National Cancer Institute

A Snapshot of

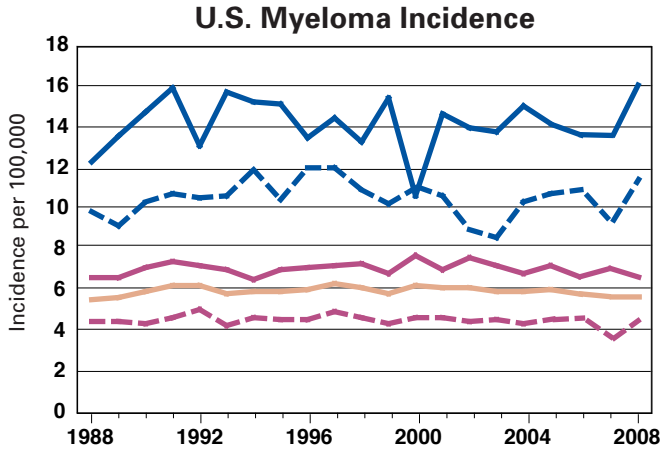
Myeloma

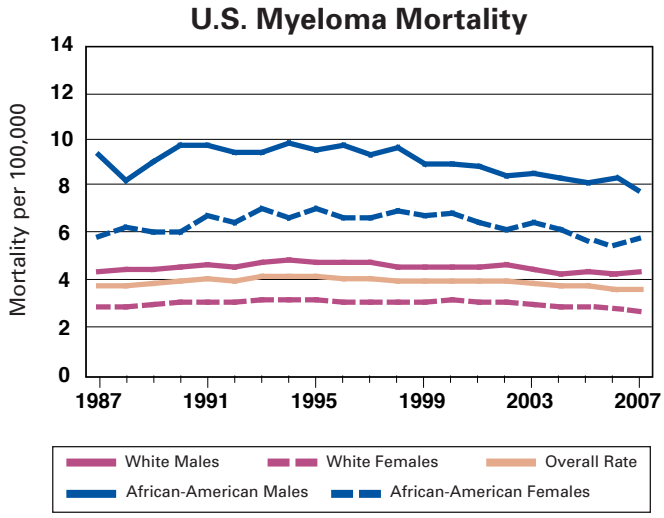
Incidence and Mortality Rate Trends

Myeloma, also known as multiple myeloma or plasma cell myeloma, is the second most common blood cancer in the United States and constitutes approximately 1 percent of all cancers. Over the past two decades, the overall incidence and mortality rates of myeloma have remained fairly stable.

Men have a higher incidence of myeloma than women. In addition, myeloma is more common among the elderly, and African Americans have approximately twice the incidence and mortality rates as whites.

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/.





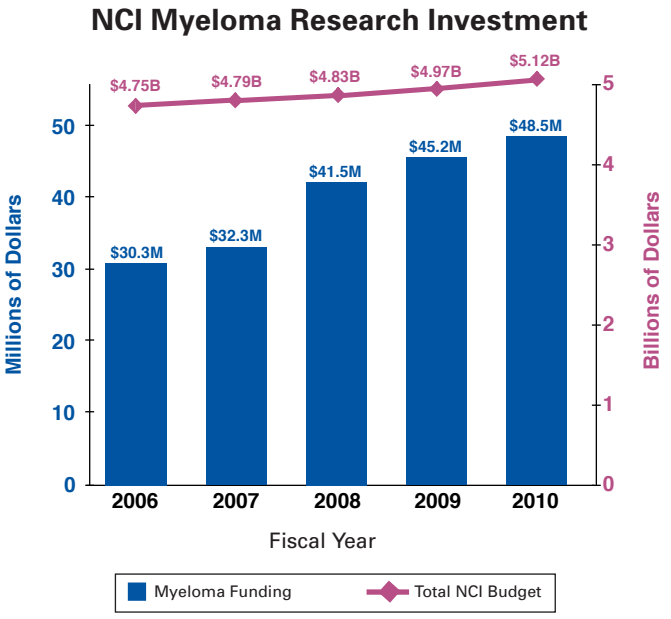
Trends in NCI Funding for Myeloma

The National Cancer Institute's (NCI) investment[1] in myeloma research increased from $30.3 million in fiscal year (FY) 2006 to $48.5 million in FY 2010. In addition, NCI supported $5.6 million in myeloma research in FY 2009 and 2010 using funding from the American Recovery and Reinvestment Act (ARRA).[2]

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

[1] 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/.

[2] For more information regarding ARRA funding at NCI, see http://www.cancer.gov/aboutnci/recovery/recoveryfunding.



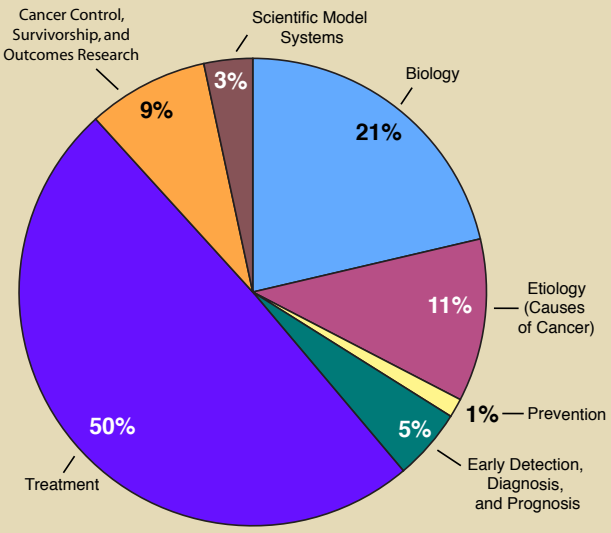
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Examples of NCI Activities Relevant to Myeloma

- The **Blood and Marrow Clinical Trials Network** conducts large multi-institutional trials that address important issues in hematopoietic stem cell transplantation to further understanding of the best treatment strategies. http://ctep.cancer.gov/MajorInitiatives/Collaboration_with_NHLBI.htm and https://web.emmes.com/study/bmt2/
- The **Mouse Models of Human Cancers Consortium (MMHCC)** has developed several myeloma models that are available to the research community. http://emice.nci.nih.gov/
- A myeloma study is under way as part of the **Patterns of Care/Quality of Care (POC/QOC) Program**, an initiative aimed at evaluating and improving the dissemination of recommended treatments. http://healthservices.cancer.gov/surveys/poc/
- The **Cancer Biomedical Informatics Grid® (caBIG®)** enables researchers and physicians to share cancer-related data and knowledge. This information network aims to accelerate discovery of new approaches for detection, diagnosis, treatment, and prevention of cancer. https://cabig.nci.nih.gov/overview/
- NCI funds **Supportive and Palliative Care Clinical Trials**, which explore ways to manage physical, mental, and emotional side effects of cancer and cancer therapies, including those experienced by patients undergoing treatment for myeloma. http://prevention.cancer.gov/clinicaltrials/supportivecare
- Two myeloma-specific **Specialized Programs of Research Excellence (SPOREs)** are moving results from the laboratory to the clinical setting. The programs are studying novel myeloma therapies and identifying new markers of this disease. http://trp.cancer.gov/spores/myeloma.htm

NCI Myeloma 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™ Multiple Myeloma** booklet includes information about myeloma diagnosis, treatment, and supportive care. Information specialists can also answer questions about cancer at 1-800-4-CANCER. http://www.cancer.gov/cancertopics/wyntk/myeloma
- The **NCI Multiple Myeloma/Other Plasma Cell Neoplasms Home Page** directs visitors to up-to-date information on myeloma treatment, prevention, genetics, causes, and other related topics. http://www.cancer.gov/cancertopics/types/myeloma

Selected Advances in Myeloma Research

- Researchers have determined that **increasing age, obesity, and African American race are independently associated with increased risk** for developing a multiple myeloma precursor disease. http://www.cancer.gov/newscenter/pressreleases/2010/MGUSrisk and http://www.ncbi.nlm.nih.gov/pubmed/20421448
- Preclinical testing indicates that an experimental agent that inhibits a **protein that is overabundant in multiple myeloma cells** has antitumor activity against multiple myeloma. http://www.ncbi.nlm.nih.gov/pubmed/20382844
- A deeper understanding of **myeloma precursor diseases and how they progress to cancer** may lead to more personalized management and earlier detection of multiple myeloma. http://home.ccr.cancer.gov/inthejournals/landgren.asp and http://www.ncbi.nlm.nih.gov/pubmed/21119086
- A small study has shown that a drug called 5-azacytidine may help multiple myeloma **patients who relapse after bone marrow transplantation**. http://www.ncbi.nlm.nih.gov/pubmed/20951817