Election 2012: Obama Re-elected, Congressional Majorities Hold

The 2012 election saw no large-scale changes—President Barack Obama was re-elected, while Democrats added to their majority in the Senate and Republicans in the House maintained their majority—but how medical and health research will be received by the 113th Congress remains to be seen.

Though this election had few surprises, it confirmed that the United States in 2012 is a politically divided country. In spite of that, research to improve health has traditionally been—and can be again—an issue that brings both parties together in agreement.

Several incoming Members of Congress on both sides of the aisle have ties to science or health or have previously noted an interest in our issues: Joyce Beatty, an Ohio Democrat, was formerly executive director of a county-level health department; George E. B. Holding, a North Carolina Republican, has a strong interest in intellectual property issues related to research, according to a bio from CQ.

Others have more broad ties to science and health, such as former health care executive Cheri Bustos and physicist Bill Foster, PhD, both Democrats from Illinois. Brad Wenstrup, DPM, a podiatrist, is a Republican from Ohio.

More than 40 winning candidates from the 2012 elections have participated in our voter education initiative, Your Candidates—Your Health, offering valuable insight into where these newly elected Members stand on medical research issues. Visit www.yourcandidatesyourhealth.org to see responses from your representatives.

Week of Action Urges Congress to Support Medical Research

Research!America, partnering with academic, voluntary health, nonprofit, business and philanthropic organizations, is spearheading a week of action, November 12-16, designed to ensure congressional support for research to improve health. The theme of the campaign—We Need Cures, Not Cuts—is meant to remind policy makers and the public of the importance of health and medical research amid the looming threat of sequestration, or the across-the-board spending cuts scheduled to take effect in January 2013.

The campaign will include a mix of advertising, Capitol Hill visits, coordinated phone calls and emails among participating groups to Hill offices, policy briefings and media messaging, and a sign-on letter for congressional leaders. Patient advocates and health care groups are encouraged to visit www.saveresearch.org to find out more information about the campaign; the website includes a calendar of events and a wealth of resources to supplement your advocacy.

Wide Majority Says It’s Important the U.S. Keep Leadership in Research

How important is it to you that the U.S. maintains its world leadership in medical research?

SOURCE: A RESEARCH!AMERICA POLL OF LIKELY VOTERS CONDUCTED IN PARTNERSHIP WITH JZ ANALYTICS, WITH SUPPORT FROM UNITED FOR MEDICAL RESEARCH, IN SEPTEMBER 2012. (TOTALS DO NOT ADD TO 100% DUE TO ROUNDING.)
Tracing its roots to 1914, the Ohio State University College of Nursing became part of OSU in 1922, its own distinct school within OSU in 1928 and an autonomous college in 1984. Today, the college has a $14.1 million budget to support more than 120 faculty and staff and 1,487 students. The college’s mission is to transform health and transform lives through innovative academic programs, cutting-edge research that improves outcomes and evidence-based clinical practice.

Bernadette Mazurek Melnyk, PhD, RN, is the dean of the College of Nursing, but that's hardly her only role at Ohio State. She’s also the university’s chief wellness officer and its associate vice president for health promotion. All of it adds up to a busy woman.

“Every day is very exciting, and I never have the opportunity to be bored,” Melnyk said with a laugh. She is a big believer in the evidence-based practice that shows up in the college’s curriculum. “We start from the foundation, from the day [students] enter their programs,” Melnyk said. In her role as the university’s chief wellness officer, she spearheads the implementation of evidence-based health and wellness initiatives across the university. But, she said, unless these best practices are actually implemented in the clinical or real-world setting, they are of little use. Ensuring that happens requires continuous effort and reinforcement.

Melnyk is also concerned about what she sees regarding the lack of measures included in research that most directly affect health outcomes and the bottom line. For instance, she said, her own research on parents of low birth weight premature babies was more than 20 years in the making before it was implemented in neonatal intensive care units across the country—and only then because her trials demonstrated that babies could spend an average of four fewer days in the hospital, eight days less with preterms under 32 weeks.

“So that has huge cost implications,” Melnyk said.

As for the future, her vision goes far beyond the OSU campus: Melnyk wants to extend the goal of having “the healthiest university on the globe” beyond the campus to the community of Columbus and the state of Ohio, and will track important outcome data to demonstrate how and when that happens.

Research!America’s advocacy is a critical reason why the College of Nursing is a member.

“The advocacy that you do, the connections that you have to garner more funding and resources for us, particularly in academia, is super important,” Melnyk said.

To learn more, visit http://nursing.osu.edu.

Research!America stands on a reputation of innovative advocacy that generates results serving our mission and the interests of our members:

• Our Week of Advocacy, November 12-16, is marshaling stakeholders to let elected officials know about the potential harm of the fiscal cliff.

• Publications by Research!America explain the importance of health and medical research to Americans. Our report, U.S. Investment in Health Research, details cross-sector spending on research to improve health and provides year-to-year trends on whether those investments are increasing or decreasing.
**—Research!America President and CEO Mary Woolley will be a guest on
BioCentury This Week on November 11. The show will be broadcast on WUSA-9
in the Washington, DC, region on Sunday at 8:30 a.m. In other areas, watch the
interview on the show’s website at www.biocenturytv.com.

Nobel Prizes in Science
Research!America President and CEO Mary Woolley’s op-ed on the Nobel Prizes
was picked up by nine McClatchy newspapers across the country, including The
Philadelphia Inquirer and The Sacramento (CA) Bee, and reaching more than 7 mil-
lion readers. “Have elected officials become too numb to the reality that world-class
science doesn’t happen without a world-class commitment?” she wrote. “We must
elect candidates who will make science a priority. That should be a no-brainer.”

Top 10 Reasons to Invest in Global Health
Research!America unveiled a redesigned global health section of its website, lead-
ing with a list of top 10 reasons to invest in global health. The list was featured in
the Kaiser Daily Global Health Policy Report, Science Speaks blog and News-
Medical. The list included several compelling reasons to invest, from preserving
the nation’s health to being a powerful economic driver of the U.S. economy.

2011 Investment in Health Research Report
Research!America’s 2011 U.S. Investment in Health Research Report, released in
October, provides information about the overall investment in biomedical and
health research in the United States, including a look at possible scenarios con-
cerning budget cuts. A number of media outlets covered the report’s release,
including The Hill’s Healthwatch, Examiner.com, Politico Pro and The Scientist
covered the report’s release. CQ Healthbeat interviewed Mary Woolley about the
report and ran an article with several quotes.

2012 Presidential Election
Research!America was mentioned in several articles about the presidential election
and its implications for health, science and biomedical research. Eleanor “Ellie”
Dehoney, Research!America’s VP for policy and programs, was quoted in an article
about President Barack Obama’s science report card in The Scientist. Mary
Woolley was interviewed in an article about the presidential candidates’ positions
on science and research in Nature.

Presidential Debate Response
Following the first presidential debate, Research!America issued a statement
regarding to the lack of attention to science and research. The statement was
included in The Scientist. “The first presidential debate was a missed opportunity
for the candidates to outline a vision for putting research and innovation to work
to improve health and strengthen the economy,” Mary Woolley said.

Sequestration Impact on Local Hospitals
In an article about the impact of across-the-board cuts, or “sequester,” in the
Washington Business Journal, Research!America was cited as a coalition that is cur-
rently campaigning against the cuts. Mark Batshaw, MD, director of the
Children’s Research Institute at Children’s National Medical Center in
Washington, DC, was interviewed. “You’re cutting back on research that ultimately
leads to intellectual property,” Batshaw said.
**Fiscal Cliff Draws Near**

With the elections over, Congress will reconvene in mid-November for its lame-duck session. Chief among its priorities is dealing with the pending fiscal cliff, an array of tax increases and unpopular cuts to both entitlement and discretionary spending that are scheduled to take place in January 2013.

Several of the proposals for avoiding the cliff would harm research as much or even more than the cliff itself.

One facet of the fiscal cliff, known as “sequestration,” entails across-the-board cuts to defense and non-defense discretionary spending. It is estimated that under sequestration, funding for our nation’s health research agencies would be cut by approximately 8.2% in 2013, or $3.9 billion. Cuts like these would continue for a decade, dramatically reducing resources for the National Institutes of Health, the Centers for Disease Control and Prevention, the Food and Drug Administration, and the National Science Foundation.

Even more devastating to research is to allow sequestration to happen while exempting defense from funding cuts. In this scenario, the agencies subject to sequestration—including NIH, CDC, FDA and NSF—would be subject to even larger budget cuts.

A third option would be to implement a grand bargain. Several have been proposed: One developed by former White House Chief of Staff Erskine Bowles and former Sen. Alan Simpson (R-WY) is most often mentioned. Most of these options also place research at grave risk by imposing even more stringent caps on annual discretionary spending than were established under the 2011 Budget Control Act.

A final option, one that appears most likely, would be to delay any cuts until March, when the 113th Congress could take action. That gives advocates time to fight for a solution that avoids further cuts to discretionary spending, which has already taken the brunt of deficit reduction cuts.

**CPh Foundation Update**

The November meetings between business leaders and senior staff of the CDC are filled to capacity. The CPH Foundation will host 30 senior corporate officials for an evening networking reception and day-long tour of the CDC on November 19 and 20. Participants will also go “behind the scenes” to tour some of the CDC’s key disease control and response facilities. A grant from the United Health Foundation made this event possible.

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**2013 Federal Research Budget**

<table>
<thead>
<tr>
<th>Agency</th>
<th>FY13 President’s Request</th>
<th>FY13 House</th>
<th>FY13 Senate</th>
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<tbody>
<tr>
<td>National Institutes of Health</td>
<td>$30.7 billion</td>
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<td>$30.72 billion</td>
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<tr>
<td>Centers for Disease Control and Prevention*</td>
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<td>Food and Drug Administration</td>
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<td>National Science Foundation</td>
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<tr>
<td>Agency for Healthcare Research and Quality**</td>
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<td>$0</td>
<td>$0.36 billion</td>
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* CDC core budget. The House bill terminated funding for the Prevention and Public Health Fund.
** Excludes funding from transfers.

Note: At the time of this writing, funding levels have not gone to a floor vote for NIH, CDC, FDA and AHRQ. NSF funding levels have been approved by the House but have not been voted on by the Senate.
Former Sen. Arlen Specter, a Champion for Research, Dies

Former Sen. Arlen Specter, Pennsylvania’s longest serving senator and a towering figure in medical research advocacy, died October 14. He was 82.

Specter’s efforts in the Senate led to a doubling of the budget for the National Institutes of Health from 1998 to 2003. He helped to secure $10 billion in additional NIH funding as part of the American Recovery and Reinvestment Act of 2009. Specter was also a proponent of human embryonic stem cell research.

“We extend our deepest condolences to Senator Arlen Specter’s family, friends and colleagues as they mourn the passing of a loved and respected statesman and a true champion of medical research,” Research!America’s chair, The Honorable John Edward Porter, and president and CEO, Mary Woolley, said in a statement. “Specter’s leadership in generating critical support for medical and health research is a testament to his dedication to improving the health of all Americans and securing our position as a global leader in science and innovation.”

Research!America honored Specter with two awards: In 2000, he and Porter were the second recipients of the Edwin C. Whitehead Award for Medical Research Advocacy. And in 2009, he became the most recent winner of the rarely given Legacy Award; the award has been given out only three times in Research!America’s history.

“Arlen served as a forceful advocate for the millions of Americans eagerly awaiting new cures and treatments,” NIH Director Francis Collins, MD, PhD, said in a statement. “His favorite saying, which we all heard many times over the years, was that NIH was the crown jewel of the federal government.

“I truly miss Arlen’s steady hand and vision for our agency … Arlen was the epitome of a public servant, and the American people were extremely well served by his wisdom and vigilance. His expectations of the NIH were as high as his confidence in NIH.”

Andrea Mitchell, chief foreign affairs correspondent for NBC News, wrote that in Specter’s final days, he reached out to her for a final interview to discuss his legacy as a champion for medical research.

“I covered him for many years, from the time I started as a local radio reporter after graduating college in Philadelphia,” Mitchell wrote on NBC’s website on October 14. “That relationship came full circle a few weeks ago, when Specter, near the end of his life after defying the odds in multiple battles with cancer and other illnesses, reached out to me through an aide to do one last interview. Why? He wanted to talk about the importance of funding the National Institutes of Health. Knowing he did not have much longer to live, Specter wanted his legacy to be his record of expanding resources for the NIH, the government agency he felt had extended his life and saved countless others. As a key Senate appropriator for decades, he was a fierce advocate for stem cell research, breast cancer funding and funding for Alzheimer’s research. But despite his hopes, he wasn’t strong enough to do the interview. His family wanted him to conserve his energy.”

Special Thanks to New and Renewing Research!America Alliance Members

**New Members**
- AMDeC
- Association of Clinical Research Organizations
- Association of University Research Parks
- Siemens Medical Solutions USA, Inc.

**Renewing Members**
- American Association of Public Health Dentistry
- American Cancer Society
- American Pediatric Society
- American Society of Clinical Oncology
- Autoimmune Disease Association
- Bristol-Myers Squibb

Chicago Council on Science and Technology (C2ST)
- The Children’s Hospital of Philadelphia
- Citizens United for Research in Epilepsy (CURE)
- The Foundation Fighting Blindness
- Georgetown University Medical Center
- Georgia Research Alliance
- Heat Transfer Research, Inc.
- The Medical College of Wisconsin
- Society for Public Health Education
- Society for Women’s Health Research

SPARC, The Scholarly Publishing and Academic Resources Coalition
- Steven A. Schroeder Institute for Tobacco Research and Policy Studies
- University of Louisville
- University of Miami
- University of Washington School of Medicine
- Van Andel Research Institute
- Wayne State University
- Nell Hodgson Woodruff School of Nursing, Emory University

Not yet a member? Join Research!America today at www.researchamerica.org/supportourwork
Jay Gershen, DDS, PhD, a Research!America Board member, was named to the board of the Association of Academic Health Centers.

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ITIF Report Details Long-Term Impact of Sequestration


The report, written by Robert Atkinson, PhD, and Justin Hicks, PhD, found that during nine years of sequester, the projected decline in R&D will result in losses to GDP of between $203 billion and $680 billion. In 2013 alone, sequestration of R&D programs could result in as many as 200,000 lost jobs.

“Reducing the budget deficit is important,” the authors write, “but it should not and does not have to come at the expense of growth-inducing investments in areas like federal support for R&D. In fact, undermining growth capability is disruptive of a deficit control policy.”

Download the full report at www.itif.org.

Democrats on House Appropriations Committee Release Dear Colleague Letter on Sequestration

Rep. Norm Dicks (D-WA), ranking member of the House Appropriations Committee, released a Dear Colleague letter to detail the pending sequestration cuts to a range of federal programs, including medical research.

Dicks cites the previously published potential cuts to the National Institutes of Health, the Centers for Disease Control and Prevention, and the National Science Foundation. In addition, he writes about how cuts would affect defense, homeland security, broader public safety, international affairs, education and personnel budgets for the White House and Congress.

“My purpose here is to illustrate the consequences of an automatic, across-the-board, uniform percentage reduction prescribed by the Budget Control Act,” Dicks wrote. “This letter will examine the impact of sequestration on the whole range of federal responsibilities and, I hope, help make the case for Congress to act responsibly by agreeing to a more sensible approach to deficit reduction.”

“Congress,” Dicks concluded, “must find a way to replace sequestration with a balanced approach to long-term deficit reduction that focuses on economic growth and job creation and does no harm to our economic recovery in the short run.”

Unintended Consequences of Across-the-Board Cuts Concerns Voters

Unintended Consequences of Across-the-Board Cuts Concerns Voters

Which comes closest to your views?

SOURCE: A RESEARCH!AMERICA POLL OF LIKELY VOTERS CONDUCTED IN PARTNERSHIP WITH JZ ANALYTICS, WITH SUPPORT FROM UNITED FOR MEDICAL RESEARCH, IN SEPTEMBER 2012.

- The defense budget shouldn’t be cut across the board as a way to reduce the deficit, but across-the-board cuts to the non-defense budget are OK. 16%
- The non-defense budget shouldn’t be cut across the board as a way to reduce the deficit, but across-the-board cuts to the defense budget are OK. 19%
- Across-the-board cuts can have unintended consequences for both the defense and non-defense budgets. Neither should be cut in this manner. 32%
- I support across-the-board cuts for both defense and non-defense budgets as a way to reduce the deficit. 17%
- Not sure 16%

According to the 2011 U.S. Investment in Health Research report, biomedical and health research and development spending declined for the first time since Research!America began collecting this data in 2002. The troubling numbers show that spending from all sources declined by more than $4 billion, or 3%, between FY10 and FY11.

Overall, the report shows varying levels of health research funding in the public and private sector. While federal funding for research decreased by 14% between FY10 and FY11, private industry has seen a 1.4% increase despite inflationary pressure and the economic downturn.

The decline in federal funding for research follows an uptick in two fiscal years (2009 and 2010) during which the American Recovery and Reinvestment Act (ARRA) allocated more than $10 billion to the National Institutes of Health. Additionally, this downward trend in R&D comes at a time when other nations are ramping up their investments in research, and pending across-the-board cuts here could reduce federal biomedical and health research funding by 8%-10% or more.

FASEB Details Impact of Federal Research by Congressional District

The Federation of American Societies for Experimental Biology, a Research!America member, has released a new resource which illustrates the true impact of research by the federal government. FASEB collected data in order to describe the value of the National Institutes of Health funding in congressional districts across the country.

FASEB President Judith S. Bond, PhD, called the fact sheets a tremendous resource and noted that “in the current fiscal climate, it is imperative that scientists and concerned scientists educate their elected officials about the value of NIH funding in their communities.”

Each of the fact sheets is available on FASEB’s website and include the level of funding as well as real-world examples of how locally funded research has improved health, increased innovation, helped bolster the economy and trained the next generation of scientists. Biomedical and health research and development funding, such as that given to the NIH and other government agencies, is critical for both the economic well-being of our country and the welfare of its citizens.

Give Thanks to our Silent Heroes

Did you know that U.S. public health professionals work around the globe to protect American health? The Centers for Disease Control and Prevention plays a vital role in monitoring and detecting diseases as well as overseeing immunization and treatment campaigns. In the past month, global public health workers have celebrated the near-eradication of diseases like guinea worm and polio. Domestically, public health professionals have coordinated responses to emergencies like Sandy and the recent meningitis outbreak. The CDC offered storm health updates by text during the hurricane, and it worked tirelessly to track the source of the meningitis outbreak and reach out to nearly every individual that may have received a contaminated injection. In addition to these extraordinary efforts, public health professionals work each and every day to give flu shots, provide resources to quit smoking and sponsor educational initiatives about the dangers of smoking and the importance of wearing seat belts.

Public Health Thank You Day gives you the chance to honor their outstanding work. Please join Research!America and other public health organizations on November 19, the Monday before Thanksgiving, in recognizing public health heroes around the country. To learn more, visit www.researchamerica.org/ph_thank_you or like our Facebook page at www.facebook.com/PHTD1.

Medical Progress Suffers if the U.S. Loses Innovation Leadership

| Strongly agree | 23% |
| Somewhat agree | 37% |
| Somewhat disagree | 22% |
| Strongly disagree | 7% |
| Not sure | 11% |

“Medical progress will slip in the U.S. if another country takes the lead in science, technology and medical innovation.”

Source: A Research!America Poll of Likely Voters Conducted in Partnership with JZ Analytics in August 2012.

The Research Advocate 7
We Must Stop Deep Cuts to Medical Research TODAY

Congress is considering major changes in federal policy in order to reduce the deficit, including “sequestration,” which means arbitrary, across-the-board budget cuts to defense and non-defense spending. Sequestration would dramatically reduce funding for medical research and public health functions.

If Congress enacts these cuts without considering the impact on medical research and public health, our nation could easily fall behind other countries and lose valuable time in the battle against Alzheimer’s disease, diabetes, Parkinson’s disease, muscular dystrophy, lupus … you get the picture.

We can’t let that happen. Deficit reduction is important, but arbitrary budget cuts that stifle medical progress are wrong. It’s time to tell Congress: WE NEED CURES, NOT CUTS! Be sure to share this action alert. Americans need to speak up for lifesaving medical research. Time is of the essence!
Where We Are Today and the Future Landscape

Biomedical and health R&D spending (all sources) declined by more than $4 billion or 3% in FY11 — the first drop in overall spending since Research!America began keeping track in 2002. While most of that decrease reflects the end of American Recovery and Reinvestment Act (ARRA) funding, which allocated $10.4 billion to the National Institutes of Health (NIH) over two fiscal years (2009-2010), federal funding declined beyond the drop attributable to ARRA. This decline in federal funding, which follows several years of lost purchasing power, is compromising our nation’s ability to capitalize on unprecedented scientific opportunity. It comes at a time when other nations are ramping up their own investments in research to fuel economic growth and global competitiveness.

In 2011, federal policy makers passed the Budget Control Act (BCA), which established a decade’s worth of stringent caps on annual discretionary funding. These caps could result in flat funding or cuts to every category of federally funded biomedical and health research. The BCA also set the stage for dramatic, across-the-board budget cuts, or sequestration. Unless policy makers act to prevent them, these cuts will take effect on January 2, 2013, reducing federal biomedical and health research funding by 8%-10%.

Sequestration is just one of a confluence of statutory issues collectively known as the “fiscal cliff.” The fiscal cliff poses a great threat to our nation’s biomedical and health research capacity. To disable the various fiscal landmines comprising the fiscal cliff, discretionary funding cuts, entitlement reform and tax reform are under consideration. If a solution is pursued without regard to the impact on biomedical and health R&D, policy makers could all too easily undermine federal funding as well as incentives for private-sector investment and charitable giving.

Continued on Page 2
White House Office of Management and Budget has estimated that the NIH alone could lose $2.53 billion in funding in FY13. Despite inflationary pressure and the economic recession, industry has continually increased investments in R&D. Overall, industry investment increased 1.4% for a total of $77.6 billion in 2011. This estimate is based on the most recent data available for medical devices and biotechnology (2010) and pharmaceutical (2011) spending. The pharmaceutical industry increased its investment to $38.5 billion, a 3% increase from the previous year. In contrast, biotechnology investment declined by nearly $800 million, or 3%. The medical device and technology sector significantly increased investment in research by 7.4%, totaling $9.8 billion.

Currently, more than 80% of R&D among PhRMA member companies is conducted in the United States, but it is noteworthy that R&D spending abroad has more than doubled over the past decade. Domestic pharmaceutical R&D is a boon for our nation, but it may not last long if federal funding for the research that fosters private-sector innovation declines and a deficit-reduction policy environment thwarts medical innovation. Companies will locate their R&D close to the very best academic science; if our nation’s investment in basic research spirals downward as that of other nations accelerates, we will effectively prop business and jobs overseas. Cuts in federal funding will threaten our nation’s world-class research institutions, which produce the human capital and knowledge that is key for attracting innovative businesses and industries to the U.S.

Aside from federal and industry investment, other institutions spent $19.1 billion on health research, an increase of about 5% from FY10. As the largest share of that amount, universities increased spending of institutional funds for research to $11.9 billion in 2010 — a 6% increase. Philanthropic foundation spending decreased slightly, while voluntary health groups increased investment in research by 15%, or $131 million, from the prior year.

Health Care Spending

As federal investment in medical R&D declined, overall health care spending continued to rise. Between 2010 and 2011, total health care spending increased from $2.6 trillion to $2.7 trillion, a 4% increase. Currently, biomedical and health research is a diminutive portion of total health spending (health care spending plus biomedical and health R&D), accounting for less than 5% of overall spending. Studies have shown that investing in biomedical and health research can help control the cost of health care, which now accounts for nearly 18% of U.S. GDP and 21% of all federal spending.

Federal Biomedical and Health Research Funding Projections

As described above, the biomedical and health research investment landscape in the United States is dismal and could worsen in 2013 and over the next decade. The American Association for the Advancement of Science (AAAS) projects that, for example, over the first 5 years of sequestration (the years for which standard inflation estimates are available), the NIH budget would be cut by more than $11 billion, slashing funding to FY05 levels. Other federal health research spending would be cut by the same percentage, a loss of more than $400 million. AAAS also estimated the impact on NIH of another possible scenario in which the cuts to most non-defense federal programs are more than doubled. Under that scenario, the NIH budget would be cut by more than $26 billion or 17.5%. Contrast these budget scenarios with China, which has identified biotechnology as one of seven “strategic and emerging (SEI) pillar” industries and has pledged to invest $308.5 billion in biotechnology during the next 5 years. And not only China, but several other nations — including South Korea, Taiwan, Singapore and Sweden — are aggressively building their research infrastructure, recruiting top researchers from the U.S. and from U.S. industry as well.

Conclusion

Federal policy makers must make tough budget choices to bring the federal deficit under control; however, divesting from biomedical and health research — and the infrastructure and expertise needed to conduct it — would contravene the very goal it is intended to advance. Biomedical and health research is one of the fundamental underpinnings of our economy. It is a catalyst that creates businesses large and small and generates jobs in research, manufacturing, distribution, export, health care and a host of other business sectors. Those businesses and jobs supply federal revenues needed to reduce the deficit and power our economy to grow again as it has in the past — a formula that competing nations now use to fuel their own economic growth. Research is our best weapon against diseases that breed suffering and fuel runaway federal health spending, one of the most intractable factors contributing to the deficit. This investment report demonstrates that health research is a major force in our nation; its fate and that of America and Americans are interwoven. The budget and policy decisions policy makers make today will have a profound effect on our nation’s path forward.
Total: Estimated U.S. Health Research Expenditures..............136,245

Pharmaceutical (Research and Development, estimate 2011) ..............................................38,530
Biotechnology (Research and Development, 2010) ..............................................................29,250
Medical Technology (Research and Development, 2010) .......................................................9,800

Subtotal: Industry ..........................................................................................77,580

National Institutes of Health (includes AHRQ) .................................................................29,831
National Science Foundation (Biological Sciences, Bioengineering, Chemistry, Math, Physics, Behavioral Sciences, Computer and Information Science and Engineering, and Polar Health) 2,358
Department of Defense (Medical Research, Chemical and Biological Defense) 2,346
Department of Energy (Biological and Environmental Research, Advanced Scientific Computing Research) 1,005
Department of Agriculture (Agricultural Research Service, National Institute of Food and Agriculture, Economic Research Service) 998
Department of Veterans Affairs (Medical and Prosthetic Research) 580
Environmental Protection Agency (Clean Air, Clean Water, Health and Human Ecosystems, Pesticides and Toxics) 582
National Institute of Standards and Technology 532
Centers for Disease Control and Prevention (Disease Control, Research and Training) 457
Food and Drug Administration (salaries and expenses) 254
Department of Homeland Security (Chemical and Biological) 207
U.S. Agency for International Development (targeted health issue research) 158
NASA (Human Research Program) 155
Administration for Children and Families (children’s research) 41
Centers for Medicare and Medicaid Services (research, demonstration and evaluation) 36
Health Resources and Services Administration (health resources and services) 12

Subtotal: Federal Government ........................................................................39,552

Universities (Institutional Funds) (2010) .................................................................11,897
State and Local Government (2010) .....................................................................3,854
Independent Research Institutes (Institutional Funds) ..............................................1,285
Philanthropic Foundations (2010) ..........................................................................1,069
Voluntary Health Associations .............................................................................1,008

Subtotal: Other ................................................................................................19,113

Total U.S. Health Care Spending ........................................................................2,708,400
Total U.S. Biomedical and Health R&D Spending ..................................................136,245
Total U.S. Health Spending (health care spending + biomedical and health R&D spending) ...2,844,645
Biomedical and Health R&D as a Percentage of Total U.S. Health Spending ..........4.79%

Compiled by: Max Bronstein, Research!America (9/2012)
Method and Rationale

The estimate of the U.S. investment in health research was determined by compiling annual expenditures for all domestic health-related research. This analysis includes fields and disciplines that contribute to improved human health.

Biotechnology research expenditures were estimated using the difference between total life sciences R&D spending (2011), less pharmaceutical (2011) and medical device R&D spending (2010) as reported by Battelle, PhRMA, and Ernst and Young respectively.

Figures for the U.S. Agency for International Development (USAID), Centers for Medicaid and Medicare (CMS), Health Resources Services Administration (HRSA), and the Administration for Children and Families were obtained from agency budget reports to Congress.

The Department of Agriculture estimate includes intramural and extramural research funded by the Agricultural Research Services, the National Institute of Food and Agriculture, and Economic Research Service. Research was determined to be health-related based on the research objectives of each agency.

The National Institute of Standards and Technology (NIST) estimate includes research spending on chemical science and technology, physics, materials science and engineering, information technology, electronics and electrical engineering, Center for Nanoscale Science and Technology, and technology services.

University institutional funds are figures reported by the National Science Foundation (NSF) as part of the Survey of Research and Development Expenditures at Universities and Colleges for FY10. Institutional funds may include endowment income, tuition or gifts/donations. Figures for institutional funds of independent research institutes were provided by the Association of Independent Research Institutes (AIRI).

R&D investment by voluntary health organizations was calculated using the annual reports of 61 of the largest research grant-making organizations.

Research!America produces this investment report annually to assist policy makers and stakeholders in analyzing budget and policy options in order to make the healthiest possible decisions for our nation. This is the ninth annual Investment in Research report. Previous reports are available online at www.researchamerica.org/research_investment.

Sources and Acknowledgements

Budget Table Sources

- Research!America survey of annual reports of voluntary health associations (Voluntary Health Associations)

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