

Incidence and Mortality Rate Trends

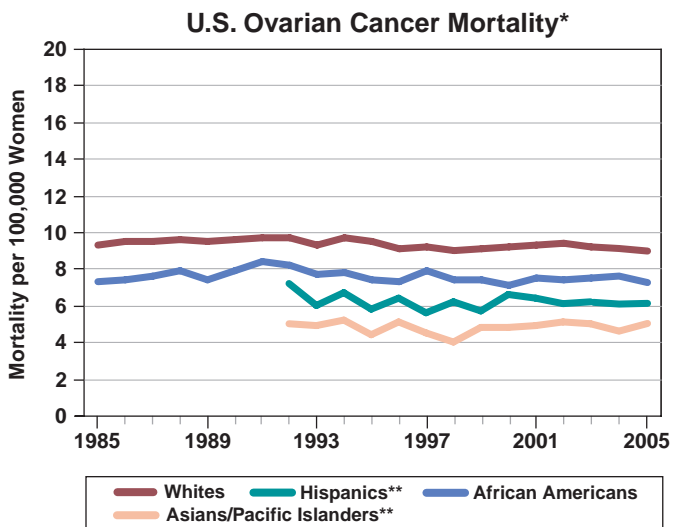
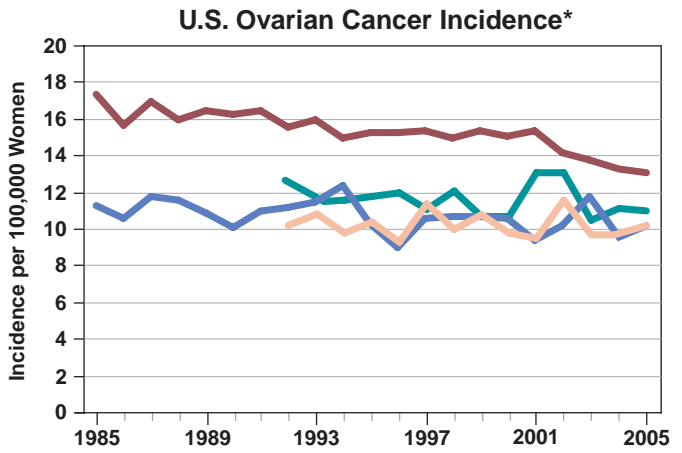
Ovarian cancer accounts for approximately 3 percent of all cancers in women and is the fifth leading cause of cancer-related death among women in the United States. The incidence rate for ovarian cancer has been declining since the early 1990s.

Ovarian cancer has the highest mortality of all cancers of the female reproductive system. This reflects, in part, a lack of early symptoms and proven ovarian cancer screening tests. Thus, ovarian cancer is often diagnosed at an advanced stage, after the cancer has spread beyond the ovary. White women have higher incidence and mortality rates than other racial and ethnic groups.

It is estimated that approximately \$2.2 billion¹ is spent in the United States each year on treatment of ovarian 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/>.

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.



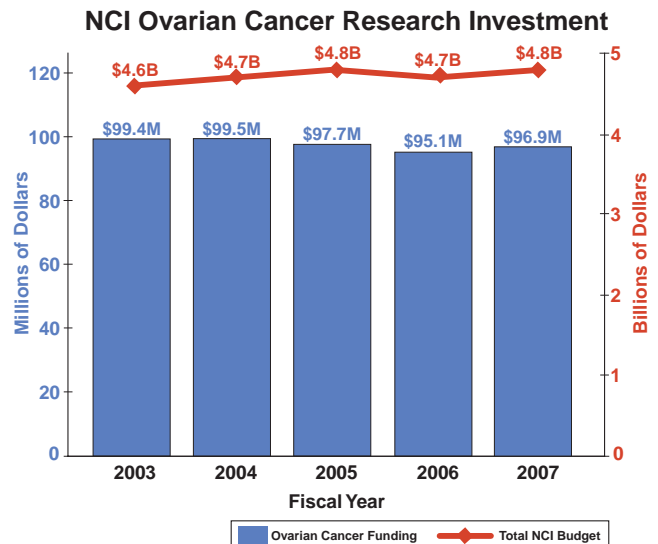
*Significant data for American Indians/Alaskan Natives not available.
**Data for Hispanics and Asians/Pacific Islanders not available before 1992.

Trends in NCI Funding for Ovarian Cancer Research

The National Cancer Institute's (NCI's) investment² in ovarian cancer research decreased from \$99.4 million in fiscal year 2003 to \$96.9 million in fiscal year 2007.

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

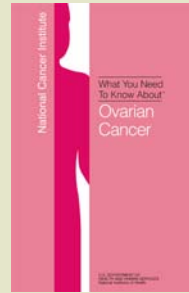
²The estimated NCI investment is based on funding associated with a broad range of peer-reviewed scientific activities. For additional information on research planning and budgeting at the National Institutes of Health, see <http://www.nih.gov/about/>.



Examples of NCI Activities Relevant to Ovarian Cancer

- Five ovarian cancer-specific **Specialized Programs of Research Excellence (SPOREs)** are moving results from the laboratory to the clinical setting. <http://spores.nci.nih.gov/current/ovarian/ovarian.html>
- The **Breast and Gynecologic Malignancies Faculty** facilitates interactions among basic, epidemiological, and clinical researchers to promote the prevention, diagnosis, and cure of breast and gynecologic cancers. <http://ccr.cancer.gov/faculties/faculty.asp?facid=129>
- NCI's **Cancer Nanotechnology Platform Partnerships** are developing technologies for several key areas including molecular imaging and early detection, in vivo imaging, and real-time assessments of treatment. One of these partnerships is studying selective photodestruction (killing) of ovarian cancer cells while leaving normal cells intact. http://nano.cancer.gov/alliance_awards/fact/platforms.asp
- The **New Drug Combination for Ovarian and Primary Peritoneal Cancers** clinical trial is testing the combination of cisplatin, a drug containing platinum, and flavopiridol, which blocks the activity of proteins that help cancer cells grow and spread, in women with ovarian or peritoneal cancer resistant to platinum-based chemotherapy. <http://www.cancer.gov/clinicaltrials/ft-MAYO-MC0261>
- **The Cancer Genome Atlas (TCGA)** is assessing the feasibility of systematically identifying the major genomic changes involved in cancer using state-

What You Need to Know About™ Ovarian Cancer



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

Risk factors for ovarian cancer include: family history of cancer, personal history of cancer, age over 55, no history of pregnancy, and menopausal hormone therapy.

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

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

- of-the-art genomic analysis technologies. Ovarian cancer is one of the first cancer types to be studied in the TCGA pilot phase. <http://cancergenome.nih.gov/index.asp>
- The **National Ovarian Cancer Early Detection Program: Screening and Genetic Study** is determining effective screening and genetic testing methods to identify women at increased risk of ovarian cancer. The study is also designed to develop markers for early detection and novel therapies. <http://www.cancer.gov/search/ViewClinicalTrials.aspx?cdrid=67757&version=HealthProfessional&protocolsearchid=3485672>
- The **Ovarian Cancer Home Page** directs visitors to up-to-date information on ovarian cancer treatment, prevention, genetics, causes, screening, testing, and other topics. <http://www.cancer.gov/ovarian>

Selected Advances in Ovarian Cancer Research

- Researchers have shown in mice that the immune system can prevent growth of cancer cells for extended periods, preventing dormant ovarian cancers from becoming life-threatening. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_120407/page7
- An international team led by NCI researchers found that high levels of certain proteins typically associated with keeping cancer cells alive may actually be associated with longer-term survival in patients with ovarian cancer. <http://www.cancer.gov/newscenter/pressreleases/OvarianBAG4>
- A new nanoparticle can deliver two powerful anticancer drugs, ceramide and paclitaxel, to overcome multi-drug resistance in ovarian tumor cells. http://nano.cancer.gov/news_center/2007/june/nanotech_news_2007-06-14a.asp
- Since their initial licensure nearly 50 years ago, birth control pills containing estrogen have prevented approximately 200,000 cases of ovarian cancer around the world. http://www.cancer.gov/ncicancerbulletin/NCI_Cancer_Bulletin_020508/page2