The Value of NIH-Funded Research at Medical Schools and Teaching Hospitals

AAMC
Tomorrow's Doctors, Tomorrow's Cures®

Since its inception, the National Institutes of Health (NIH) has helped Americans live healthier, longer lives. Funding medical research today pays a lifetime of dividends in saving lives, promoting better health outcomes, and improving the quality of life for all Americans. Today, it is more important than ever to ensure that this critical agency can continue to support both the health of Americans and regional and local economies.

DISEASE IS COSTLY

RESEARCH PROVIDES HOPE

$208 BILLION

Cost of cancer care in the U.S. **in 2020**[1]

Lives saved by cancer research since 1991[2]

3.8 MILLION

$1+ TRILLION

Cost of cardiovascular disease in the U.S. **by 2035**[3]

Decrease in rate of deaths from heart attack per 100,000 people from 1999 to 2020[4]

56%

$1+ TRILLION

Cost of care for Alzheimer's disease in the U.S. **by 2050**[5]

Active pharmacological clinical trials to treat Alzheimer's disease and related dementias[6]

68

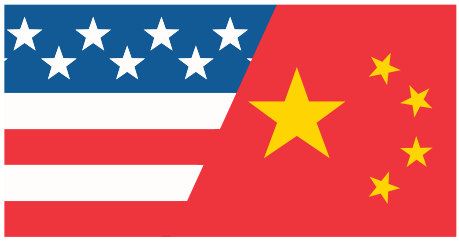
350+

NIH-funded research was the basis for **all 356 new drugs approved by the Food and Drug Administration** between 2010 and 2019.[7]

In 2019, **research conducted at AAMC-member medical schools and teaching health systems and hospitals** generated[8]:

$33 BILLION in gross domestic product

348,000 JOBS



The **gap is closing between the United States' and China's** research and development (R&D) expenditures.[9]

60%

AAMC-member medical schools and affiliated hospitals, centers, and other institutions conduct **approximately 60% of all NIH extramural research**.[10]

Medical research is pioneering many critical advances that help all Americans live longer and healthier lives. The long-term research funded by the **NIH has been behind almost every test, treatment, or cure for patients** and leads to improved health tomorrow.

MAY 2025

More information: **aamc.org/advocacy-policy/research-policy-and-priorities**

Association of American Medical Colleges

NIH-Funded Research at Medical Schools and Teaching Hospitals: A Closer Look

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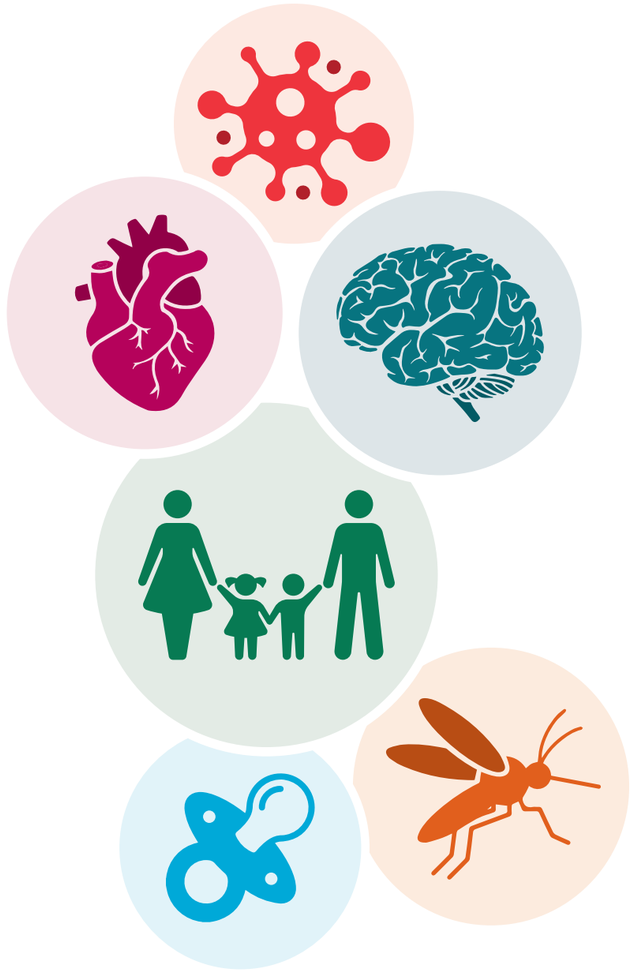
AAMC-member medical schools and teaching health systems and hospitals conduct nearly 60% of all extramural research funded by the NIH.[10] In recent years, bipartisan support for medical research supported by the NIH has helped recapture lost ground after more than a decade of underfunding, but continued support is needed to fully harness novel research tools and partnerships against existing and looming threats.

The cumulative nature of scientific advancement means that discoveries build upon themselves. A failure to invest more in a particular year has a cascade effect, resulting in much longer delays in discovery and development.

Sustained, meaningful growth in the NIH budget, and the research at medical schools and teaching health systems and hospitals that it funds, is an investment that results in saved lives, better health, economic growth, stronger local and regional economies, and U.S. global leadership in science and technology.



Improving Our Health

The NIH is the nation's primary funder of medical research behind just about every test, treatment, and cure. The research NIH funds today leads to improved health tomorrow, including:

- Almost 3.8 million lives saved by cancer research since 1991.[2]
- A 56% decrease in the rate of heart attack deaths per 100,000 people between 1999 and 2020.[4]
- All 356 new FDA-approved drugs from 2010 to 2019.[7]
- 495 active clinical trials on Alzheimer's disease and related dementias.[6]
- Cutting-edge and life-saving innovations in care and treatment, including cell-based gene therapies for treatment of sickle cell disease,[11] immunotherapies for lung cancer and leukemia,[12] ways to determine the effectiveness of chemotherapy on breast cancer,[13] and advancements in cochlear implants[14] and liver transplants.[15]
- A 90% decrease in the number of children perinatally infected with HIV.[16]

Advancing Science

The NIH spends nearly half its budget on basic science research, which is the foundation for important developments that lead to clinical breakthroughs. In addition to its work furthering pioneering basic science and medical research, the NIH funds translational science, the process of turning laboratory findings into interventions that improve the health of patients and communities.[17] For example, the Clinical and Translational Science Awards (CTSA) and the Institutional Development Award (IDeA) programs are committed to accelerating clinical and translational research to address health disparities and the burden of conditions that disproportionately affect rural communities.[18]

When Congress supports the NIH with strong, steady funding growth, it is supporting medical research that pays a lifetime of dividends in saving lives, improving health outcomes, and improving the quality of life for every American. Some of these research advancements include:

- Research into bacterial immune systems led to the discovery of the gene-editing technique CRISPR,[11] which, among other applications, could make chemotherapy less toxic and cure blood disorders.[19]
- CRISPR therapies have been approved by the FDA as the first cell-based gene therapies for treatment of sickle cell disease in patients 12 and older.[11]
- More than two decades of discovery in an emerging science made it possible to develop and manufacture the COVID-19 mRNA vaccines in only nine months.[20] And, according to the CDC, those vaccines prevented about 27 million infections, 1.6 million hospitalizations, and 235,000 deaths among U.S. adults from December 2020 to September 2021.[21]
- NIH funded the clinical trials that demonstrated that three drugs can treat diabetic retinopathy, the leading cause of blindness in working-age adults. These drugs reversed vision loss and provided the first new therapies in 25 years.[22]

Bolstering Our Economy

Growing the NIH is a smart investment. NIH-funded research generates high-quality jobs and business development in every state across the country and enhances U.S. global competitiveness:

- In FY 2024, NIH-funded research supported more than 407,782 jobs across the U.S. and generated more than $94.6 billion in economic activity.[23]
- The return on investment of NIH funds in research is significant : $1.00 of NIH-funded research is equivalent to $2.56 in economic activity.[24]

Maintaining Our Global Competitiveness

As the world's premier public funder of medical research, the NIH is a critical contributor to our international leadership. We risk falling behind other countries if we do not adequately invest in the NIH:

- The U.S. has long been the global leader in medical research, but other countries are catching up. Without steady and robust funding growth, China will soon outspend the U.S. on all R&D.[9]
- In 2000, the U.S. was responsible for 37.1% of worldwide R&D expenditures; by 2019, it decreased to 27.3% of R&D. China was only responsible for 4.5% of global R&D spending in 2000 and has now increased to 22%.[9]
- From 2018 to 2020, China accounted for 27.2% of the most-cited papers; the United States fell behind at 24.9%.[25]
- In 2021, the U.S. was responsible for $806 billion in gross domestic expenditures on R&D, while China was responsible for $668 billion.[26]

We urge policymakers to support strong funding growth for NIH so that small discoveries can continue to lead to big breakthroughs and deliver future treatments and cures for patients.

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