

Incidence and Mortality Rate Trends

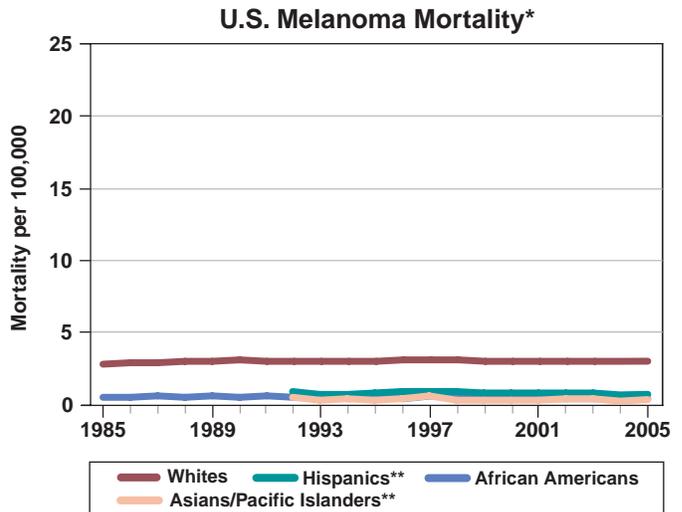
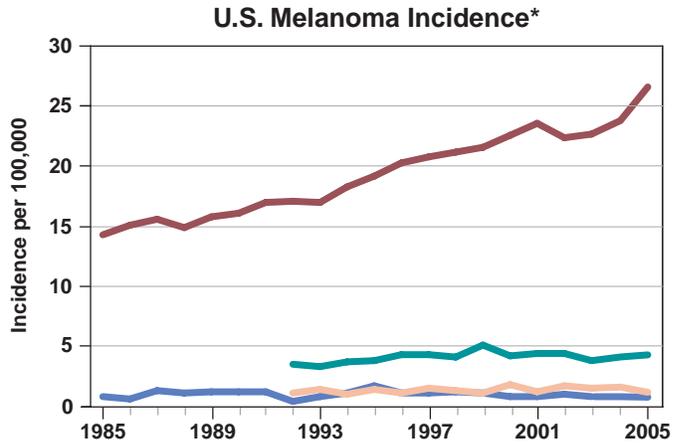
As the most serious form of skin cancer, melanoma is the sixth most common type of new cancer diagnosis in U.S. men and the seventh most common type in U.S. women. The incidence rate for invasive melanoma is highest in whites, who are almost 30 times more likely to develop melanoma than African Americans. Men aged 65 or older are more than twice as likely to develop melanoma as women in the same age group. The annual incidence of invasive cutaneous melanoma, the deadliest form of skin cancer, increased among Caucasian women in the United States aged 15–39 by 50 percent between 1980 and 2004.

It is estimated that in 2008, 67,720 individuals will be diagnosed with melanoma in the United States, and 8,420 people will die as a result of the disease.

Approximately \$1.5 billion¹ is spent in the United States each year on treatment of melanoma.

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>.

¹Cancer 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.



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

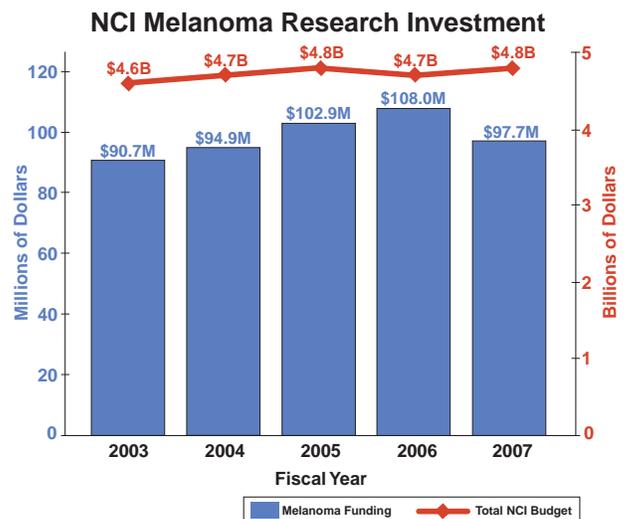
**Data for Hispanics and Asians/Pacific Islanders not available before 1992.

Trends in NCI Funding for Melanoma Research

The National Cancer Institute's (NCI's) investment² in melanoma research increased between fiscal years 2003 and 2006 but decreased to \$97.7 million in fiscal year 2007.

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

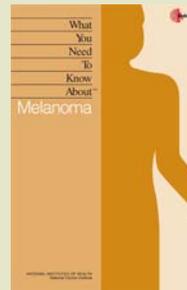
²The estimated NCI investment is based on funding associated with a broad range of peer-reviewed scientific activities. For additional information on research planning and budgeting at the National Institutes of Health, see <http://www.nih.gov/about/>.



Examples of NCI Activities Relevant to Melanoma

- Four skin cancer-specific **Specialized Programs of Research Excellence (SPOREs)** are identifying risk factors for melanoma, developing models to predict the likelihood of metastasis, assessing the effectiveness of novel therapies, and developing new treatments. <http://spores.nci.nih.gov/current/skin/skin.html>
- The **Mouse Models of Human Cancers Consortium (MMHCC)** is developing a collection of mouse models that mimic human skin cancers, including malignant melanoma. http://emice.nci.nih.gov/mouse_models/organ_models/skin_models
- The **Specimen Resource Locator** is a database that helps researchers locate human specimens (e.g., tissue, serum, and DNA/RNA) for cancer research. It includes data on normal, benign, precancerous, and cancerous human tissue from a variety of organs, including skin. <http://pluto3.nci.nih.gov/tissue/default.htm>
- The **Tissue Array Research Program (TARP)** has collected samples of melanoma and metastatic lesions to construct multitumor tissue microarrays for studying the expression of genes and proteins. http://ccr.cancer.gov/tech_initiatives/tarp/MelanomaProgression.asp
- Health professionals can use the **Melanoma Risk Assessment Tool** to identify people at increased risk of melanoma and plan potential screening interventions. <http://www.cancer.gov/melanomarisktool/>

What You Need to Know About™ Melanoma



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

Risk factors for melanoma include: dysplastic nevi, many (more than 50) ordinary moles, fair skin, personal history of melanoma or skin cancer, weakened immune system, severe sunburns, and ultraviolet (UV) radiation exposure.

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

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

- The **Clinical, Laboratory, and Epidemiologic Characterization of Individuals and Families at High Risk of Melanoma Study** is determining how genetic and environmental factors contribute to melanoma development. <http://www.cancer.gov/clinicaltrials/ft-NCI-02-C-0211>
- The **Melanoma Home Page** directs visitors to up-to-date information on melanoma treatment, prevention, genetics, causes, screening, testing, and other topics. <http://cancer.gov/cancerinfo/types/melanoma>

Selected Advances in Melanoma Research

- Antibodies to certain melanoma tumor cells that are responsible for resistance to chemotherapy can help prevent tumors from developing in experimental animals. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_012208/page3#c
- The ARF protein, which regulates the p53 protein, can cause cells to stop dividing and thus prevent melanoma development. <http://ccr.cancer.gov/news/connections/connections-v1-n2-p9-07.pdf>
- The Melanoma Genetics Consortium (GenoMEL) study provides the most extensive characterization to date of mutations in high-risk melanoma susceptibility genes in families with three or more melanoma patients. <http://dceg.cancer.gov/newsletter/Linkage0307.html#article11>
- Over 500 delegates attended the international meeting of the Society for Melanoma Research to discuss recent advances in melanoma biology and therapy. Major scientific themes and advances are highlighted in the meeting report. <http://www.ncbi.nlm.nih.gov/pubmed/18353140>