# Health Research and Development

#### WHAT YOU SHOULD KNOW

Innovation is at the heart of progress in global health - today's essential commodities, like anti-retroviral treatments and insecticide-treated bed nets, were yesterday's Research and Development (R&D) projects. R&D to advance new vaccines, diagnostics, drugs, microbicides, and devices for neglected diseases and conditions has accelerated gains in global health over the past decade, saving millions of lives at home and abroad.

Despite tremendous need for new global health technologies, R&D is often neglected by private-sector product developers because there is little prospect for return on investment. U.S. government investment in global health R&D is critical to advancing the development of tools and technologies that lack a robust commercial market to incentivize their development.

There remains significant need for global health research to deliver new and improved tools to combat long-standing and emerging threats. Millions of people around the world are still threatened by HIV/AIDS, tuberculosis (TB), malaria, and other neglected diseases and health conditions, and emerging infectious diseases – like Ebola and Zika – will continue to be global health threats.

**R&D investments today are a down payment on the innovations of tomorrow.** Global health R&D takes significant time and resources, and sustained investment with long-term vision is critical so that the most effective health solutions are available when we need them.

The United States must continue its leadership in health innovation and research by sustaining funding for research programs and supporting a policy environment conducive to discovering and developing the next innovations in global health technologies.

## RECOMMENDATIONS FOR CONGRESS

Sustain and - where possible - increase funding for global health research and product development. Policymakers must ensure future federal budgets prioritize a commitment to global health research and innovation, with robust funding across the U.S. government for R&D programs.

Where they have discretion, U.S. agencies and programs engaged in global health should set a percentage of disease- or health-related budgets to be directed to R&D. Agencies – including the Centers for Disease Control and Prevention (CDC), Department of Defense (DoD), Food & Drug Administration (FDA), National Institutes for Health (NIH), and the U.S. Agency for International Development (USAID) – must prioritize funding for developing global health technologies within existing programs and activities.

## Establish a whole-of-government, coordinated global health R&D strategy.

The U.S. government should create an overarching strategy to define how agencies work together, set government-wide priorities, leverage funding and expertise, fill gaps in the product development pipeline, and facilitate effective partnerships and transfers of research within government. It should also support a portfolio approach to investment in global health R&D to ensure data is guiding decision making and funds can be transferred as need.

Support a portfolio of incentives and financing mechanisms to stimulate needed R&D at all stages of the product development process. Targeted and strategic incentive mechanisms, like prizes, advanced market commitments, and tax credits, could help incentivize greater private sector engagement in R&D for neglected diseases and conditions and bridge the divide between need and availability.

Support the capacity of local innovators to meet the health needs of their own countries through the development of high-value, affordable technologies.

Through new partnerships, leveraged funding, and tailorable technical assistance, the U.S. can support local innovators to navigate R&D barriers and turn good ideas into lifesaving technologies. Local innovation is key to developing products that are affordable, accessible, and locally appropriate, and it also builds sustainable pathways to create jobs, economic stability, and health systems after countries graduate from traditional aid.



## WHY THIS INVESTMENT IS IMPORTANT

64 100

Sixty-four cents of every U.S. dollar invested in global health R&D benefits U.S.-based researchers.

While we have made tremendous gains in global health over the past 15 years, millions of people around the world are still threatened by AIDS, tuberculosis (TB), malaria, and other neglected diseases and health conditions. In 2104, TB killed 1.5 million people, surpassing deaths from HIV/AIDS.² Sub-Saharan Africa saw 1.4 million new HIV infections.³ Half of the global population remains at risk for malaria, and drug-resistant strains are growing.⁴ Maternal mortality is 14 times greater in underresourced regions than developed countries.⁵ One out of every 12 children in sub-Saharan Africa dies before the age of 5,6 often from vaccine-preventable and other communicable diseases. These figures highlight the tremendous global health challenges that still remain and the need for sustained investment in global health research to deliver new tools to combat endemic and emerging threats.

In addition to addressing unmet global health needs, new tools and technologies are critical to address challenges of drug resistance; outdated and toxic treatments; and difficulties administering current health technologies in poor, remote, and unstable settings. As seen with recent outbreaks of Ebola and Zika, we simply do not have the tools needed to prevent, diagnose, and treat many neglected diseases. It is critical to invest in the development of next-generation tools to fight existing and emerging disease threats and have tools ready-to-go when we need them.

Investments in global health R&D also yield benefits beyond humanitarian and development goals. The spread of infectious diseases like Chagas, dengue fever, chikungunya, and Zika virus throughout the Americas remind us that in an interconnected world, Americans are not immune to health crises that have historically impacted only other geographies. R&D for new tools to address global diseases benefits both global health security and the well-being of American citizens living at home and abroad. In addition, global health R&D is a smart economic investment in the United States, where it drives job creation, spurs business activity, and engages academic institutions. Sixty-four cents of every U.S. dollar invested in global health R&D benefits U.S.-based researchers, many of whom conduct their research at U.S. universities.<sup>7</sup>

#### Resources

Global Health Technologies Coalition www.ghtcoalition.org PATH - Driving Innovation to Save Lives http://bit.ly/2fD9cJY

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#### Citations

- 1. "Achieving a Bold Vision for Global Health: Policy Solutions to Advance Global Health R&D." http://bit.ly/2ht644C
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- 3. "The Millennium Development Goals Report 2015." http://bit.ly/2gTweyg
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- 6. "The Millennium Development Goals Report 2015."
- $7. \hspace{0.5cm} \hbox{``Saving lives and creating impact: Why investing in global health research works.'' $$http://bit.ly/2gTzRnW$$}$