

COVID-19 Innovations for Global Needs

Urgent need for supplemental funding for USAID and CEPI

The challenge

Innovation is our exist strategy from COVID-19—but only if everyone, everywhere can benefit. While the introduction of new vaccines and other tools may quell the acute crisis here in the United States by year’s end, many of these first-to-market tools are not appropriate or feasible to deploy in the world’s poorest places where barriers like lack of reliable electricity and health infrastructure can necessitate different types of tools.

Since we won’t defeat COVID-19 anywhere until we defeat it everywhere, this will hamper efforts to end the pandemic—unless we take action to advance health tools tailored for low-resource settings. To support this aim, GHTC recommends Congress provide supplemental funding for the US Agency for International Development (USAID) and Coalition for Epidemic Preparedness Innovations (CEPI) in the next COVID-19 relief bill.

4 “A”s to innovate for global access

	AFFORDABILITY Will the product be available at a price low- and middle-income countries can afford?
	ADMINISTRATION How challenging is it to administer and what training is required of health workers?
	ADAPTABILITY Is it usable in settings without basic infrastructure, electricity, and equipment?
	AVAILABILITY Can manufacturing and distribution mechanisms meet global need?

High-priority innovation needs for low-resource settings	
 DIAGNOSTICS	Low-cost, rapid point-of-care antigen tests requiring minimal training and lab equipment; home-based self-tests; validation of tests to ensure they detect new variants rapidly emerging in many countries around the globe
 THERAPEUTICS	Inexpensive drugs that are heat-stable and easy to administer; second-generation monoclonal antibody therapies that are lower volume with doses that can be delivered via shot instead of IV
 VACCINES	Vaccines that are heat-stable or require less intense cold chains; single-dose vaccines; formulations that can be taken orally, as an inhalable, or through a skin patch; vaccines that are effective against emerging variants
 DEVICES & TOOLS	Low-cost oxygen delivery devices; low-cost infusion pumps to deliver IV liquids without electricity; reusable PPE and open-source designs to enable low-cost local manufacturing; glass vaccine vial alternatives to ease shortages; cold storage solutions
 MANUFACTURING & DELIVERY	Manufacturing innovations to increase production volume and reduce costs; capacity-strengthening investments in low-income nations; system and data innovations to facilitate delivery of critical products and tools where they are most needed

Policy recommendations

\$200 million for Global Health Programs at USAID to advance COVID-19 innovations

USAID partners stand ready to adapt and deploy suitable technologies to fight COVID-19 globally if sufficient funding is allocated. USAID’s deep international footprint, combined with its in-depth understanding of community needs, enables the agency to develop new health tools designed to meet the unique challenges of low-resource settings.

In previous global health crises like the West African Ebola epidemic and the Zika epidemic, USAID helped crowdsource and advance to market innovative tools to fight these threats via its Grand Challenges programs, and it is poised to do so again in the face of COVID-19—if Congress provides the resources. In March 2020, USAID issued a request for information for proposals for low-cost, scalable innovations that could support the international COVID-19 response, including new products and service delivery approaches. It received hundreds of proposals for potentially game-changing innovations, but funding is urgently needed to advance and scale them.

Impact-ready innovations to fight COVID-19 from USAID Grand Challenge partners



DripAssist

A low-cost tool—developed by Ebola Grand Challenge winner Shift Labs—that manages the flow rate of IV treatments with a simple gravity system, replacing the need for expensive, difficult-to-use infusion pumps. It is one-tenth the cost of a traditional pump and runs on a single AA battery.



Low-cost COVID-19 diagnostic

A simple-to-use, rapid point-of-care COVID-19 test designed for low-resource settings—developed by Saving Lives at Birth innovator Rice University—that offers results in 30 minutes or less, using a platform that is expected to cost less than \$5,000 per instrument and less than \$2 per test.

\$300 million for CEPI to advance vaccines for COVID-19 and prepare for future threats

About CEPI

8

COVID-19 candidates in clinical development

\$2.1b

Projected funding needs for COVID-19 R&D

29

Contributing nations & regional unions

CEPI is a global co-funded effort to develop vaccines for emerging infectious diseases. It is working to advance COVID-19 vaccines from early-stage development through manufacturing and approval with a focus on maximizing global access. By investing in CEPI, the US government can leverage funding from other global funders to support promising vaccine candidates, while not bearing the full cost of development. Of the eight candidates CEPI is now supporting in clinical trials, four are not part of Operation Warp Speed’s current portfolio, so a CEPI contribution is a complementary investment that will increase the likelihood of bringing additional successful vaccines to market that could benefit individuals domestically and globally.