



Sequestration: the devastating impact on global health research and development

US global health research for new tools to save lives is at grave risk

US government support for global health research and development (R&D) is an effective investment that saves lives around the world, demonstrates US scientific prowess and leadership, and reaps economic benefits at home. Budget sequestration will unfairly target global health R&D programs that are effective, save lives, and create jobs. Indiscriminate budget cuts are the wrong way to reduce the nation's debt, especially when the impact would set back innovation and devastate global public health.

For many neglected diseases, adequate drugs, vaccines, and diagnostics simply do not exist. Infectious diseases still claim the lives of millions each year, and emerging challenges such as drug and insecticide resistance pose a threat to health across the globe. New vaccines, drugs, tests, and other health tools are desperately needed, and progress cannot be made without a sustained investment in R&D.

- **The US government was involved in the development of 24 out of the 45 new global health technologies** rolled out in the last decade—more than 53 percent.

- **Funding for global health R&D represents a tiny 0.01 percent of US gross domestic product.** Cutting these programs would do little to help with debt reduction.

- **Global health R&D benefits the US economy and creates thousands of jobs.** 64 cents of every dollar the US invests in global health research goes directly to US researchers.

- **Global health technologies have an immense public health and humanitarian impact.** For instance, after the MenAfriVac[®] meningitis A vaccine was rolled out in Burkina Faso, Mali, and Niger in 2010, cases in these communities went from tens of thousands to zero in one year. The vaccine is also projected to save more than \$570 million in health care costs over the next decade. The US government was heavily involved—across several agencies—in the development of MenAfriVac[®].

Agencies that fund global health R&D will see their budgets slashed

The National Institutes of Health (NIH), the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), the US Agency for International Development (USAID), and the Department of Defense (DoD) all play an essential role in global health R&D, and all stand to see drastic impacts from sequestration. Some government estimates predict that global health R&D programs at these agencies will see reductions of 5 to 7.8 percent under sequestration.

"This is not a spigot we turn off and then just turn it back on again blithely a year later." – NIH Director Francis Collins

Sequestration would hurt US global health researchers

Several thousand research jobs could be lost at NIH and CDC, including global health research positions. Some estimates predict that the NIH will lose more than \$1.5 billion as a result of the sequester, which would slash budgets for all NIH programs, including global health research.

CDC global health programs are likely to be reduced by cutting 5 percent from its HIV/AIDS program and then cutting 5 percent from the remainder of the account. Discretionary spending for DoD programs would be subject to a 7.8 percent reduction, which would include any global health research embedded in DoD programs.



Sequestration will result in widespread cuts to federal global health research programs, when breakthroughs are within reach. Photo credit: PATH

Streamlined and efficient review and regulation of global health technologies are key to their success. If sequestration occurs, the FDA is expected to lose \$206 million from its base budget, as well as \$112 million from user fees. Just recently, the FDA approved a new drug to treat drug-resistant tuberculosis (TB)—the first in 40 years.

Cutting foreign aid will not solve the debt crisis and will harm global health research

US foreign assistance programs—alongside other partners—contribute funding to fill a critical gap in late-stage research that would otherwise not be addressed by the private sector and other actors.

R&D is a key component of the US government's global health strategy. R&D programs for TB, HIV, malaria, as well as innovative, successful endeavors—such as USAID's new Center for Accelerating Innovation and Impact and the Saving Lives at Birth program—are at serious risk due to possible funding cuts. Even small reductions in funding could eliminate essential seed funding for new global health tools and slow or halt the progress made against global health diseases.

Under sequestration, global health programs at the State Department and USAID would see an

estimated cut of more than \$400 million. This will surely have a devastating impact on the development of new global health products which are funded through these accounts.

For instance, reductions in funding for late stage research into multipurpose prevention technologies and microbicides, when breakthroughs could be just months away, would risk delays in these essential products reaching people in desperate need of new tools to protect themselves and their families.

Slashing funding now will interrupt scientific progress and leave us without the urgent tools we need to address health needs now and in the future

Global public health science is now at a critical juncture, with 365 new global health products in the research pipeline as of April 2012. The US government supports R&D efforts for 200 of these promising new tools.

Many biomedical studies cannot survive cuts in funding in the middle of their work. It would be an irreversible mistake to halt these ongoing global health research efforts. Halting funding would mean that the world may never benefit from these tools that are so close to development and delivery.

In the next five years, researchers are expecting groundbreaking new technologies. The potential impact of this research is enormous:

- At current rates of HIV infection, a vaccine with just 50 percent efficacy, given to 30 percent of the population in low- and middle-income countries, would avert 5.2 million new infections over the first decade.
- A new shortened treatment course for TB could reduce transmission by 10 percent by 2050, preventing 8 million infections and 2 million deaths in Southeast Asia alone.
- A malaria vaccine would make a significant dent in the number of children who suffer from malaria. A recent study showed that infants who received the RTS,S vaccine candidate had one-third fewer cases of both clinical and severe malaria.