SPECS)** program explores how information from molecular studies can be used to improve the care of cancer patients and ultimately improve outcomes. Two of the six SPECS projects focus on childhood cancers. <http://cancerdiagnosis.nci.nih.gov/specs/index.htm>
- The **Childhood Cancer Survivor Study (CCSS)** addresses the long-term effects of cancer and cancer therapy in over 20,000 survivors of childhood cancer and approximately 4,000 siblings of survivors. <http://www.stjude.org/ltfu>
- The **Childhood Cancer Therapeutically Applicable Research to Generate Effective Treatments (TARGET)** initiative is identifying and validating treatment targets to develop new, more effective treatments for pediatric cancers. http://www.nci.nih.gov/ncicancerbulletin/NCI_Cancer_Bulletin_112106/page3

NCI Pediatric Cancers Research Portfolio



Percentage of Total Dollars by Scientific Area
Fiscal Year 2006

Data sources: NCI's Division of Extramural Activities and NCI's Intramural Divisions. Data on training grants are not included. A description of the relevant research projects can be found at the NCI Cancer Research Portfolio website at <http://researchportfolio.cancer.gov>.

- The **Pediatric Preclinical Testing Program (PPTP)** identifies new, more effective agents for treating childhood cancers. <http://ctep.cancer.gov/resources/child.html>
- The **New Approaches to Neuroblastoma Therapy Consortium (NANT)** includes universities and children's hospitals that are developing and testing promising new treatments for high-risk neuroblastoma. <http://www.nant.org>
- The **Childhood Cancers Home Page** directs visitors to up-to-date information on childhood cancer treatment, genetics, causes, and other topics. <http://www.cancer.gov/cancertopics/types/childhoodcancers>

Selected Advances in Pediatric Cancers Research

- A pediatric medulloblastoma clinical trial showed that higher doses of radiation therapy for children with high-risk disease and high doses of chemotherapy for all patients improved survival compared to standard regimens. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_091206/page4
- Babies of women who received radiation therapy for childhood cancer are more likely to be born prematurely and have low birthweight. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_102406/page4
- The CCSS found that childhood cancer survivors who were treated with high-dose cranial radiotherapy have an increased risk of stroke. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_111406/page4
- Cord blood from unrelated donors is as effective, and possibly more so, as bone marrow transplants in preventing relapse in children with acute leukemia. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_062607/page4