

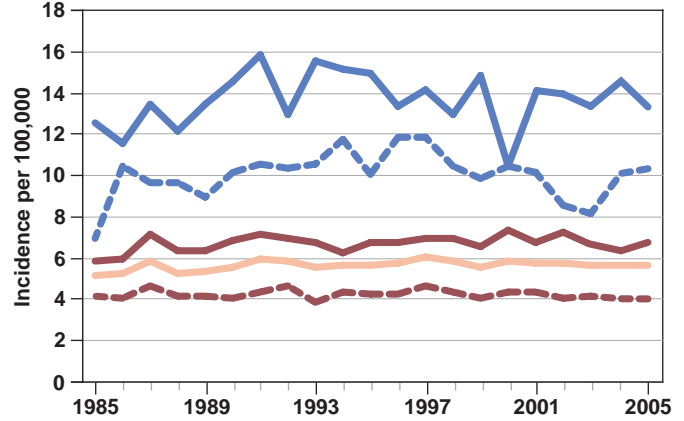
## Incidence and Mortality Rate Trends

Myeloma, also known as multiple myeloma or plasma cell myeloma, is the second most common blood cancer in the United States and comprises approximately 1 percent of all cancers. Unfortunately, the overall incidence rate of myeloma has increased slightly over the past two decades. During this period, the mortality rate has been stable.

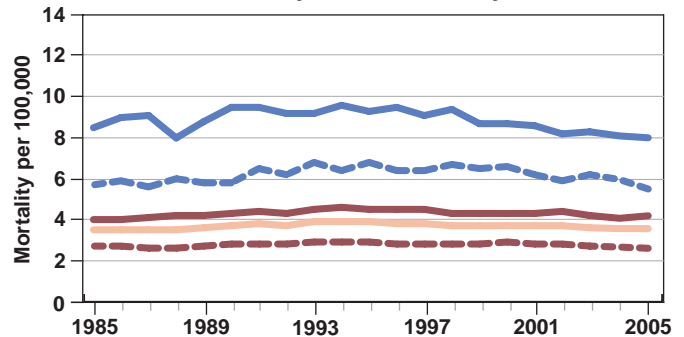
The incidence rate is higher in men than in women. Myeloma is more common among the elderly, and African Americans have approximately twice the incidence and mortality rates of whites.

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/>.

U.S. Myeloma Incidence



U.S. Myeloma Mortality



White Males White Females Overall Rate  
African American Males African American Females

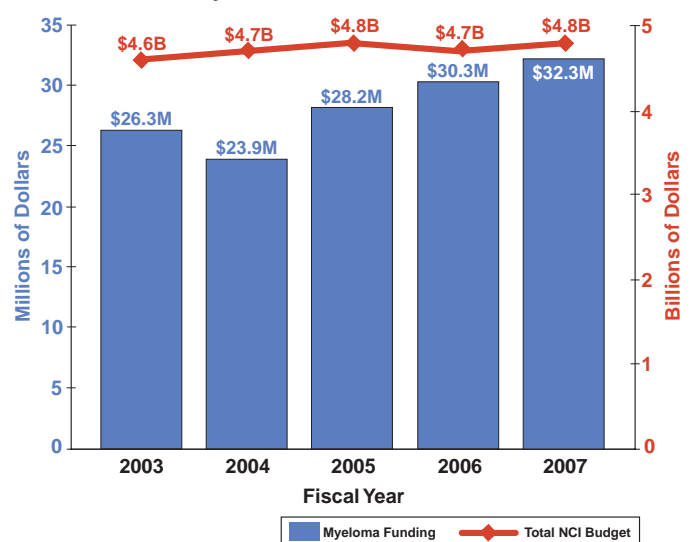
## Trends in NCI Funding for Myeloma Research

The National Cancer Institute's (NCI's) investment<sup>1</sup> in myeloma research increased from \$26.3 million in fiscal year 2003 to \$32.3 million in fiscal year 2007.

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

<sup>1</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/>.

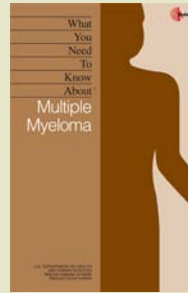
NCI Myeloma Research Investment



## Examples of NCI Activities Relevant to Myeloma

- The myeloma-specific **Specialized Program of Research Excellence (SPORE)** is moving results from the laboratory to the clinical setting. This program is studying novel myeloma therapies and identifying new markers of this disease. <http://spores.nci.nih.gov/current/myeloma/myeloma.html>
- The **Studies of Energy Balance and Cancer in Humans** support research to define the factors that affect energy balance and define mechanisms that influence cancer risk, prognosis, and quality of life. This program currently supports one study on myeloma. <http://grants.nih.gov/grants/guide/pa-files/PA-07-176.html>
- The **Multiple Myeloma Prevention Study** is evaluating the use of nonsteroidal anti-inflammatory drugs (NSAIDs) to modulate biomarkers associated with monoclonal gammopathy of undetermined significance (MGUS), a condition that sometimes precedes the development of myeloma. <http://www.cancer.gov/search/ViewClinicalTrials.aspx?cdrid=393514&version=patient&protocolsearchid=3439506>
- The **Quick-Trials for Novel Cancer Therapies and Prevention: Exploratory Grants** program expedites clinical translation of basic research discoveries in cancer biology through the development of novel anti-cancer drugs, diagnostic tools, treatments, and prevention strategies. This program currently supports two projects focused on immunotherapy and on improving the effectiveness of stem cell transplants in myeloma patients. <http://grants.nih.gov/grants/guide/pa-files/PA-08-025.html>

## What You Need to Know About™ Multiple Myeloma



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

Risk factors for myeloma include age, race, and personal history of MGUS.

<http://www.cancer.gov/cancertopics/wyntk/myeloma>

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

- A myeloma study is under way as part of the **Patterns of Care/Quality of Care Program (POC/QOC)**, an initiative aimed at evaluating and improving the dissemination of recommended treatments. <http://healthservices.cancer.gov/surveys/poc/>
- The **Mouse Models of Human Cancers Consortium** has developed several models to study hematologic malignancies and has made these models available to the research community. [http://emice.nci.nih.gov/mouse\\_models/organ\\_models/hema\\_models](http://emice.nci.nih.gov/mouse_models/organ_models/hema_models)
- The **Multiple Myeloma/Other Plasma Cell Neoplasms Home Page** directs visitors to up-to-date information on myeloma treatment, prevention, genetics, causes, and other topics. <http://cancer.gov/CancerInformation/CancerType/plasmacellneoplasm>

## Selected Advances in Myeloma Research

- The combination of pegylated liposomal doxorubicin (Doxil®) and bortezomib (Velcade®) improved time to disease progression compared with bortezomib alone and increased the overall survival rate. [http://www.cancer.gov/ncicancerbulletin/NCI\\_Cancer\\_Bulletin\\_082107/page4](http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_082107/page4)
- Researchers identified a small group of genes whose activity could be used to predict high-risk cases of multiple myeloma and potentially guide therapy decisions in the future. [http://www.cancer.gov/ncicancerbulletin/NCI\\_Cancer\\_Bulletin\\_092507/page4](http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_092507/page4)
- Researchers identified molecular changes in multiple myeloma cells that activate an important biological pathway associated with cell growth and survival. <http://www.cancer.gov/newscenter/pressreleases/MyelomaNFkappaB>
- The findings of several clinical trials indicate that bortezomib (Velcade) could be an effective first-line treatment for multiple myeloma. This drug is currently approved in the United States as a second-line treatment for the disease. [http://www.cancer.gov/ncicancerbulletin/NCI\\_Cancer\\_Bulletin\\_121807/page4#e](http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_121807/page4#e)