

Cancer Research Delivers Breakthroughs and Hope

Fund the NIH at \$35 Billion, including:

- *\$5.8 billion for NCI*
- *\$240 million for NCMHD*



The National Institutes of Health (NIH) and its National Cancer Institute (NCI), one of 27 institutes and centers within the NIH, are a central foundation for national cancer research activities in the United States and abroad. For decades, NCI-funded research has played a role in every major cancer prevention, detection and treatment advance, while also delivering scientific breakthroughs for many other diseases. 80 percent of the NIH and NCI budgets support external researchers at cancer centers, universities, and hospitals across the U.S. This support includes funding the many facilities conducting the clinical trials research that drives development of new innovations to improve cancer care and patient quality of life.

Despite cancer's complexity, recent discoveries on genome research and learning how cells replicate is so promising that we are now on the cusp of a whole new realm of understanding that will help us deliver more personalized, less invasive cancer care. The remarkable returns on our continuing research investment are clear:

- Rates of both incidence and mortality from all cancers combined have continued to decline significantly overall for both men and women and for most racial and ethnic populations in the United States. New diagnoses for all types of cancer combined in the United States decreased, on average, almost one percent per year from 1999 to 2006. Cancer deaths decreased 1.6 percent per year from 2001 to 2006;¹
- We now have 11 million cancer survivors in the U.S. – living proof of the gains we've made. Today, two-thirds of patients survive five years or longer after their cancer diagnosis, compared to only just half of patients reaching that survival mark forty years ago.

Despite these successes, progress in certain areas has not kept pace. Moreover, cancer incidence is projected to nearly double by 2020, particularly among the aging baby boomer population. These trends signal a clear call for action to address specific areas of need and opportunity, including:

- Developing early detection tools and better treatments for those cancers that remain most lethal. Lung and pancreatic cancer – the first and fourth leading causes of cancer related deaths – have not seen substantial improvements in survival rates in more than 30 years. Similarly, ovarian, kidney, and several other forms of cancer still lack effective early detection tools and treatments to improve health outcomes;
- Putting our cancer prevention, early detection, and treatment knowledge to use in all populations to address significant existing disparities in health outcomes, particularly among certain racial and ethnic groups and other medically underserved populations;
- Improving quality of care and reducing suffering by advancing pain and symptom management, and other research supporting quality of life for cancer patients, survivors, and their loved ones.

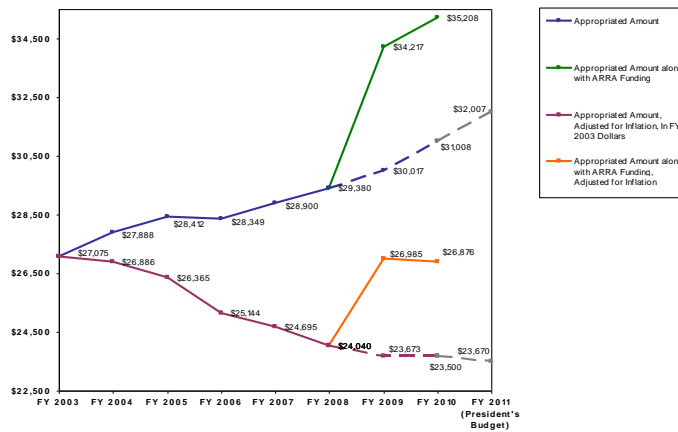
Recovery Act Funding is Saving Lives and Jobs

The 2009 American Recovery and Reinvestment Act invested \$10.4 billion over two years in NIH research – the single largest source of biomedical research funding in the world. Coupled with an annual budget of over \$30 billion, these funds are now driving delivery of new research advances, training the next generation of investigators, creating jobs, promoting industry growth, and helping reduce health care costs. Scientists are using these funds to:

- Explore strategies not even possible ten years ago, before advances in genomics, proteomics, and regenerative medicine opened new avenues for research;
- Build on insights of previous discoveries to more quickly deliver new treatments for patients;

¹ Annual report to the nation on the status of cancer, 1975–2006 (2010). Available at <http://www.ncbi.nlm.nih.gov/pubmed/19998273>

- Improve health care quality by finding the right treatment for each patient, forging a new age of personalized medicine.²



Funding Will Fuel Even More Research, Promise, and Progress

We must build on these vital NIH investments to realize the promise emerging from this funding. In the past year alone, this research support has delivered numerous important clinical advances addressing hard-to-treat cancers, cancer prevention and screening, and patient quality of life.³ Some highlights include:

- Results from a large, international clinical trial established a new standard of care for patients with advanced lung cancer. Researchers found that the drug Pemetrexed increased overall survival after standard chemotherapy by 50 percent, and that the risk of side effects was low.
- Research found that the HPV vaccine (Gardasil) may reduce risk of cervical cancer and other HPV-related diseases for a larger population of women than previously thought. The vaccine is currently approved to prevent infection in girls and women aged 9 to 26, but has since also been shown beneficial in women aged 25-45 who have not been previously infected with the HPV strains the vaccine targets.
- A large, randomized study found that patients receiving ginger in capsule form experienced significantly less chemotherapy-related nausea than patients receiving a placebo. Patients in both groups also received traditional drugs used to manage nausea associated with chemotherapy.

Economic Benefits to Communities

NIH funding also stimulates local economies. More than 85 percent of its budget funds over 30,000 extramural research grants and contracts taking place at universities, medical research centers, hospitals, and research institutes in all 50 states. The impact is clear. In fiscal year 2007, alone, for example:

- Each dollar of NIH's nearly \$23 billion investment generated more than twice as much (\$50.5 billion) in new state business activity in the form of increased output of goods and services. This amounts to a \$2.21 return for every NIH dollar spent.
- NIH grants and contracts created and supported more than 350,000 jobs that generated wages in excess of \$18 billion in the 50 states, plus another 800,000 supporting jobs created in the private sector (e.g., pharmaceutical, biotechnology, medical device and medical lab testing jobs).⁴

FY 2011 Funding for NIH and NCI

To ensure that the research being supported today yields the cancer treatments of tomorrow, Congress must sustain and expand the support they are currently providing. Once Voice Against Cancer urges Congress to sustain the current level of support for medical research and provide the NIH with a budget of \$35.2 billion in the FY 2011 LHHHS appropriations bill, including \$5.8 billion for the NCI, and \$240 million for the National Center on Minority Health and Health Disparities.

² Investing in Recovery and Discovery: How NIH Recovery and Reinvestment Act Grants Are Improving Health and the Economy. United for Medical Research (2010). Available at: <http://www.investingindiscovery.com/documents/view.html>

³ Clinical Cancer Advances 2009. ASCO (2009). Available at: <http://jco.ascopubs.org/cgi/content/full/27/35/6052>

⁴ In Your Own Backyard. How NIH Funding Helps Your States Economy. Families USA Foundation (2008) (Report available at www.familiesusa.org).