

A young child with a joyful expression, wearing a blue and white checkered shirt with a blue backpack, is the central focus of the image. The background is a blurred classroom with other children and wooden desks.

CENTER FOR ACCELERATING  
INNOVATION AND IMPACT  
USAID | GLOBAL HEALTH

2017 IMPACT BRIEF



“ I believe innovation is the most powerful force for change in the world. People who are pessimistic about the future tend to extrapolate from the present in a straight line. But innovation fundamentally shifts the trajectory of development.

—Bill Gates

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## OUR MISSION

The global health community is filled with promising ideas for saving lives in the poorest regions of the world. Whether an idea lives up to its promise depends not only on its brilliance, but also on whether it can be introduced quickly and delivered at scale. The process of introducing and “scaling up” global health innovation can be complex, lengthy, and resource intensive. As a result, innovation often takes years, sometimes decades, to reach the people who need it most.

To overcome these challenges, the U.S. Agency for International Development (USAID) Global Health Bureau established the Center for Accelerating Innovation and Impact (CII) to encourage these business-minded approaches and accelerate impact against some of the world’s most important health issues. **The Center invests seed capital in the most promising ideas and applies a rigorous, market-oriented approach to cut the time it takes to transform discoveries in the lab to impact on the ground.**

## WHAT WE DO



### 1. IDENTIFY CUTTING-EDGE PRACTICES

To help improve the efficiency of the marketplace, the Center examines successes and failures across a range of markets and sectors to identify state-of-the-art practices in innovation, introduction, and uptake.



### 2. CATALYZE INNOVATION

The Center uses a variety of novel approaches—from *Grand Challenges* to hackathons to prizes—to source groundbreaking solutions for tough and seemingly intractable health challenges.



### 3. SCALE FOR IMPACT

The Center supports introduction and scale-up planning for priority health interventions; uses innovative financing mechanisms; applies market shaping tools to address inefficiencies and barriers; and leverages the expertise and active engagement of the private sector—all to accelerate and rapidly expand health impact.

## HOW WE WORK

At CII, we strive to be thinkers and doers. We are constantly evaluating what works and applying these forward-looking practices to USAID's health investments. None of our work is done in isolation. Our team, which brings to the table deep business expertise from the pharmaceutical and medical technology industries and management consulting, complements the rich public health and technical knowledge resident throughout the Global Health Bureau. Together, we work side-by-side to drive toward health impact for the Bureau's most pressing priorities.



SHIFT LAB'S DRIP ASSIST  
PHOTO: AVERY WAITE

## HIGHLIGHTS OF OUR WORK



### FIGHTING EBOLA

During the 2014 Ebola outbreak, proper hydration was critical for keeping patients alive. Infusion pumps are commonly used for this purpose, but they are large, expensive and require electricity. Most health care workers in West African Ebola treatment centers were using gravity-drip bags, counting IV fluids drop by drop to ensure patients received the right dose at the right rate. In response to the Ebola Grand Challenge to design low-cost solutions for aid health workers, Shift Labs in Seattle developed a compact device, DripAssist, that monitors fluid flow for a fraction of the cost of hospital pumps. Health care workers have praised DripAssist as a game-changing solution. It has received approval by the Food and Drug Administration (FDA) and is ready for use during another outbreak.



### SAVING LIVES AT BIRTH

The leading cause of death for mothers in the poorest parts of the world is postpartum hemorrhage (PPH). While the gold standard therapy for management of PPH is an oxytocin injection, the drug degrades in hot climates unless refrigerated and can only be administered by trained personnel. With funding from Saving Lives at Birth, Monash University in Melbourne is developing a heat stable, simple-to-use, dry powder oxytocin inhaler that is safe and works as well as current practice. The product has been licensed to GlaxoSmithKline to co-develop, register, and distribute in regions with high rates of maternal mortality. Once available, inhaled oxytocin has the potential to save about 20,000 more lives a year than the current formulation.



## COMBATING ZIKA

*Aedes aegypti* mosquitoes—those that transmit most of the arboviral infections that the world is least prepared to combat—are largely non-responsive to insecticide treated nets and sprays. To prevent infection, people need to consistently re-apply repellent, a practice that few regularly follow. Ifakara Research Institute in Tanzania has developed a unique way of providing protection for up to six months: insecticide-treated sandals. The sandals cost as little as 50 cents and release highly effective, wide-area spatial repellents. This creates round-the-clock protection against day- and night-biting mosquitoes that transmit not only Zika, but also Dengue, Chikungunya and Malaria.



## STRENGTHENING COMMUNITY HEALTH LEADERSHIP SKILLS

Ministries of Health (MOHs) in the developing world play a critical role in promoting good health, reducing illness and ensuring that people have access to quality and affordable health care. While most have strong technical skills, many lack managerial, financial, or strategic proficiency. Aspen Management Partnership for Health (AMP Health)—a multi-stakeholder collaboration—understands that good management is essential for driving systemic change. AMP Health and its network provide a range of support to MOHs to strengthen management and leadership capacity, which includes collaborating with local and global experts and sharing cross-sector perspectives and addressing their community health system challenges.



## ACCELERATING SCALE

Antiretroviral therapy (ART) has transformed HIV from a fatal illness to one that can be managed with a single daily tablet. Accelerating access to ART will have life-changing benefits for millions of people, and the global community is striving to double the number of people receiving treatment by 2030. We have an opportunity to help achieve these goals with new antiretroviral drugs that are cheaper, better tolerated, and have a higher resistance barrier. In partnership with PEPFAR and the Office of HIV/AIDS through project OPTIMIZE, CII is helping establish a unique, multi-sector consortium aimed at rapidly improving HIV treatment outcomes by optimizing drugs and formulations and accelerating their introduction in low- and middle-income countries.

“ The IDEA to IMPACT series is an essential set of tools for global health innovators and entrepreneurs. It has certainly been a valuable resource for us—both to inform our ongoing product development and launch work and as a way to share what we’re learning on the ground.

—Beth Kolko, Founder and CEO, Shift Labs

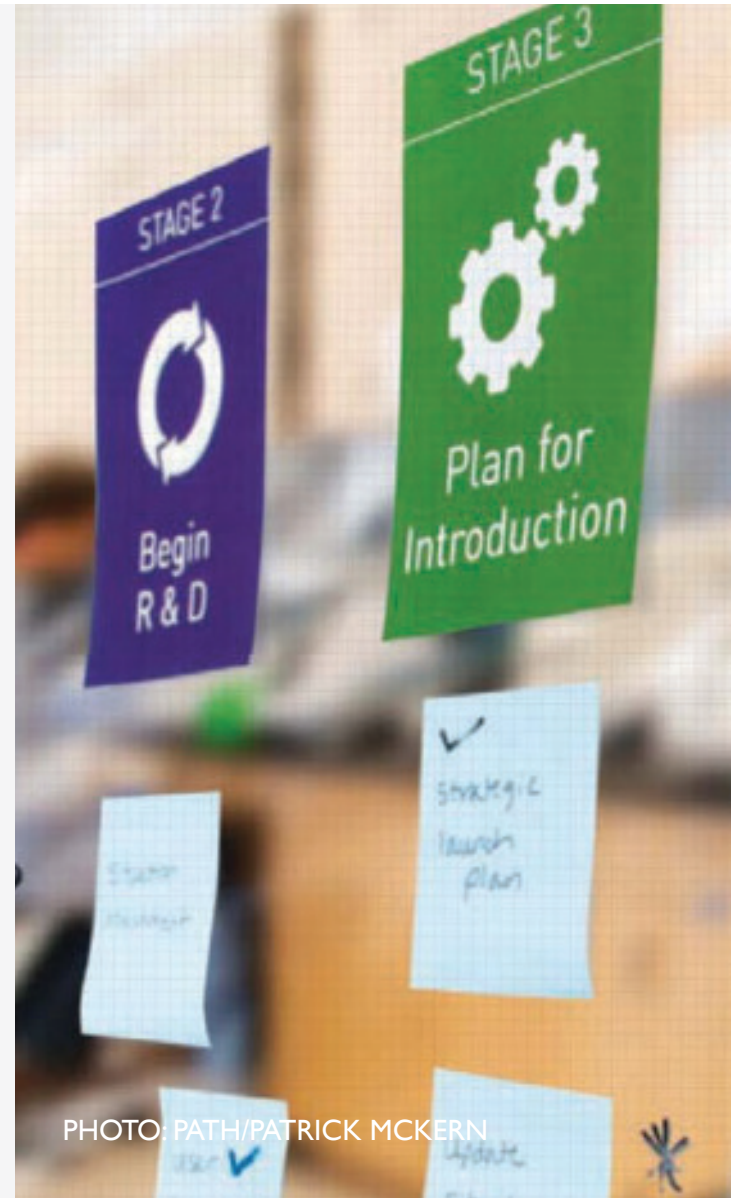


PHOTO: PATH/PATRICK MCKERN





# IDENTIFY CUTTING-EDGE PRACTICES

CII was founded not only to catalyze new global health innovations but also to leverage opportunities and address roadblocks to rapidly develop and scale them for impact. To do so, we identify and apply cutting-edge practices to our work and share these best practices with the broader global health community. By engaging luminaries in the public, private, and academic sectors, we amplify our expertise to accelerate product innovation, introduction, and uptake.

Broad dissemination of these practices is integral to achieve collective global health goals. To ensure we are applying cutting-edge practices to our own work at CII, and also disseminating these shared learnings, we have created a series of practical guides and actionable tools. These publicly available resources have benefited from input and feedback from donors, implementing partners, innovators, ministries of health, and pharmaceutical and medical device companies. They bring clarity to the delivery planning process and address barriers to adoption that often prevent innovative technologies from reaching those most in need.



## UNIQUE TOOLS AND RESOURCES

# IDEA TO IMPACT

The IDEA to IMPACT series shares guidance for scaling global health innovations to help practitioners accelerate impact through better coordination and earlier planning. Through case studies and tools, this series outlines delivery-focused, priority activities at each stage of the product development process, provides a framework and tools to support business model design and partnership evaluation, and supports country-level planning for launch.



## PLAN FROM THE START

**Idea to Impact** identifies priority activities and provides project management oversight across four stages of product development to help practitioners think through, plan, and execute delivery-related activities.



## CHOOSE A PATH

**Pathways to Scale** provides organizational guidance for innovators in selecting the most relevant business model and partnership options to be best positioned to scale.



## LAUNCH IN COUNTRY

**Ready, Set, Launch** supports practitioners in selecting initial launch country or countries and creating a comprehensive strategy and operational launch plan to achieve scale.

## FINANCING FRAMEWORK

Our **Financing Framework** is a roadmap and toolkit for sustainably financing USAID's maternal and child survival goals by 2035. The framework considers how and when identified 'symptoms' within the health ecosystem may be evidence of an underlying financing issue, and reveals the solutions and tools that can be utilized to address them and support sustainability.

## MARKET SHAPING PRIMER

**The Market Shaping Primer** presents a five-step framework for how USAID and other donors can increase the efficiency of markets to maximize access to critical health commodities. By taking inventory of successful market shaping interventions, the Primer offers an approach for tracing market shortcomings to their root causes and designing interventions that can accelerate access, enhance market stability, increase availability, and improve donor value for money.

## HUMAN-CENTERED DESIGN

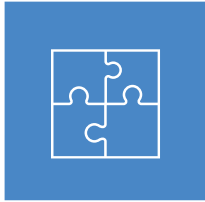
**Human-centered design (HCD)** is a way of thinking that places the people you're trying to serve at the center of the design and implementation process. CII is using HCD across our work by actively engaging beneficiaries, providers, and other constituencies throughout the development process to ensure that their needs and expectations inform design decisions and lead to a higher likelihood of adoption and lasting human impact.

## CATALYZE INNOVATION

The pace of progress in global health is determined by our ability to seed, nurture and spread innovation. The global health community set ambitious goals—from ending preventable child and maternal deaths to achieving an AIDS-free generation to protecting communities from infectious diseases. By catalyzing innovation—sourcing and supporting the development, introduction, and scale up of breakthrough innovations that use cutting-edge technology—we ensure that we can achieve them.

CII is bringing innovation to the forefront of how the government works and operates by sourcing global game-changers. Through Grand Challenge programs, hackathons and other forms of open innovation, innovators around the world are tackling global health challenges head on, thinking of innovative, creative, and multi-disciplinary ways to address age-old challenges in health.





## GRAND CHALLENGES

Grand Challenges call on the brightest minds across the globe to share their bold ideas. In 2011, the Global Health Bureau launched USAID's first Grand Challenge for Development, Saving Lives at Birth to solicit groundbreaking solutions to save the lives of mothers and babies around the time of birth. With the support of multiple partners, the program has become a flagship Grand Challenge for the agency, yielding a rich and diverse pipeline of solutions that are already beginning to scale. Building on this model, CII established two more Grand Challenges over the last two years—*Fighting Ebola* and *Combating Zika and Future Threats*.

These Grand Challenges demonstrate the power of open innovation—revolutionary ideas can come from anyone and anywhere, including from an Argentinian car mechanic who invented the first device for obstructed labor in decades. Innovative solutions also often come from combining unlike minds with a mix of talents and skills, like a dressmaker from Baltimore who joined forces with a team of biomedical engineers from Johns Hopkins University to develop new protective gear for health workers treating Ebola-infected patients. Through Grand Challenges, USAID and its partners have cultivated a pipeline of nearly 150 innovations that are poised to deliver significant health impact.

**IDEAS SUBMITTED**

Nearly  
**6000**

**FUNDED**

**150**  
Innovations

**TOTAL FUNDING**

~  
**\$140M**

**TESTING IN**

**33+**  
Countries

## ■ Saving Lives at Birth

Every two minutes, a woman dies in childbirth. The onset of labor marks the start of a high-risk period for both mother and baby that does not ease until at least 48 hours after birth. Almost all the deaths during this high-risk period occur in low- and middle-income countries.

Saving Lives at Birth calls on the brightest minds across the globe to identify and scale groundbreaking approaches to save the lives of mothers and newborns in poor, hard-to-reach communities around the time of birth. The Saving Lives at Birth partners—USAID, the Government of Norway, the Bill & Melinda Gates Foundation, Grand Challenges Canada, UK's Department for International Development, and the Korea International Cooperation Agency—have committed nearly \$100 million to find innovative tools and approaches to help mothers and newborns during their most vulnerable hours. Innovators have used these investments to leverage at least \$60 million more in funding from donors and investors.

To date, six rounds of global calls for solutions have resulted in a diverse portfolio of 106 innovations from a highly competitive field of more than 3,600 applicants.

### PIPELINE HIGHLIGHTS



#### DEVICES

Rice University is scaling a low-cost bubble Continuous Positive Airway Pressure (bCPAP) system to significantly reduce newborn deaths from respiratory distress in Malawi.



#### NUTRITION

The University of Toronto is developing a technology for adding iron, folic acid and vitamin B12 to iodized salt to greatly reduce nutrient deficiencies contributing to maternal mortality and birth defects in the developing world.



#### DRUGS & DELIVERY

Chlorhexidine is an extremely low-cost, easy-to-use topical antiseptic that has the ability to reduce newborn death from infections by 20%-40%. The work by John Snow International (JSI) in Nepal is seen as a living university of chlorhexidine implementation and aims to be replicated in 25 countries in the next few years.



## DIAGNOSTICS

The Research Institute at Nationwide Children's Hospital and GestVision are developing a low-cost paper-based urine test for early diagnosis of preeclampsia, which is a leading cause of maternal mortality, especially in developing countries.



## APPROACHES & SERVICES

In Rwanda, Partners In Health (PIH) is scaling a health-system capacity-strengthening model called All Babies Count (ABC)—an integrated, low-cost approach that boosts demand for antenatal and delivery services by improving patient satisfaction through patient-centered care.

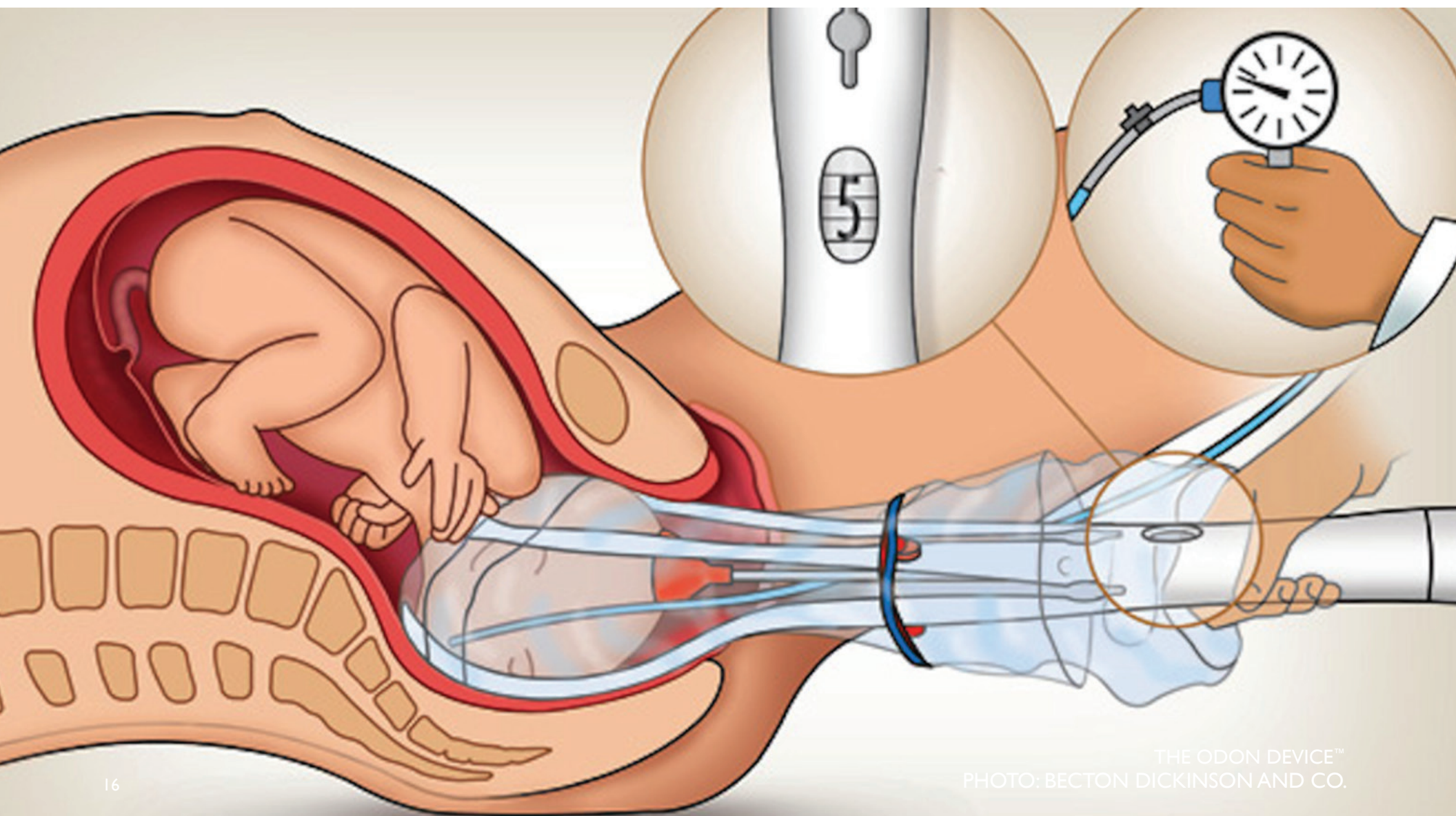
## LEVERAGING NEW RESOURCES

- CII has catalyzed \$100M+ over 10 years
- USAID's \$20M contribution leveraged \$80M in donor funds and an additional \$60M in project funds from other donors and investors

## DRIVING IMPACT

- Already reached 1.5M mothers and newborns
- Saved nearly 10,000 lives
- Formed 9 new partnerships for scale

AUGMENTED INFANT RESUSCITATOR (AIR)  
PHOTO: MBARARA UNIVERSITY



THE ODON DEVICE™  
PHOTO: BECTON DICKINSON AND CO.



## INNOVATION FOR IMPACT EXAMPLE

# THE ODON DEVICE™

The idea came to Jorge Odón as he slept. Overnight, his unconscious made the leap from a YouTube video on extracting a lost cork from a wine bottle to the realization that the same trick could save a baby stuck in the birth canal. Mr. Odón, an Argentine car mechanic, built his first prototype using a glass jar, doll, and handmade fabric sleeve. With support from the World Health Organization and *Saving Lives at Birth*, the Odon Device will be the first innovation for obstructed labor since the vacuum extractor decades ago. Becton, Dickinson, and Company has now licensed the product and will launch the Odon Device™ in more than 50 countries—impacting 10 million births around the world.



MSNBC, 2014  
PHOTO: MATT HIGGINS

## ■ Fighting Ebola

In 2014, the world faced the largest Ebola epidemic ever. In response, USAID issued Fighting Ebola: A Grand Challenge for Development with the White House Office of Science and Technology Policy, the Centers for Disease Control and Prevention, and the U.S. Department of Defense to identify innovations to address barriers faced by healthcare workers in West Africa. International experts reviewed over 1,500 ideas and rapidly selected 14 promising innovations, identified for their potential to reinforce the response to the Ebola outbreak and future epidemics. These solutions address a range of gaps in our response capacity, including increased protection and comfort of healthcare workers, healthcare worker tools, decontaminants, rapidly deployable care settings, behavior change, and information communication technology platforms.

### PIPELINE HIGHLIGHTS



#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

International Personnel Protection partnered with garment manufacturer, Kappler Inc, to design a new Ebola suit for healthcare workers, using unique protective fabric and innovative design, that improves breathability and increases safety during suit removal.



#### HEALTHCARE WORKER TOOLS

Scripps Translational Science Institute partnered with Rhythm Diagnostics to test the STAMPS2 Bluetooth-enabled Wearable Patient Sensor that sticks on like a band-aid and enables the continuous monitoring of patient vital signs from temperature, heart rate, oxygen saturation, and heart rate for up to 10 days.



#### DECONTAMINANTS

Kinnos' product is a colored powder bleach additive that increases the visualization of disinfected regions during the decontamination process. Once bleach has killed Ebola, the color fades to clear, indicating that the surface is safe to touch.



## HEALTHCARE SETTINGS

Baylor College of Medicine developed the Emergency Smart Pod, a lightweight, portable Ebola treatment unit that has features such as waste disposal and decontamination systems.



## INFORMATION COMMUNICATION TECHNOLOGY

IntraHealth adapted and deployed mHero, a two-way SMS platform that enhances existing national health information systems by connecting healthcare workers with the Ministry of Health.



## COMMUNITY ENGAGEMENT

The Africa Stop Ebola Music and Media campaign empowered local artists to engage their communities in the fight against Ebola through song.

## FIGHTING EBOLA IMPACT

Of the 14 innovations funded, 12 have been tested in West Africa, half are in use or available for purchase today, and three others are poised to come to market in months. This pace of development is extraordinarily fast and demonstrates that, while not ideal, it is possible to successfully mobilize the global community to rapidly source, develop, and deploy innovations during an outbreak.

COLORIZED BLEACH FOR EBOLA  
PHOTO: KINNOS



JHU'S NEW EBOLA SUIT  
PHOTO: JHU CBID

## INNOVATION FOR IMPACT EXAMPLE

# AN IMPROVED PROTECTIVE SUIT TO FIGHT EBOLA

Healthcare workers on the front lines of the Ebola epidemic needed a personal protective suit that was more comfortable and functional than existing suits and reduced the risk of contact with the virus. Johns Hopkins University (JHU) rose to the challenge, organizing a hackathon that attracted a group of unlike minds, including students, robotics experts, and a wedding dress designer. The resulting redesign of the suit features a large face shield for better visibility and a rear zipper for easier and safer removal. To help bring the suit to market quickly, CII facilitated a partnership between JHU and DuPont. The team expects the suit to be available by early 2017—four times faster than the company’s normal development timeline.

# ■ Combating Zika and Future Threats

As the threat of Zika grew at an alarming rate in early 2016, it was clear that countries did not have the tools needed to effectively stop its spread. CII mobilized in just one week to launch Combating Zika and Future Threats: A Grand Challenge for Development—calling on the global community to generate cutting-edge approaches to fight the current Zika outbreak and help strengthen the world's ability to prevent, detect, and respond to future infectious disease outbreaks. Within two months, nearly 900 innovators from around the world submitted their ideas. Following a rapid and rigorous review process, the team announced 26 potentially game-changing solutions for accelerated development, testing, and deployment.

## PIPELINE HIGHLIGHTS



### VECTOR CONTROL

Indiana University is creating a new class of natural larvicides that use low-cost and ubiquitous baker's yeast.



### PERSONAL AND HOUSEHOLD PROTECTION

Ifakara Research Institute's low-cost, insecticide-treated sandals provide protection against day-biting and night-biting mosquitoes for up to six months.



### VECTOR SURVEILLANCE

Stanford University is developing a cell phone app that measures wing-beat frequency to distinguish between different mosquito species and potentially identify whether they are carrying disease.



## COMMUNITY ENGAGEMENT

The Mosquito Challenge Community Campaign uses citizen scientists to collect and share mosquito data, which they can then use to develop a local mitigation strategy to reduce the risk of disease in their communities.



## DISEASE SURVEILLANCE

Real Impact Analytics will use telecom data to monitor population movement and related Zika risk flows in near real-time, enabling the identification of new areas susceptible to Zika introduction.



## DIAGNOSTICS

BluSense is developing a one-drop-of-blood quantitative point-of-care diagnostic test for DENV and ZIKV using Blue Ray technology.



## UNMANNED AERIAL VEHICLES

Vayu will work to integrate UAVs into the Madagascar health system for disease surveillance and delivery/pick-up of medical products, samples, and other critical items from last mile facilities.

## COMBATING ZIKA AND FUTURE THREATS IMPACT

The 26 innovations funded include a wide range of platform technologies that not only enable us to more effectively detect and address Zika, but also malaria, dengue, chikungunya and other mosquito-borne diseases that are not yet known threats.



PHOTO: MARVIN RECINOS





## INNOVATION FOR IMPACT EXAMPLE

# WOLBACHIA-INFECTED MOSQUITOES

Wolbachia is a naturally occurring bacterium found in up to 60% of insect species worldwide, but not in *Aedes aegypti*, the carrier of Dengue, Chikungunya, and Zika viruses. Researchers at Monash University discovered that when *Aedes aegypti* are infected with Wolbachia, it significantly reduces their ability to spread diseases such as Dengue and Zika to humans. Unlike insecticides that need to be sprayed repeatedly and consistently, Wolbachia-infected mosquitoes are self-sustaining and only need to be released once. With the support of USAID, the Bill & Melinda Gates Foundation, Wellcome Trust, and local governments, the Eliminate Dengue team will test the large-scale deployment of Wolbachia-infected mosquitoes in Antioquia, Colombia beginning in early 2017.



## INCUBATING NEW IDEAS

Sometimes the best ideas come from collaboration and brainstorming among individuals from different perspectives, sectors, and disciplines. CII has hosted several Idea Incubators to drive deep, solutions-oriented conversations about critical global health issues—whether to inform our understanding of state-of-the-art practices, explore how new technologies align with global health needs, or shape a new program or intervention.

### UNMANNED AERIAL VEHICLE (UAV) INCUBATOR

CII, in partnership with the Bureau's supply chain team and several regional bureaus, convened public and private sector thought leaders to define the highest potential impact global health use cases for UAVs and frame those use cases within likely context, barriers, and greatest opportunities. The highest potential impact use cases identified by the group included vaccine, diagnostic, and 'just in time' blood delivery. Since the incubator session, CII has continued to engage the broader community to form a cohesive vision for UAVs in global health. CII has also made investments in two UAV innovation platforms, one focused on the delivery of diagnostics and vaccines and the other to support a tailored approach to vector control.



## PERSONAL PROTECTIVE EQUIPMENT (PPE) HACKATHON

USAID's Fighting Ebola Grand Challenge included a call for improved protective suits for health care workers. To jumpstart this process, the White House Office of Science and Technology Policy (OSTP) and USAID convened more than 100 engineers, makers, sensor experts, manufacturers and scientists to brainstorm and rapidly-prototype new solutions. By the end of the first day, more than 12 teams had generated potential solutions. The teams spent the next day at a DC design and fabrication space hacking suits and masks to develop initial prototypes. The range of ideas represented the diversity of skills and expertise of participants and served to inspire further innovation.



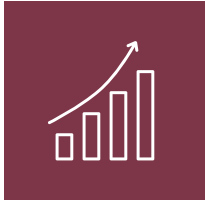
WHITE HOUSE/USAID PPE HACKATHON  
PHOTO: WENDY TAYLOR

## SCALE FOR IMPACT

To accelerate and magnify the impact of priority global health innovations, CII pairs the most successful private sector principles and practices with decades of experience scaling global health innovations. But operating in these markets presents a host of new challenges. Tackling these challenges requires not only good delivery planning but innovation in how we address market inefficiencies. To scale for impact, our approach includes:

- **Planning for introduction and scale**
- **Utilizing innovative financing**
- **Shaping markets**
- **Leveraging the private sector**

Applying all of these approaches—and through hand-in-hand collaboration with Global Health Bureau colleagues across the maternal and child health, HIV/AIDS, family planning, and malaria sectors—CII works to ensure that these life-saving products reach all of those that need them.

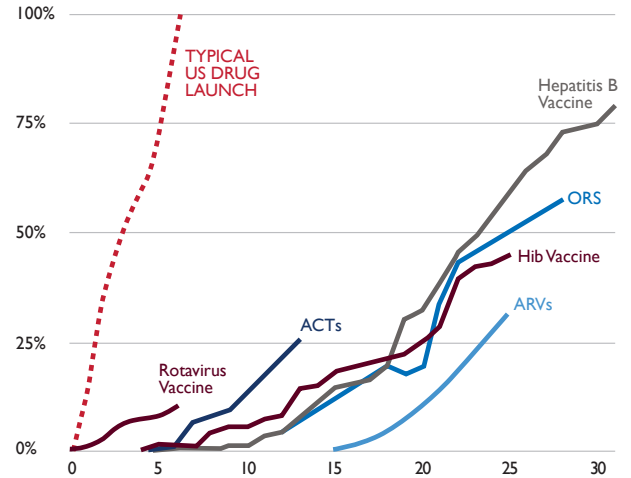


## PLANNING FOR INTRODUCTION AND SCALE

Whether you are introducing new products or scaling proven lifesavers, ensuring that products reach those who need them is crucial for connecting innovation to impact. Introducing and scaling is a complex process that involves evaluating market feasibility, assessing end-user acceptance, developing and executing an operational launch plan, and optimizing the execution of that plan. This process is even more complex because it requires support from many public and private sector contributors. As a result, global health innovations often take decades to reach intended users. In contrast, products launched by pharmaceutical companies in the United States and other high-income countries often reach their coverage targets in less than five years. CII is adapting these private sector practices to support launch planning in low-resource settings and across a wide range of health areas.

Critical health interventions have historically experienced slow uptake and low coverage in low- and middle-income countries

COVERAGE OF TARGET USERS (%)



ACT: Artemisinin-based combination therapy  
Hib: Haemophilus influenzae type b  
ARV: Antiretroviral  
ORS: Oral rehydration solution

Source: Adapted from analysis by The Bill & Melinda Gates Foundation, Dalberg Global Development Advisors, and the Boston Consulting Group



CHLORHEXIDINE CORD CARE TRAINING, NEPAL  
PHOTO: THOMAS CRISTOFOLLETTI

## INNOVATION FOR IMPACT EXAMPLE

# CORD CARE WITH CHLORHEXIDINE

When applied to a newborn's umbilical cord, chlorhexidine has been shown to reduce cord stump infection by 68% and mortality by 23%, potentially saving over 300,000 lives globally each year. In 2014, building on the successful scaling of chlorhexidine in Nepal through Saving Lives at Birth, CII led the development of USAID's Global Chlorhexidine Scaling Strategy, which outlines a plan to accelerate scale and access, prioritizing high-impact countries, including Nigeria. We then partnered with the Nigerian Ministry of Health and USAID/Nigeria—and with partners such as CHAI, USAID's Maternal and Child Survival Program, and Dalberg—to develop a national scale-up strategy for chlorhexidine, outlining activities, costs, and targets. As part of this work, we leveraged human-centered design (HCD) to create tools to drive demand of this life saving antiseptic. Within five years of implementation of this plan in Nigeria, an estimated 55,000 newborns will be saved, while also serving as a blueprint for other countries to follow.

## INNOVATION FOR IMPACT EXAMPLE

# MICROBICIDES FOR AN AIDS-FREE GENERATION

HIV/AIDS is the leading cause of death for women of reproductive age in low-resource settings; in sub-Saharan Africa, 71% of new HIV infections are among adolescents. To accelerate access to microbicides and oral PrEP that can protect women from HIV, CII partnered with the Office of HIV/AIDS to introduce these new products. Convening developers, donors, and other key stakeholders, the planning process revealed critical needs around estimating demand and understanding user preferences. In response, CII developed a demand forecast for the dapivirine ring and is partnering with product developer CONRAD and HCD firms on packaging, branding, and other design concepts to increase product acceptability. These studies are the first to apply HCD to increase microbicide use among young women in sub-Saharan Africa.



PHOTO: IDEO AND CONRAD





Xcelerator training in Tanzania  
Photo: VentureWell

## INNOVATION FOR IMPACT EXAMPLE

# XCELERATOR TRAINING PROGRAM

Even the most promising innovations can face challenges in development, introduction, and scale. All along the pipeline, we have consistently seen that many innovators lack the capacity and resources to successfully scale on their own. Innovators need a range of assistance from choosing viable paths to scale and sustainable business models, honing their value proposition, identifying and understanding the target market, building commercial partnerships, and raising the right kind of capital at the right time. To increase the likelihood that their innovations will succeed, CII established the Xcelerator Training Program with VentureWell to provide training and coaching to global health innovators to address the complexities of introducing innovations in low-income countries and help speed up the process to real impact.



## UTILIZING INNOVATIVE FINANCING

USAID is at the forefront of developing innovative financing models that support the transition toward sustainably financed health systems. As domestic resources grow and frontier economies become more attractive for capital markets, innovative financing instruments are enabling public, private, and philanthropic funders to transact across an increasingly diverse financial landscape.

Innovative financing supports our health financing goals in three ways:

- **Impact.** Improving the efficiency and effectiveness of USAID investments through results-based contracts, reducing financial and operational risks, creating or aligning incentives, and pooling resources;
- **Leverage.** Mobilizing additional sources of public and private capital with various instruments, including the credit guarantee provided by USAID's Development Credit Authority to de-risk investments; and
- **Sustainability.** Promoting a shift towards investments that support inclusive and sustainable business models

**INNOVATION FOR IMPACT EXAMPLE**

# LULAMA: PHARMACY FINANCING IN SOUTH AFRICA

In developing countries, pharmacies play an important role in healthcare delivery. However, inadequate business skills, poor systems, and limited access to working capital prevents them from stocking high-quality, affordable medicines. In 2016, USAID, Absa Bank, Aspen Pharmacare, GlaxoSmithKline, Imperial Health Sciences, and Pfizer partnered to create Lulama, an innovative financing model to strengthen independent pharmacies in underserved areas. Combining the skills, systems, and processes of the private sector with the support of the public sector, the partnership provides independent pharmacies with access to working capital, a fixed basket of pharmaceutical and front shop goods, and technical assistance. The platform, which will be tested in South Africa, allows for participation from a range of private sector partners to enable scale across Africa.

## GUARANTEEING A MARKET FOR ZIKA DIAGNOSTICS

USAID's CII has partnered with organizations such as UNICEF to create an advance purchase commitment (APC). The purpose of the APC is to incentivize private sector actors to accelerate the development and introduction of much needed Zika diagnostics. The APC commits \$10M to guarantee the purchase of successfully developed diagnostics, regardless of demand, thus lowering the risk of investing in the development of this critical and urgently needed product.



PHOTO: DAVID MILESTONE



## SHAPING MARKETS

Innovation is critical to achieving development goals in the fight against malaria, HIV, and other health challenges, but inventing new products is not enough. Impact is inextricably linked to the health of the marketplace that delivers life-saving products to low-income populations. Efficient markets need to motivate suppliers to manufacture, wholesalers to distribute, and retailers to sell. But markets in developing countries are hampered by inefficiencies; a single breakdown in this complex system can keep life-saving products from those most in need.

Market shaping can disrupt current practices or transform existing market structures, creating efficiencies that lead to better health outcomes for the poor. In collaboration with donors, national governments, advocates, and other stakeholders, CII applies principles from its *Healthy Markets for Global Health: A Market Shaping Primer* to increase access to and use of life-saving commodities. Whether by dramatically lowering the cost of novel, long-lasting insecticide sprays to stem growing resistance or reducing procurement costs to hasten access to new antiretrovirals for HIV, CII is strategically targeting market shaping practices to realize better value for USAID investments and address previously insurmountable market barriers at scale.

**INNOVATION FOR IMPACT EXAMPLE**

# EXPANDING THE MALARIA CONTROL MARKET

Despite its effectiveness in combating malaria, indoor wall spraying has fallen by 40% in the past four years. In February 2016, UNITAID and the Innovative Vector Control Consortium launched a market shaping partnership with the U.S. President's Malaria Initiative, CII, Abt Associates, PATH, and the Global Fund to stimulate the development of, and facilitate access to, new insecticides for malaria control. The \$65.1 million initiative, Next Generation Indoor Residual Spray, uses a co-payment program to lower the cost of novel, long-lasting sprays while improving demand forecasting and fostering competition to keep prices affordable. By supporting the development and use of these new sprays in 13 African countries, the partnership will expand the market and protect up to 50 million people from malaria.



PHOTO: IVCC



## LEVERAGING THE PRIVATE SECTOR

Dynamic global partnerships with the private sector are a cornerstone of CII's work. Aligning business interests and development objectives can drive the development of—and access to—lifesaving global health innovations. From tapping the skills of the world's largest healthcare marketing firm, McCann Health, to develop marketing materials to scale low-cost treatments for childhood diarrhea to working with GlaxoSmithKline, Merck, the Bill & Melinda Gates Foundation and the Aspen Institute, to harness the management and leadership skills of the private sector for ministries of health in order to strengthen community health worker programs—CII has collaborated to identify and pursue points of shared value with the private sector.

CII has developed transformative partnerships with companies such as Pfizer, The Coca-Cola Company, and Accenture to leverage our ability to act as an investor, convener, and risk mitigator. And CII has collaborated with companies such as DuPont, Becton Dickinson, Facebook and IBM to bring some of the most cutting-edge ideas to market. Our ability to engage the private sector in meaningful initiatives that align with corporate strategy and mission, allows those companies to share their resources, assets, and expertise with USAID and our innovators. This type of collaboration fosters more sustainable partnerships and greater progress towards improved health at the last mile.

## INNOVATION FOR IMPACT EXAMPLE

# THE COCA-COLA COMPANY'S PROJECT LAST MILE

Almost half of Africa's population lacks access to essential medicines due to supply chain inefficiencies, resulting in millions of preventable diseases and deaths as life-saving medicines fail to reach the last mile. Through Project Last Mile, an initiative of The Coca-Cola Company, The Global Fund to Fight AIDS, Tuberculosis and Malaria, The Bill & Melinda Gates Foundation, and USAID, partners apply Coca-Cola's supply chain and marketing expertise to get medicines and medical supplies to the people who need them most. In Tanzania, knowledge sharing between Coca-Cola Kwanza, the local bottler; and the Medical Stores Department (MSD) has resulted in proactive planning and procurement, improved effectiveness and efficiency of delivery, and a 30% improvement in the availability of medicines. By 2020, the partnership will be in 10 African countries.



SUPPLIES REACH REMOTE TANZANIA CLINIC  
PHOTO: PROJECT LAST MILE

“ CII has provided foundational guidance for innovators and partners working to develop innovations at scale to tackle the world’s most pressing health challenges. The Center’s leadership will only become more vital as the global health community works toward the ambitious development goals the world has set for ourselves while also addressing new and emerging threats.

–Steve Davis, President and CEO, PATH





# TACKLING HEALTH CHALLENGES

CII has the experience and skills to continue helping the Bureau meet its ambitious health goals. To do that, our focus must remain on...

- **Staying ahead of the curve** by ensuring that we consistently capture and apply state-of-the-art practices to how we source and support scalable ideas and how we ensure they advance quickly to save lives...
- **Continuing to look for the game changers**—by investing in those innovations that have the potential to make transformational challenges that leap up to new levels of progress...
- **And, never underestimating the challenge of scaling for impact**—by addressing the wide range of challenges to scale head on every single time. For example, we know that innovations that don't begin planning for delivery early on often don't scale well later. Success at scale goes back to choices innovators make very early in the process—from designing products that meet market and users to planning strategically for launch and scale. But also, we know that operating in these markets brings a host of new challenges. Tackling them requires innovation in how we address market inefficiencies, leverage private capital and partner with the private sector.

As we continue our work, CII will double down on these competencies of sourcing new ideas from every corner, convening co-creators from every skill set, and inviting research and delivery partners from many sectors to accelerate access to innovations and drive health impact.

**LEARN MORE ABOUT CII**  
**[WWW.USAID.GOV/CII](http://WWW.USAID.GOV/CII)**  
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