

NIH Fact Sheet August 2011

The partnership between the National Institutes of Health (NIH) and America's scientific research community is a national investment in improving health and quality of life, and strengthening the nation's long-term economy. The nation's longstanding, bipartisan commitment to NIH has established the United States as the world leader in medical research and innovation.

As the primary federal agency responsible for conducting and supporting medical research, NIH-funded research drives scientific innovation and develops new and better diagnostics, prevention strategies, and more effective treatments. NIH-funded research also contributes to the nation's economic strength by creating skilled, high-paying jobs; new products and industries; and improved technologies.

NIH-FUNDED RESEARCH HAPPENS IN ALL 50 STATES, AND BENEFITS ALL AMERICANS

- **More than 83 percent of NIH research funding is awarded to more than 3,000 universities, medical schools, teaching hospitals, and other research institutions, located in every state.** These are funded through almost 50,000 competitive, peer-reviewed grants and contracts to more than 350,000 researchers. Information about FY 2010 funding to individual states and congressional districts is available at: http://report.nih.gov/award/trends/State_Congressional/StateOverview.cfm
- **NIH research is creating dramatic new research opportunities.** Areas range from genetics to behavioral research, spurring advancements and precipitating the promise of personalized medicine that will yield far-reaching health and economic benefits. A sampling of recent research advances is available at: <http://www.nih.gov/about/researchhighlights/>
- **NIH research works for American families and American society.** U.S. life expectancy has increased dramatically over the past century and still continues to improve, gaining about one year of longevity every six years since 1990. A baby born today can look forward to an average life span of nearly 78 years, almost three decades longer than a baby born in 1900. Not only are people living longer, they are staying active longer. From 1982 through 2005, the proportion of older people with chronic disabilities dropped by almost a third, from 27 percent to 19 percent.

NIH-FUNDED RESEARCH IMPROVES THE NATION'S HEALTH AND WELL-BEING

- **NIH research funding produces successful prevention strategies.** Insights from the NIH-funded Framingham Heart Study, which began in the late 1940s and is still going strong, have changed the course of public health by identifying key risk factors for heart disease. Today, the death rate for coronary heart disease is more than 60 percent lower -- and the death rate for stroke, 70 percent lower -- than in the World War II era. NIH-supported research has led to minimally invasive techniques to prevent heart attacks and to highly effective drugs to lower cholesterol, control high blood pressure, and break up artery-clogging blood clots. NIH-funded science has also helped people make lifestyle changes that promote health, such as eating less fat, exercising more, and quitting smoking.
- **NIH research funding helps improve diagnostic and treatment options.** In 2007, for the first time in our nation's history, the absolute number of cancer deaths in the U.S. went down. Over the past 15 years, cancer death rates have dropped 11.4 percent among women and 19.2 percent among men, which translates into some 650,000 lives saved. NIH-funded research has revolutionized how we think about cancer. A decade or two ago, cancer treatment was mostly reactive; diagnosis was based on the organ involved and treatment depended on brute force therapies that were highly toxic and often greatly diminished the patient's quality of life. Today, basic research in cancer biology is moving treatment toward more effective, targeted, and less toxic therapies tailored to the genetic profile of each patient -- and each patient's cancer.

NIH-FUNDED RESEARCH BENEFITS THE ECONOMY

- **Medical research plays an important role in stimulating our economy.** It creates and/or saves high-wage, high-tech jobs at a critical time for the U.S. economy. A report issued by Families USA estimated that in 2007, NIH awards to the states resulted in jobs that paid an average annual wage of more than \$52,000 per annum and accounted for more than \$18 billion in wages. More recently, a report issued by United for Medical Research estimated that NIH investment in 2010 led to the creation of 487,900 quality jobs and produced \$68.035 billion in new economic activity across the country.
- **Long term, NIH-funded R&D sparks U.S. economic innovation.** Industries and sectors that benefit include the high-technology and high value-added pharmaceutical and biotechnology industries, among others. For example, between 1982 and 2006, one-third of all drugs and nearly 60 percent of promising new molecular entities approved by the FDA cited either an NIH-funded publication or an NIH patent.
- **NIH research funding catalyzes private sector growth.** One study estimated that taking into account the multiplier effect of jobs created in other sectors by NIH-supported research, biopharmaceuticals supported total employment of 3.2 million jobs in 2006, including 686,442 direct jobs and significant source of employment in the U.S. economy.
- **Global Innovation Competition is Changing:** The Boston Consulting Group, which ranks innovation output by country, said “Brazil, India and China are in the ascendency and appear poised to put a major dent in the mature economies’ position, if not to assume their leadership role outright.” (BCG Innovation Survey 2010: <http://www.bcg.com/documents/file42620.pdf>)
- **Many Nations continue to increase, protect science funding as a competitive factor:** China continues to grow their science portfolio, with annual increases to their R&D budget averaging 23 percent per year since 2000. In contrast, mature economies weigh deep budget cuts with investments in productive programs. In spite of the proposals for 19 percent in reductions in the British government’s budget, the conservative party decided to keep strategic investments in science at existing levels. Similarly, despite entering an era of austerity and facing fiscal constraints similar to what the U.S. is experiencing, the European Union (EU) is considering a proposal to increase spending on research and innovation by approximately 45 percent between 2014-2020, while other major spending areas remain flat.