



U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

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www.usaid.gov

CENTER FOR INNOVATION AND IMPACT

 **USAID** | Global Health
FROM THE AMERICAN PEOPLE

2018 IMPACT BRIEF

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OUR MISSION

INNOVATION REALIZED

The **Center for Innovation and Impact (CII)**, in USAID's Bureau for Global Health, encourages business-minded approaches and accelerates impact against some of the world's most important health issues. CII invests seed capital in the most promising ideas and applies rigorous, market-oriented approaches to **cut the time it takes to transform discoveries in the lab to impact on the ground.**

“Innovation is essential to achieving our very ambitious global health goals. CII brings a critical, business-minded perspective to our work; helping us test and adopt new approaches, make smart bets on new innovations, and connect us with new partners.”

– Irene Koek, Acting Assistant Administrator, Bureau for Global Health, USAID

| | | |
|--|--|---|
| <p>OUR WORK AT A GLANCE:</p> | <p>FUNDED >150 Innovations</p> | <p>CULTIVATING AN INNOVATION PORTFOLIO targeting the causes of over 2M neonatal and maternal deaths</p> |
| <p>25 Innovations SCALING OR TRANSITIONING TO SCALE</p> | <p>COLLABORATING ON PROJECTS IN 35+ Countries</p> | <p>OPEN INNOVATION PLATFORM GENERATED >6500 Applications</p> |
| <p>COLLABORATING WITH INITIATIVES AIMING TO SAVE 2-3M Lives</p> | <p>REDUCING COST OF KEY HIV & MALARIA COMMODITIES \$400M+ Procurement Spend</p> | <p>LEVERAGED \$300M+ Outside Capital</p> |

HOW WE WORK & PARTNER



CATALYZE INNOVATION

We use a variety of approaches—from Grand Challenges to hackathons to prizes—to source groundbreaking solutions for tough and seemingly intractable health challenges.

- **Grand challenges** – Leveraging the power of open innovation to crowd-source new solutions to global health challenges
- **Innovator support** – Partnering with our innovators to create business models that help them to sustainably scale
- **Incubating new approaches** – Bringing together diverse and out-of-the-box thinkers to develop new solutions



SCALE FOR IMPACT

We partner across the Bureau to support accelerated introduction and scale-up through:

- **Strategic planning for introduction and scale** – Planning early and comprehensively to accelerate the launch of a product or service
- **Market shaping** – Developing market-based incentives to create efficient, competitive markets
- **Innovative financing** – Leveraging non-traditional, catalytic tools to enhance value for money



IDENTIFY & APPLY CUTTING-EDGE PRACTICES

We examine successes and failures across a range of markets and sectors to identify and apply state-of-the-art practices.

- **Digital health** – Applying a strategic lens to the implementation of digital health
- **Cutting-edge public goods** – Creating a series of strategic practical guides and actionable tools to apply best practices and share learnings
- **Partnerships** – Developing transformative partnerships that leverage the public and private sector to create sustainable impact
- **Human-centered design** – Incorporating human-centered design as a complementary approach in the program development and implementation process



EXAMPLES OF OUR WORK

By working across the Bureau for Global Health, CII is able to share learnings and approaches across health areas, identify commonalities, and leverage economies of scale. These are a few examples of how we partner with our technical colleagues:



HIV/AIDS – Whether increasing access to new options for treatment or prevention, CII works hand-in-hand with USAID’s Office of HIV/AIDS (OHA) and PEPFAR to tackle the challenges of bringing new products to market. On project OPTIMIZE, CII supports rapid introduction and scale up of HIV treatment such as TLD and other optimized antiretrovirals (ARVs). CII also works in partnership to bring improved understanding of end-users to increase uptake and adherence of HIV prevention products.



POPULATION AND REPRODUCTIVE HEALTH – CII’s collaboration with USAID’s Office of Population and Reproductive Health (PRH) leverages new channels, partnerships, and system improvements to ensure family planning information and products are available when and where needed. For example, CII partnered with PRH on a direct-to-consumer project to identify effective ways of reaching adolescents in partnership with the private sector and supported PRH’s Ensuring Effective Supply Chains Grand Challenge, which generated innovative and transformative solutions to overcome key roadblocks and build more effective supply chains in low- and middle-income countries.

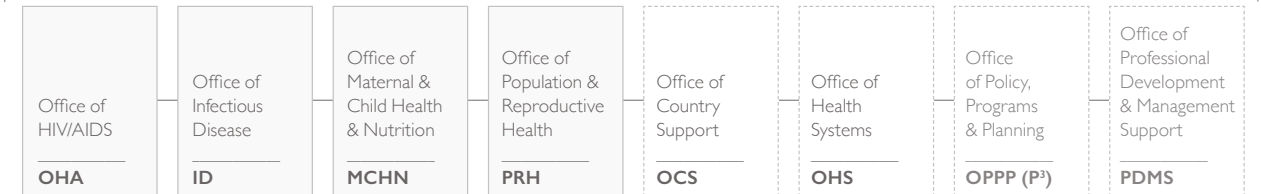


MALARIA – CII supports USAID’s Office of Infectious Disease (ID) through efforts such as partnering with the President’s Malaria Initiative (PMI) to explore market shaping and other market access opportunities. This collaboration includes analyzing the market to expand next-generation indoor spraying to more than 50 million homes, and helping assess the potential role of semi-synthetic artemisinin in stabilizing and reducing the cost of treating the over 200M malaria cases every year.

BUREAU FOR GLOBAL HEALTH

OFFICE OF THE ASSISTANT ADMINISTRATOR | AA

Center for Innovation & Impact



MATERNAL AND CHILD HEALTH – CII works closely with USAID’s Office of Maternal and Child Health and Nutrition (MCHN), as well as external partners, to explore new financing and partnership approaches to tackle maternal and child health challenges. USAID, in partnership with other funders and implementers, launched one of the largest development impact bonds to date. The bond aims to reduce the number of maternal and newborn deaths by improving the quality of maternal care in private health facilities in Rajasthan, India. In addition, working in partnership with UNICEF and USAID/MCHN, CII helped create an investment case to catalyze investment in pneumonia as a means to strengthen overall child health outcomes through an integrated lens.



INFECTIOUS DISEASE OUTBREAKS – CII contributes to USAID’s response to the Zika epidemic, ensuring a coordinated effort across the vector control, service delivery, behavior change, community engagement, and innovation lines of effort with USAID’s Office of Infectious Disease (ID). In addition, CII has worked to identify and support promising later-stage innovations from the Combating Zika and Future Threats portfolio to scale in Latin America and the Caribbean. CII also partnered with UNICEF to create an advance purchase commitment (APC) for Zika diagnostics in order to accelerate their development and time to market.



CATALYZE INNOVATION

The pace of progress in global health is determined by our ability to seed, nurture and spread innovation. The global health community has set ambitious goals—from preventing child and maternal deaths to controlling the HIV/AIDS epidemic to combating infectious diseases. By sourcing and supporting the development, introduction, and scale up of breakthrough innovations that use cutting-edge technology, we ensure that we can achieve these goals. Through Grand Challenge programs, hackathons and other forms of open innovation, innovators around the world are tackling global health challenges head on by thinking of innovative, creative, and multi-disciplinary ways to address age-old challenges in health. CII catalyzes innovative solutions in the following three ways:

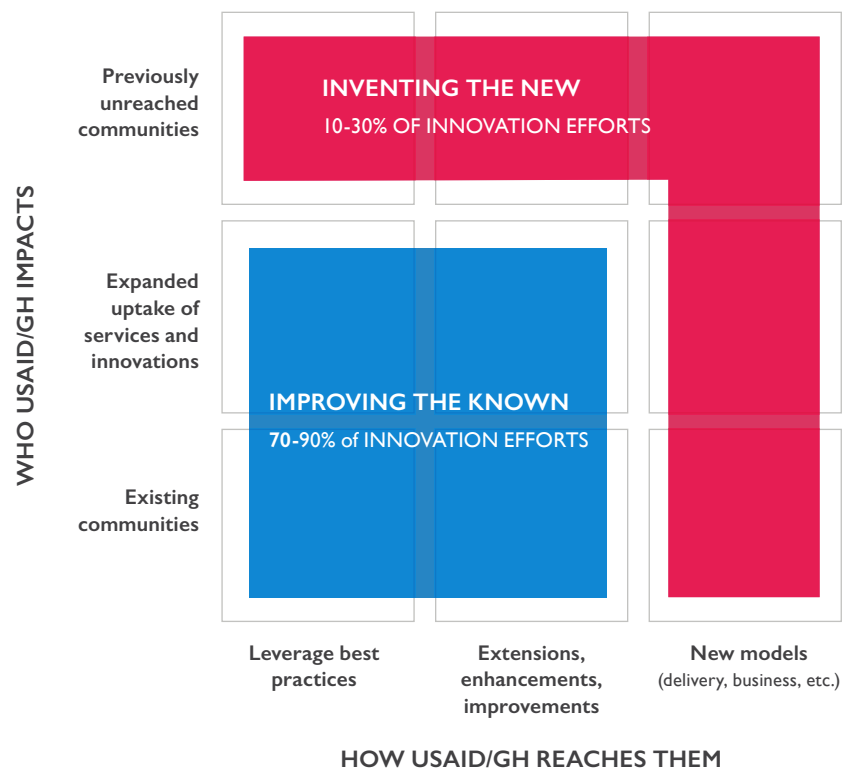
- Grand Challenges
- Innovator Support
- Incubating New Approaches



Photo: USAID

CII believes that innovation is about both finding game-changing solutions and improving and building on the great work already being supported across the Bureau for Global Health.

A STRATEGIC INNOVATION PORTFOLIO



USAID's Bureau for Global Health is well positioned to support innovation:

- Cutting-edge technical expertise across high-priority global health challenges
- More than 60 country and regional missions with connections to political leaders
- Partnerships with leading global universities and corporations to facilitate collaboration



GRAND CHALLENGES

Grand Challenges call on the brightest minds across the globe to share their bold ideas. In 2011, the Bureau for Global Health 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 three more Grand Challenges over the last four years—**Fighting Ebola**, **Combating Zika and Future Threats**, and **Ensuring Effective Health Supply Chains**.

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 Global Health Grand Challenges, USAID and its partners have cultivated a pipeline of over 150 innovations that are poised to deliver significant health impact. For more information, visit www.usaid.gov/ghgrandchallenges.



WITH OUR GRAND CHALLENGES, WE FUND AND SUPPORT A BROAD RANGE OF GLOBAL HEALTH INNOVATORS



Supporting **116 innovations** aimed at saving the lives of mothers & newborns, with potential to save 150 thousand lives by 2030



Rapidly sourced, developed, and tested **14 innovations** in the midst of the Ebola crisis to address key gaps in our outbreak response



Supporting **26 innovations** that aimed to curb the spread of Zika and prevent future global health threats from becoming global crises



With USAID's Office of Population and Reproductive Health and the Bill & Melinda Gates Foundation, we are supporting over **10 innovations** with the goal of overcoming key roadblocks to more effective health supply chains



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 and support the scale up of innovative tools and approaches to help mothers and newborns during their most vulnerable hours.

TO DATE:

\$100M ADDITIONAL FUNDING LEVERAGED

116 PROMISING INNOVATIONS

SOME EXAMPLES:



Simprints is transitioning to scale their rugged, portable biometric scanner for real-time identification and access to patient records. They previously received a seed award for the development of the scanner and were nominated for a Round 7 transition-to-scale award to work with BRAC in Bangladesh to reach 2.56M women and children with improved care.



Massachusetts General Hospital is scaling their next generation uterine balloon tamponade (UBT) system to treat postpartum hemorrhage in Kenya and Sierra Leone. To date, they’ve introduced the device in over 550 facilities across these two countries and saved over 400 lives, while catalyzing interest of the UBT in 22 countries.



Mbarara University developed the Augmented Infant Resuscitator (AIR), which provides instant feedback to healthcare professionals performing newborn resuscitation to reduce neonatal deaths from intrapartum birth asphyxia or prematurity. As a Round 7 transition-to-scale grantee, Mbarara will demonstrate the impact of AIR on skills acquisition and retention, newborn outcomes, and explore opportunities for commercialization of the device.



Rice University was one of four finalists named in the MacArthur Foundation’s 100&Change competition and received a \$15 million award from the Foundation for their NEST360° program, which has the potential to halve the 1.1 million annual newborn deaths in Africa over the next 10 years with its package of lifesaving technologies. Saving Lives at Birth has supported the development of several NEST360° innovations for newborn care, positioning them for further funding and support as they develop and scale.



The Bempu device alerts caregivers if the newborn is becoming too cold, enabling early action to prevent hypothermia-related complication or death.

SPOTLIGHT:



BEMPU HEALTH PVT. LTD

HYPOTHERMIA MONITORING DEVICE FOR NEWBORNS

Hypothermia and infection are among top health challenges facing newborns in low- and middle-income countries, with hypothermia affecting up to 85% of newborns globally. While regular temperature monitoring is the standard of care in developed countries, it can be a challenge in low-resource settings both in clinics and in the home, where there are competing priorities and a lack of awareness about the importance of monitoring newborn temperature. With funding from Saving Lives at Birth, Bempu developed, validated, and launched the BEMPU Hypothermia Alert Device, a newborn temperature-monitoring wristband that intuitively alerts caregivers if their newborn is hypothermic, enabling intervention well before complications or death can occur. The device has already helped an estimated 10,000 newborns and was named one of TIME's 25 Best Inventions of 2017. Through Saving Lives at Birth tailored support, Bempu has explored the introduction and adoption of the device in various Asian markets. Bempu was recently nominated for a \$2 million SL@B award to conduct clinical trials, lower the cost and scale distribution of the device to achieve greater impact on saving newborn lives.



As the threat of Zika grew at an alarming rate in early 2016, it was clear that countries did not have the necessary tools to effectively stop its spread. In response, CII launched Combating Zika and Future Threats: A Grand Challenge for Development, which called upon the global community to generate cutting-edge approaches to fight the 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, **26 solutions** were selected for accelerated development, testing, and deployment. These innovations address key challenges in vector control, personal and household protection, vector and disease surveillance, community engagement, diagnostics, and unmanned aerial vehicles.

TO DATE:

OVER
900 Ideas
SUBMITTED

26
PROMISING INNOVATIONS

SOME EXAMPLES:



Indiana University is producing and testing a new class of natural larvicides that use low-cost and ubiquitous inactivated baker's yeast. The RNAi larvicide targets gene sequences that are found in Aedes mosquitoes, but not in humans or other non-target species.



Ifakara Research Institute is designing low-cost insecticide treated sandals to provide protection against day-biting and night-biting mosquitoes for up to six months. Preliminary studies have shown that people wearing the sandals received 77% fewer mosquito bites.



Johns Hopkins University is developing a novel low-cost, cloud-connected system of smart traps called VectorWeb. These traps take pictures of and identify the captured mosquitoes, and provide real-time mosquito surveillance data to health administrators, communities, and individuals.



The Institute for Global Environmental Strategies is using the GLOBE Program's Mosquito Protocol and mobile application to engage students as citizen scientists to collect and share mosquito data, and develop local mitigation strategies that can reduce the risk of diseases in their communities.



BluSense Diagnostics is developing one-drop-of-blood quantitative point of care diagnostic tests to quickly and accurately diagnose dengue, Zika, and chikungunya using Blu-ray technology.



GRAND CHALLENGES

Premise Data is working with the Municipal Public Health Department in Cali, Colombia to integrate their existing vector control workflows onto the Premise platform. As a result, the vector control staff now has the capacity to monitor and respond to on-the-ground operations with increased timeliness, granularity, and accuracy.

SPOTLIGHT:



PREMISE DATA CORPORATION CITIZEN-LED DISEASE RISK MAPPING AND VECTOR MONITORING PLATFORM

Public health programs often fail to deliver efficient prevention and control of emerging disease threats, in part because much of the surveillance data is collected on paper and out of date by the time it reaches decision makers. Premise Data is filling this gap through their mobile application, which optimizes vector surveillance and control workflows conducted by professional public health workers. In 2017, Premise Data successfully pilot tested their program in Cali, Colombia. To date, 375,000 inspections have been completed on the mobile application, and Cali's vector control team now has the capacity to monitor and respond to on-the-ground operations with increased timeliness, granularity, and accuracy. The adoption of the platform has led to order-of-magnitude improvements in operational efficiencies. To build on this success, USAID provided additional support to scale Premise's platform to two additional locations in Colombia in partnership with Combating Zika innovators Monash University and WeRobotics. Monash University is conducting large-scale deployments of mosquitoes infected with Wolbachia, a naturally-occurring bacterium that interferes with mosquitoes' ability to transmit diseases like Zika and Dengue to humans, and WeRobotics is developing a mechanism to release Wolbachia-infected mosquitoes from unmanned aerial vehicles.



Photo: AFP / Marvin RECINOS



Photo: Premise Data





In 2014, the world faced the largest Ebola epidemic in history. 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, adoption of health-promoting behaviors, and information communication technology platforms. While each of these tools is useful in the midst of a crisis, they also have applications for business-as-usual care in developed and developing country environments. This helps speed clinician adoption, and ensures that people are familiar with and know how to use the innovations when the next outbreak arises. Twelve of the innovations have been tested in West Africa, and over half are in use or available for purchase today.

TO DATE:

OVER
1500 Ideas
SUBMITTED

14
PROMISING INNOVATIONS

12 have been tested on the ground in West Africa
Over half are in use or available for purchase today



SOME EXAMPLES:



Kinnos developed Highlight, a colorized, powdered additive that is mixed into bleach at point-of-use to improve visualization and coverage during decontamination. The color is designed to fade after the contact time of the disinfectant has elapsed, which signals to the user that the decontamination process is complete and improves feelings of safety and confidence among healthcare workers. In 2017, Kinnos announced a new product, Highlight Wipes, which aims to combat healthcare-associated infections and antimicrobial resistance in hospitals and other healthcare settings. CII has supported the Kinnos team in developing a strategy to fast track product development and scale up.



Shift Labs' DripAssist is an FDA approved, battery-powered infusion monitor that converts the number of drops falling from an IV fluid bag into an accurate and actionable flow rate displayed on an LCD screen. The monitor helps deliver IV fluids with precision to patients, which is particularly important when treating children or elderly patients as it eliminates the risk of fluid overload. The DripAssist has become a product staple for WHO, MSF, and ZMapp, the life-saving medication developed to treat Ebola patients, and it is now in use in 19 developing countries. In addition, the product has been recognized for its applicability across several use cases, and it will be tested for maternal and child health uses through Saving Lives at Birth in 2018.



Makerere University designed a humanitarian tent with improved mechanisms for heat and air exchange, creating a cooler environment for both patients and healthcare workers. Several of the redesigned tents are now in use in Northern Ugandan refugee settlements.



The World Health Organization is issuing the new preferred product characteristics (PPC) for personal protective equipment (PPE) for hemorrhagic fevers. CII has helped drive the development of this re-defined policy, which will enable the use of safer and more user-friendly PPE during the next epidemic.





GRAND CHALLENGES

Baylor College of Medicine's Emergency Smart Pod can be expanded to a full-size unit in less than five minutes with just four people. It now serves as an isolation unit for infectious patients at ELWA Hospital in Monrovia, Liberia.

SPOTLIGHT:



BAYLOR COLLEGE OF MEDICINE

EMERGENCY SMART POD

During the Ebola epidemic, healthcare workers were required to tend to their patients in makeshift care settings as they waited for the construction of Ebola treatment units to be completed. To address this challenge, Baylor College of Medicine developed the Emergency Smart Pod, a portable, lightweight healthcare setting that can be expanded to a full-size unit in less than five minutes with just four people. In 2017, the Emergency Smart Pod was deployed to ELWA Hospital in Liberia, where it was used to prepare Ebola survivors for cataract surgeries. Going forward, the Pod will be used as an isolation unit for infectious patients. The ELWA Hospital staff believes that the Pod could be instrumental in preventing future outbreaks from becoming epidemics. To learn more about the Fighting Ebola Grand Challenge and the Emergency Smart Pod, watch this video.



Visit USAID's YouTube page to see this innovation in action in our video *The Fighting Ebola Grand Challenge: Innovating in a Crisis*.





ENSURING EFFECTIVE
HEALTH SUPPLY CHAINS
A GRAND CHALLENGE FOR DEVELOPMENT

Public health supply chains are often sub-optimal and unable to support the achievement of a country's broader health goals due to a combination of failures relating to people, processes, technology or resources. Recognizing the need for innovation to tackle these supply chain barriers, the Bill & Melinda Gates Foundation and USAID's Office of Population and Reproductive Health, with support from CII, issued a joint call for innovative solutions that have the potential to overcome key roadblocks to more effective supply chains in low- and middle-income countries. The challenge resulted in over 500 applications, and USAID will announce the award nominees this year.



These innovations will look to leverage new technologies to address longstanding supply chain failures.

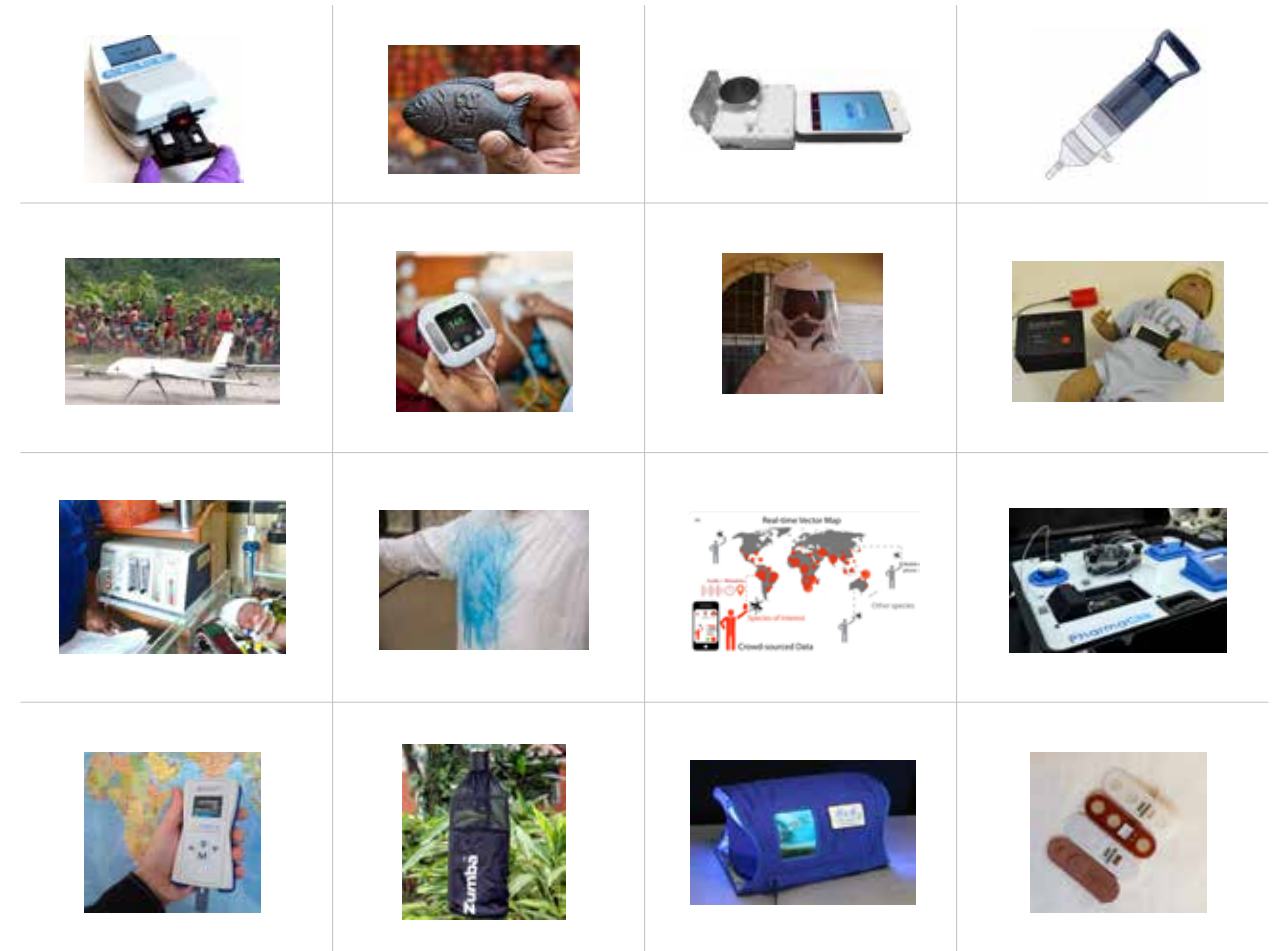
TO DATE:

OVER
500 Ideas
SUBMITTED

13
PROMISING INNOVATIONS

GRAND CHALLENGES

Our Global Health Grand Challenges include a portfolio of **over 150 innovations**. Getting the most promising and cost-effective solutions to scale remains our ultimate goal.



INNOVATOR SUPPORT

WE PARTNER WITH OUR INNOVATORS TO CREATE BUSINESS MODELS THAT HELP THEM TO SUSTAINABLY SCALE

Expertise in Product Introduction and Scale Up, and Business Model Design

- **Innovator-specific support.** Guidance in introduction planning; defining business model and sustainability strategies
- **Portfolio-level support.** Landscape assessments of markets in which multiple innovators are operating (e.g., bubble Continuous Positive Airway Pressure, emergency epidemic procurement, vector control); capacity building in planning for scale

Connections to Partners, Technical Experts, and Key Influencers

- **Nurture community of innovators.** Promote cross-fertilization and share lessons learned
- **Facilitate relationships between innovators.** Connect innovators with potential partners, mentors, and relevant small and medium-sized enterprises (SMEs) (e.g., Becton Dickinson & Company, DuPont, WHO, Médecins Sans Frontières)
- **Generate visibility for innovators.**
- **Line up testing sites/facilities.**
- **Develop Target Product Profiles and safety standards.**

Human-centered Design to Keep the End-user in Mind

- **On the ground assessments.** Gaining real-world perspective and real-time feedback, engaging with end users
- **Understanding the local and global context.** Acknowledging limitations of the environment and the user
- **HCD support helps to refine innovation design, product training and use cases.**

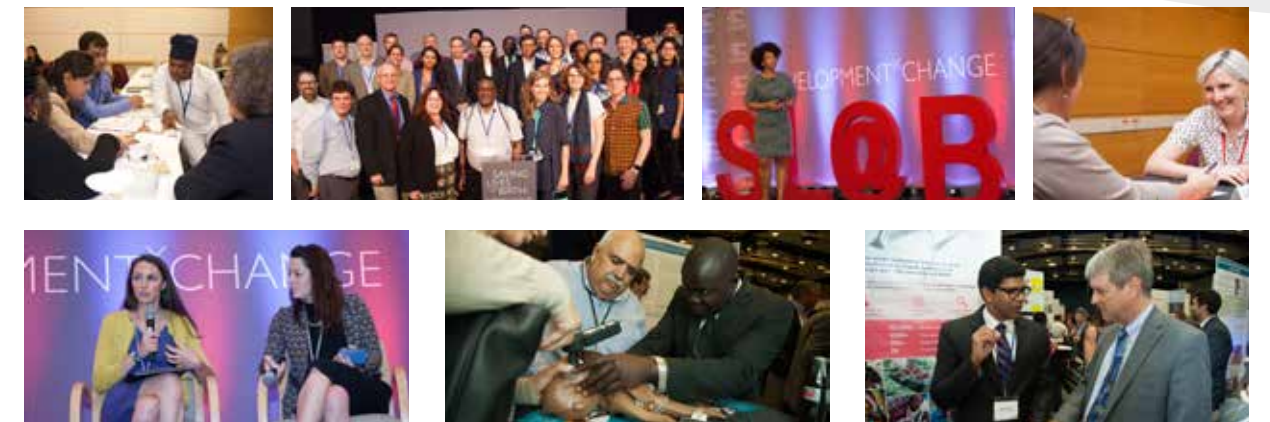
“DevX was a lightbulb moment during the early stages of our project. The event brings together an ecosystem of maternal and child health expertise, and the connections we formed there at the beginning stages of our project have catalyzed future support and funding.”

– Saving Lives at Birth grantee

SPOTLIGHT: DEVELOPMENTXCHANGE

Each year, the Saving Lives at Birth (SL@B) partners host the DevelopmentXChange, an event that brings together some of the most cutting-edge innovators in the sphere of maternal and newborn health for capacity building sessions, networking, and meetings with experts and potential collaborators to provide innovators the knowledge and tools to accelerate the development, implementation, and scaling of their projects. On the last day of the event, members of the general public are invited to join an inspiring Pitch Competition and to explore the signature innovation Marketplace.

Last year, around **100 of our SL@B** innovations were represented, and there were nearly **300 curated partnering and mentoring meetings** between innovators and representatives from over **40 organizations**.



INCUBATING NEW APPROACHES

CII hosts regular action-oriented incubators to ensure that our work is informed by best practices from both the public and private sector.



LAB-IN-A-PACK

The Lab-in-a-pack co-design session convened public and private thought leaders to further define the opportunities to design a lightweight mobile diagnostics lab that is rapidly deployable by healthcare workers during a disease outbreak, or for identifying suspected individuals during routine surveillance.



IMPACT INVESTING

The impact investing incubator brought together key players and stakeholders who are active in impact investing and global health to begin a dialogue around how to work together to develop a supportive ecosystem that can allow health social enterprises to grow and scale. The session recognized existing challenges to scale, analyzed lessons learned from the collective impact investing experience, and emphasized exploring innovative financing tools that could create an improved financial value chain to more effectively support health social enterprises.



PAY-FOR-RESULTS

CII and USAID's Office of Private Capital and Microenterprise hosted an incubator on Pay-for-Results financing mechanisms. The event included participants from across USAID, as well as external experts from the public sector, private foundations, implementing partners and investors. The output of the incubator will drive the design of a new vehicle to enable more rapid use of these models in the future.



UAVS IN GLOBAL HEALTH: DEFINING A COLLECTIVE PATH FORWARD

Unmanned Aerial Vehicles (UAVs) have the potential to make significant impact in global health, but funders, innovators, and implementers must work together to address the most pressing challenges and support promising use cases. With input from a diverse set of experts through interviews and an incubator session, CII developed *UAVs in Global Health: Defining a Collective Path Forward*, which lays out a proposed investment roadmap to align stakeholders and accelerate progress toward a cost-effective and sustainable role for UAVs in global health.



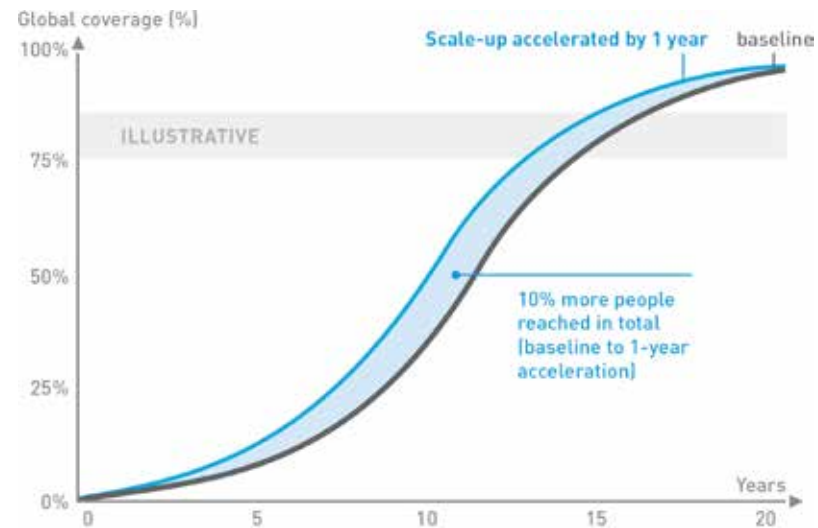


SCALE FOR IMPACT

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 markets in low- and middle-income countries presents a host of new challenges. Tackling these challenges requires not only good delivery planning but innovation in how we address market inefficiencies. We partner across the Bureau for Global Health to support accelerated introduction and scale-up through:

- Strategic planning for introduction and scale
- Market shaping
- Innovative financing

BENEFITS OF ACCELERATING UPTAKE



For a typical global health launch, accelerating the scale-up of critical health interventions by even one year can result in an increased reach of 10% of the target population.

Global health practitioners know that introducing and scaling new innovations is a complex process. There is no shortage of factors to consider when developing a product and delivering it to the world's hardest to reach populations.



Photo: Brant Stewart, RTI/Courtesy of PMI



STRATEGIC PLANNING FOR INTRODUCTION & SCALE

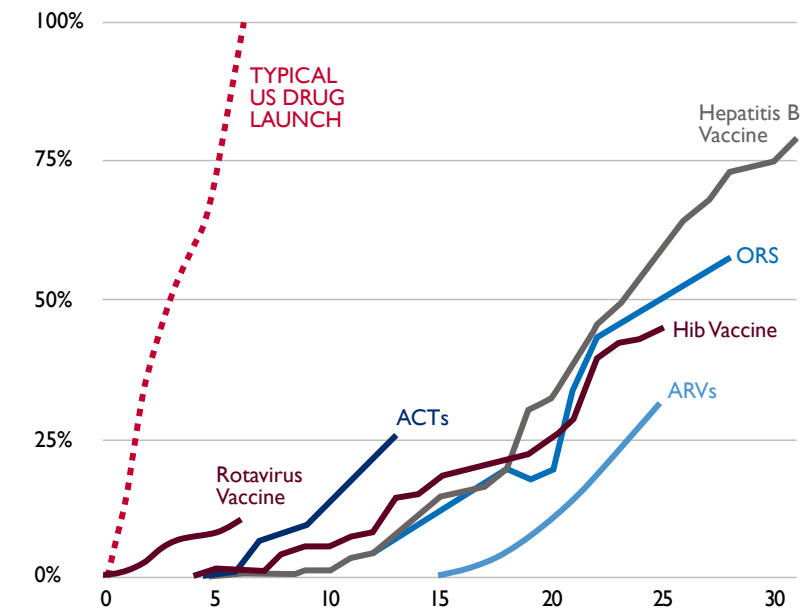
Whether introducing new products or scaling proven lifesavers, strategic planning is crucial to ensure that products reach those who need them, and thus translate innovation in the lab into impact on the ground. Strategic planning is a complex process that involves evaluating market feasibility, assessing end-user acceptance, analyzing supplier dynamics, 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 and thus depends on smooth coordination across these activities.

As a result, global health innovations often take decades to reach their intended users in low-resource settings. 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 strategic planning in low-resource settings across a wide range of health areas to cut the time it takes for innovations to reach impact.



Global health innovations have long been challenged by late introduction and slow scale-up.

COVERAGE OF TARGET USERS (%) OVER TIME FROM A SAMPLE OF GLOBAL HEALTH INTRODUCTION EFFORTS



New health interventions have historically experienced slow uptake and low coverage in low- and middle-income countries, especially compared to new drug launches in high-income countries. While there are many differences between these situations, early launch planning practices that are common in the US pharmaceutical sector can be adapted and similarly applied to global health interventions.



STRATEGIC PLANNING FOR INTRODUCTION & SCALE

SOME EXAMPLES:



Dapivirine ring introduction – To meet our goal of an AIDS-free generation, a focus on treatment isn't enough—we also need tools for prevention. Using a human-centered design approach, CII and USAID's Office of HIV/AIDS—in partnership with the International Partnership for Microbicides (IPM)—created design concepts and tools to increase the adoption and sustained use of the dapivirine ring, the first long-acting woman-controlled method for reducing the risk of HIV infection, in sub-Saharan Africa. Designs are currently being tested in IPM's demonstration projects and are also included in IPM's introduction planning.



Family planning direct-to-consumer business models – Many adolescents lack the knowledge, agency, or resources to avoid or delay pregnancy. Using a human-centered design approach, CII and the Office of Population and Reproductive Health worked to identify the most effective ways to reach adolescents in India and Nigeria with fertility awareness knowledge and family planning methods through direct-to-consumer channels. In addition, this project generated compelling shared value opportunities for private sector engagement that could increase adolescents' access to sexual and reproductive health information and products while aligning with commercial goals.



Pneumonia control through child and newborn health lens – CII and USAID's Office of Maternal and Child Health and Nutrition partnered with UNICEF to accelerate and catalyze global efforts around pneumonia control as a means to improve child health outcomes through an integrated lens. This work developed a global pneumonia investment case, two case studies involving pneumonia control planning in Ethiopia and Nigeria, and country archetypes to provide guidance on how and where to focus pneumonia scale-up efforts. This work has fed into the Every Breath Counts Coalition as it works with country governments to develop and implement pneumonia control efforts.

SPOTLIGHT:

ACCELERATING ACCESS TO OPTIMIZED HIV TREATMENT REGIMENS



Through activities like Project OPTIMIZE, CII, USAID's Office of HIV/AIDS and implementing partners are helping accelerate access in low-resource settings to simpler, safer and more affordable HIV treatment. This global partnership is supporting clinical trials, evaluations and research to fill key HIV treatment clinical data gaps; applying innovative technologies and industry expertise for more efficient and effective product development; and accelerating product introduction globally and locally through market shaping and introduction strategy support.

CII is also collaborating with other US government agencies through PEPFAR to support countries with advance orders, planning tools to estimate patient volumes and legacy stock levels, and other demand- and supply-side activities critical for a successful transition to optimized treatment regimens.



MARKET SHAPING

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 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 or services to realize better value for USAID investments and address previously insurmountable market barriers at scale.



3 TYPES OF LEVERS TO ADDRESS MARKET SHORTCOMINGS:



REDUCE TRANSACTION COSTS

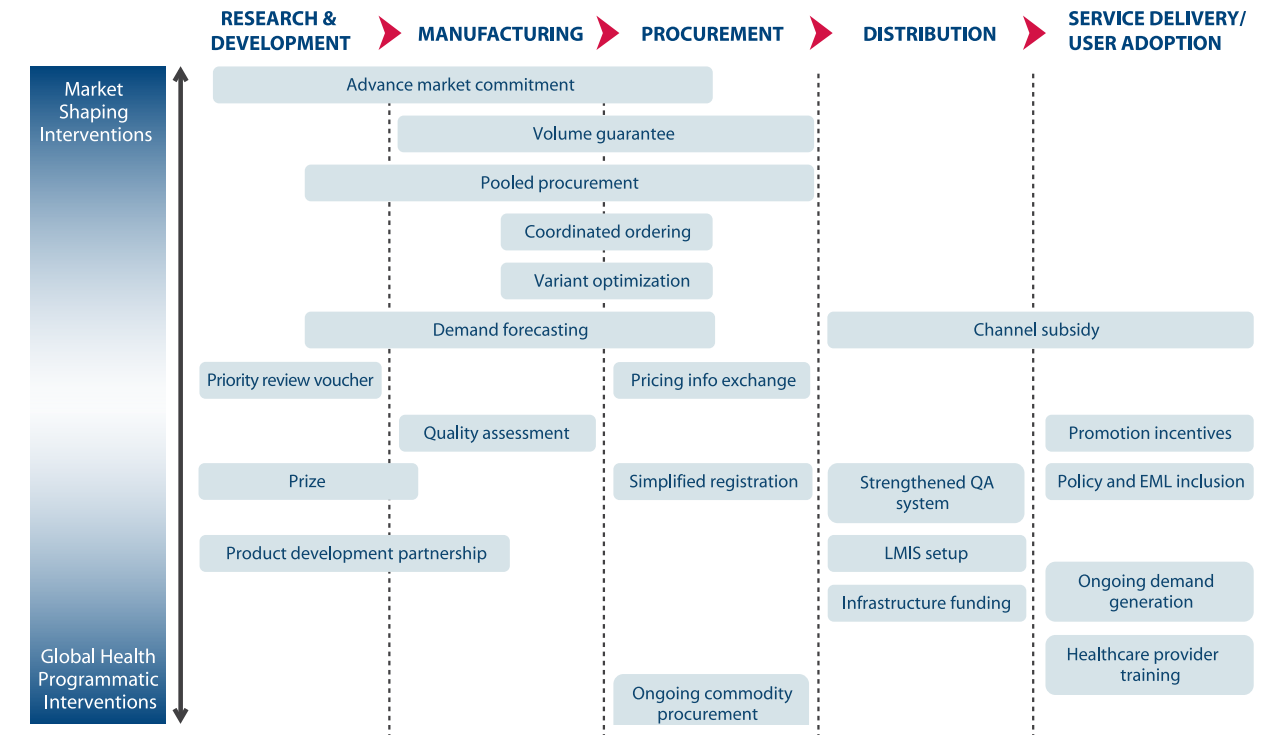


INCREASE MARKET INFORMATION



BALANCE SUPPLIER AND BUYER RISKS

MARKET SHAPING SPECTRUM ACROSS THE VALUE CHAIN



This schematic, from CII's Market Shaping Primer, illustrates a rough mapping of interventions along the market shaping/programmatic continuum and the product value chain.



MARKET SHAPING

Countries, donors, and procurers can use their purchasing power, influence, and access to technical expertise to address the root causes of market shortcomings and generate improved health outcomes.

SOME EXAMPLES:



TLD pricing agreement & advance order – As part of PEPFAR's engagement, USAID's Office of HIV/AIDS (OHA) and CII provided active support and guidance on a transformational and historic ceiling price agreement that is accelerating the availability of the first affordable, generic, single-pill HIV treatment regimen containing dolutegravir (DTG) to public sector purchasers in low- and middle-income countries. The agreement represents a multiparty partnership including the governments of South Africa and Kenya, together with UNAIDS, CHAI, the Bill & Melinda Gates Foundation as well as PEPFAR and USAID. Having learned from past challenges to ensure a sufficient global supply of new ARVs, CII worked with OHA and other partners to enable a PEPFAR Emergency Commodity Fund purchase for 2 million 30-day packs of TLD (costing ~USD \$15M) to send a strong market signal to accelerate TLD production.



Zika APC – Without a market incentive, manufacturers did not see a strong business case to develop much-needed Zika diagnostics. To close this gap, CII partnered with UNICEF to create an advance purchase commitment (APC). By committing \$10M to guarantee the purchase of successfully developed diagnostics, regardless of country demand, the APC lowers the risk of investing in this critical product and accelerates its development and market introduction. A first tender was released in early 2017, resulting in conditional offers to two diagnostic manufacturers. A second tender will be released in early 2018. Additionally, CII and UNICEF are supporting the development of calibration and screening panels to validate the performance of the Zika diagnostics. The availability of validated panels has been identified as a critical step to facilitating market entry and shortening the time to market for all new Zika diagnostics, even those not funded directly by the APC.



Improving TB Health Outcomes through better private sector engagement in Indonesia – With around 1 million people developing active TB each year, Indonesia bears the second-highest global disease burden and has considerable distance to go in the fight against TB. Private providers see 74% of initial care-seeking patients and provide nearly half of all TB treatment, but these providers have historically been excluded from national government interventions and past efforts have seen limited success with these key stakeholders. USAID's Indonesia Mission and TB team leveraged CII and its access to private sector expertise to apply an end-user focus to this problem.

The project team engaged private sector patients and providers to gain a deeper understanding of behaviors and motivations for both patients and providers in the private sector. Armed with these insights, the teams conducted iterative rounds of design workshops to identify solutions that could most effectively improve health outcomes in these settings. The findings of this market assessment are already shaping future USAID/Indonesia TB programming with a sharp focus on leveraging the private sector.



Semi-synthetic artemisinin with the Global Fund, PMI, and CHAI – Artemisinin is the key starting material in artemisinin combination therapies (ACTs), the most widely recommended treatment for malaria. The main source of artemisinin is agricultural, which is highly dependent upon uncertain growing conditions. As a result, the global market for artemisinin has been subject to price and supply volatility. Semi-synthetic artemisinin (SSA) is an alternative source of artemisinin which can help reduce the overall volatility of the market. To date, however, the price of SSA has been higher than the current price of vegetal artemisinin, resulting in limited use of SSA in ACTs. CII collaborated with the President's Malaria Initiative and the Global Fund—the two largest purchasers of ACTs—as well as the Clinton Health Access Initiative (CHAI) to create incentives for manufacturers of ACTs to use SSA in addition to vegetal artemisinin. In the short term, SSA helps diversify the supply of a critical ingredient for ACTs; in the long run, this can stabilize the global supply and pricing of both artemisinin and ACTs.



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

GLOBAL HEALTH FINANCING ACROSS A DIVERSE SPECTRUM OF CAPITAL



CII's recent report Investing for Impact outlines practical tools across this spectrum.

Donors with a strategy to engage with different sources of capital across the new landscape of development finance will be well positioned in the years to come to maximize their impact.

SOME EXAMPLES:



Lulama – In developing countries, pharmacies play an important role in healthcare delivery, including of life-saving commodities. However, inadequate business skills, poor systems, and limited access to working capital prevents many pharmacies 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 Lulama partnership provides independent pharmacies with access to working capital, a fixed basket of pharmaceutical and front shop goods, and technical assistance. In 2017, a pilot of the Lulama platform was completed in South Africa, and discussions on next steps are underway.



Financing Alliance for Health – Community health is a critical component of strong health systems and is essential to achieving universal health coverage and meeting the SDGs. CII, in partnership with the Financing Alliance for Health, developed *Closing the \$2 Billion Gap*. This analysis quantifies the funding gap for community health, strengthens the knowledge base around the need for community health financing and draws lessons learned from two examples—Zambia and Ethiopia—on innovative financing pathways. This work is designed to help governments, donors and other partners develop and strengthen country-level financing pathways for community health.



INNOVATIVE FINANCING

SPOTLIGHT:



DEVELOPMENT IMPACT BOND THE UTKRISHT BOND

The Utkrisht Bond named for the Hindi expression for “Excellence”— is one of the largest and most ambitious development impact bonds to date and is the first to address maternal and newborn health. Impact bonds are an innovative way to finance development. They are entirely focused on outcomes, align stakeholder incentives to operate more efficiently and cost-effectively, and have the potential to leverage private investor capital to address some of the world’s greatest challenges.

The Utkrisht Bond aims to reduce the number of maternal and newborn deaths by improving the quality of care in private health facilities in Rajasthan, India. In this financing structure, private capital from the UBS Optimus Foundation will cover the upfront costs of improving the quality of health services in approximately 440 private health facilities in Rajasthan; HLPFPT and PSI will use that working capital to help the private facilities meet government quality standards. As outcomes payers, USAID and Merck for Mothers will pay back this investment only if certain targets are met. This pay-for-success approach ensures appropriate stewardship of US taxpayer dollars, while unlocking both private capital and government resources for health. If successful, the State Government of Rajasthan has agreed to continue supporting the bond after the initial 3-year pilot, providing a path to long-term sustainability of these activities and results. Due to increased access to life saving supplies, appropriately trained staff, and the improved ability to address complications in labor, this effort has the potential to reach up to 600,000 women and newborns over five years.



“The Utkrisht impact bond is groundbreaking. It takes a business approach to development, while targeting basic needs like improving the quality of care.”

– Mark Green, Administrator,
USAID



Photo: Development Impact Bond/Paul Joseph Brown/GA.PPS





IDENTIFY & APPLY CUTTING-EDGE PRACTICES

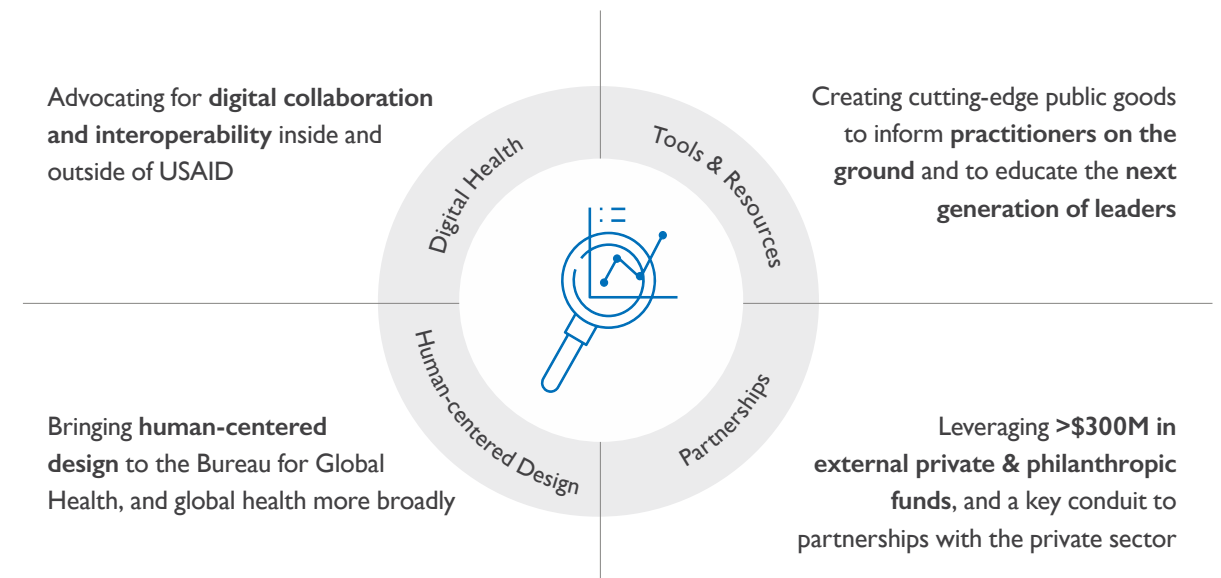
At CII, we are constantly evaluating what works and applying these forward-looking practices to USAID's health investments. To do so, we identify and apply cutting-edge practices to our work and share these best practices with the broader global health community. We amplify our expertise by engaging diverse perspectives and luminaries in the public, private, and academic sectors across four main areas:

- Digital health
- Cutting-edge public goods
- Partnerships
- Human-centered design

“CII has provided foundational guidance for innovators and partners working to develop innovations at scale to tackle the world’s most pressing health challenges.” – Steve Davis, President and CEO, PATH



THROUGHOUT OUR WORK, WE BRING CUTTING-EDGE, INNOVATIVE PRACTICES TO OUR PARTNERS IN GLOBAL HEALTH



DIGITAL HEALTH

The rapid spread of affordable communications technologies to almost every corner of the globe is creating powerful opportunities to strengthen public health. These advances include: enabling direct, remote communications with health workers and patients; improving the availability and quality of data for public health decision-making; and creating new efficiencies and accountability in health service delivery.

Effectively leveraging tools and approaches that harness digital technologies is critical to building strong health systems and improving public health. CII works with teams in the Bureau for Global Health, across the Agency, and in the wider community to apply a strategic lens to the implementation of digital health tools and approaches. This includes:

- Applying established good practice in the use of technologies for digital development to the global health context through the curation of new USAID digital health guidance
- Building digital health capacity of staff through the creation of reference tools that support the operationalization of digital health guidance
- Advocating for the integration of good practice into donor and implementer digital health activities through forums such as the Health Data Collaborative Digital Health & Interoperability Working Group
- Building capacity externally through the identification and curation of a series of digital health “global goods” that support the strategic evolution of low- and middle-income countries’ health systems as they transition from paper to digital environments

SOME EXAMPLES:



Digital health total cost of ownership tool – Millions of dollars have been invested in digital health information systems in low- and middle-income countries. Increasingly country governments and donors are recognizing the value of leveraging existing platforms—particularly ‘global goods’ technologies, many of which are built using open source software—to bring proven tools to scale in a sustainable manner. The *Digital Health Total Cost of Ownership* tool provides, for the first time, a methodology for calculating both the value of current investments in digital health global goods available for adaptation and reuse, as well as the cost for their implementation on a country basis. This tool can help governments, donors, and implementers of health programming alike calculate the most strategic use of limited funding.



Digital health investment review tool – The Digital Health Investment Review tool is a global public good—a tool collaboratively developed by and for a diverse set of stakeholders including public and private donors, government decision-makers, and implementing partners. It bridges staff capacity gaps in the design and procurement stage of health projects by presenting foundational questions financiers of digital health activities can include in calls for proposals, and an accompanying scorecard to rate the ensuing responses in submitted proposals.

Supported by a collaboration between the Bureau for Global Health’s Maternal and Child Health Office, CII, and the Maternal and Child Survival Program, the tool integrates principles like human-centered design and software reuse and adaptation, that can increase the likelihood that funded digital health activities are sustainable and can achieve desired goals.



CUTTING-EDGE PUBLIC GOODS

CII created a series of practical guides and actionable tools for the broader global health community. These goods provide guidance on how to address barriers that prevent the development, introduction, and scale-up of innovative technologies aiming to reach the most vulnerable populations.

IDEA TO IMPACT SERIES

Global health innovations have long been challenged by late introduction and slow scale-up. Consolidating best practices and lessons learned from the public and private sectors, CII's IDEA to IMPACT series shares guidance to help practitioners scale global health innovations and accelerate impact through better coordination and earlier planning, business model design and partnership evaluation, and country-level planning for launch.



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.



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



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



INVESTING FOR IMPACT SERIES

The landscape of global development finance is changing. Official development assistance is no longer the dominant source of capital in many of USAID's priority countries, yet it remains vital to support their advancement. CII's Investing for Impact series provides USAID staff and other development practitioners with educational and practical resources about trends in development finance, non-traditional approaches to financing global health, and frameworks to help identify when and how to apply innovative financing and market shaping interventions to solve complex global health challenges.



Investing for Impact examines trends in development finance and highlights ways in which USAID is leveraging private investment and applying non-traditional approaches to finance the achievement of our global health goals.



Closing the \$2 Billion Gap quantifies the funding gap for community health, strengthens the knowledge base around the need for community health financing and draws lessons learned from two examples—Zambia and Ethiopia—on financing pathways to secure additional resources.



Market Shaping Primer provides a framework for diagnosing and addressing market shortcomings to facilitate a healthy market that can efficiently deliver health products.



The Financing Framework is a toolkit for sustainably financing USAID's maternal and child survival goals by 2035. The framework defines a path to helping identify financing constraints within the health ecosystem, as well as the solutions and tools to address them.



CUTTING-EDGE PUBLIC GOODS

Download the latest versions of these tools from CII's website www.usaid.gov/cii.

OTHER CII RESOURCES

CII's additional resources look at new innovations and technologies and assess the opportunities and cost-effectiveness for developing and scaling them in the global health context.



UAVs in Global Health: Defining a Collective Path Forward applies CII's IDEA to IMPACT framework to identify key opportunities for near-term investments and predict long-term challenges as unmanned aerial vehicles (UAVs) scale, in addition to providing an investment roadmap for donors to coordinate their investments strategically to shape and accelerate this market.



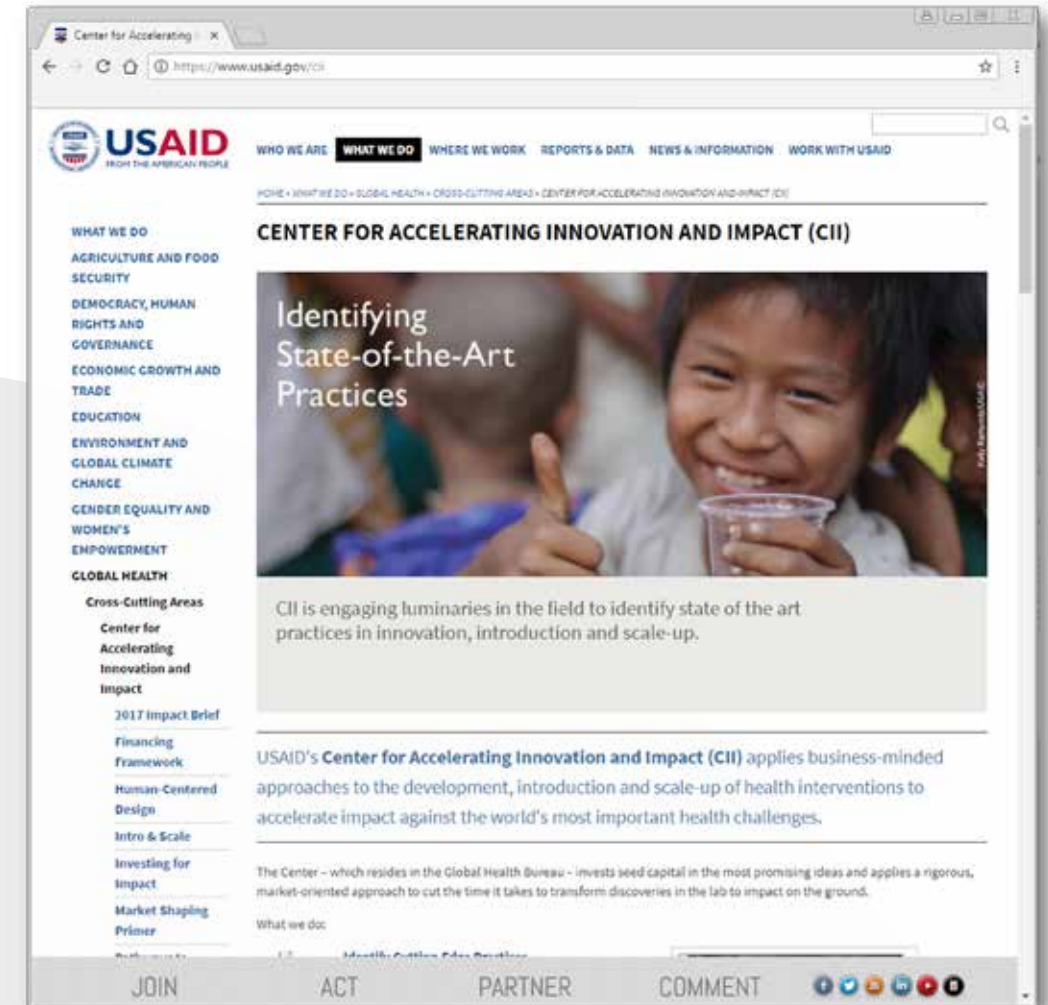
HCD global good: CII and the Bill & Melinda Gates Foundation co-lead the development of a public good on human-centered design (HCD). The public good provides guidance around when, why, and how HCD can be used in global health, as well as a strategic roadmap outlining priority activities on how partners can collaborate to demonstrate and amplify its appropriate use.



Business school teaching cases: CII partners with Northwestern's Kellogg School of Management to develop global health teaching tools for graduate business students, including case studies on Chlorhexidine scale-up in Nigeria and fighting childhood pneumonia in Uganda. These cases have been used in global healthcare case competitions and are part of curricula at several leading MBA programs.



Digital Health Total Cost of Ownership Tool: Part of CII's Digital Health Series, the Total Cost of Ownership tool helps governments, donors, and implementing partners calculate the value of digital health investments and the cost of implementation.



PARTNERSHIPS

Partnerships are central to the efficacy and sustainability of many global health solutions. CII, in partnership with the Bureau for Global Health, uses a framework to assess opportunities for partnership. Acknowledging the maturity stage of an engagement is key to effective management and cultivation of partnerships. As a partnership matures, considerations, expectations, and appetite for risk-taking will shift. It is important to consistently revisit assumptions as an engagement develops.

Partnership activities are uniquely positioned to accelerate and catalyze USAID's **global health impact goals**.



EXPLORE

Early stage partnership exploration; light touch engagement



CURATE

A developing collaboration where engagement has been refined; collaborators have set work streams with defined goals



PROVE

Strong model of partnership has been identified; pilot project executed to test value and impact of collaboration



SUPPORT

Best model of partnership has been identified and piloted—the value and impact are clear for all collaborators; this model is further tested through scale in other environments/countries



GREATER SCALE

Reach more of the target population by drawing on private sector resources and expertise or by accessing private sector channels



HIGHER EFFICIENCY

Operate more efficiently or cost-effectively by adapting private sector expertise, skills or tools



MORE VALUE FOR MONEY

Achieve procurement savings from more competitive markets that facilitate access to health products and open or expand markets for commercial actors



ENHANCED SUSTAINABILITY

Enhance USAID program sustainability with handover strategies, revenue-generating business models, and commercially viable local private sector partners



PARTNERSHIPS

CII has developed several flagship partnerships with the private sector to bring relevant expertise to our global health work.

PARTNERSHIP

PARTNERSHIP DESCRIPTION

PARTNERS

GOAL



Works with Ministries of Health **to build capacity for effective leadership & management practices** and serve as a conduit for relevant **private sector know-how and resources**, with a focus on supporting the scale up of CHW systems.



The Financing Alliance for Health is a **multi-sectoral partnership** committed to working with governments, donors and the private sector to **develop and scale sustainably financed community health systems**.



The GSK | Kellogg | USAID Global Health Case Competition pushes the boundaries of what's possible at the intersection of doing good and doing well. This first-of-its-kind competition **unleashes the power of management and business principles to identify cutting-edge and sustainable solutions** to tough global health challenges, **helping build and connect future generations of global business leaders**.



Applying Coca-Cola's **core business expertise** in supply chain and marketing to address the **sporadic availability of essential medicines and other health commodities** at the lowest levels of the health system.



PARTNERSHIPS

CII's **Grand Challenge** model provides critical support for health innovations in their early stages so that they are effective and sustainable opportunities that attract partnership with the private sector to accelerate their time to market. Some examples:



PATH/Laerdal

The Nifty Feeding Cup, supported by Saving Lives at Birth, is a simple, life-saving technology that incorporates special design features such as a unique reservoir and flow channels that allow infants to lap or sip breast milk at their own pace. The cup, developed and designed through a collaboration between the University of Washington, Seattle Children's hospital, and PATH, helps increase optimal milk intake in the shortest time, with minimal spillage, and allows women to express breast milk directly into the same soft silicone cup the infant uses. PATH partnered with Laerdal Global Health to allow the cup to be sold at cost to hospitals in Malawi, Tanzania, and elsewhere. According to an article in The Lancet in 2016, the scaling up of breastfeeding to a near-universal level could prevent 823,000 deaths annually of children younger than five years of age.



GlaxoSmithKline (GSK) and Monash University

Every year, over 100,000 women die of postpartum hemorrhage (PPH), a condition of excessive blood loss after childbirth. Although PPH can be effectively prevented or treated with an injection of oxytocin, access to this drug is limited due to the requirements for refrigeration, storage and trained medical personnel for administration. With funding from Saving Lives at Birth, Monash University has developed a novel **aerosol delivery system for oxytocin** that can be inhaled by patients from a simple, disposable device immediately after childbirth. Monash received a multi-million dollar investment from a global pharmaceutical leader, GSK, to help make this important drug accessible in the markets that need it most. The marriage of Monash's technical expertise with GSK's experience in drug development has the potential to save the lives of mothers around the world.



Becton, Dickinson & Co. (BD) and the World Health Organization (WHO)

The Odon Device, designed by an Argentine car mechanic named Jorge Odón, aims to address maternal and newborn deaths associated with prolonged or complicated second stage labor. This device received Saving Lives at Birth seed funding for development and testing by the WHO. In 2013, Becton, Dickinson & Co. (BD) licensed the Odon Device for manufacturing and global distribution. BD continued to work with WHO's Human Reproduction Programme (HRP) and other research partners to evaluate the safety and feasibility of the Odon device. Moving forward, BD is working with collaborating organizations on a go-to-market plan for introduction of the device in several countries.



Johns Hopkins University Center for Bioengineering Innovation and Design (JHU CBID), Jhpiego, and DuPont

The 2014 Ebola epidemic demonstrated a critical need for improved personal protective equipment (PPE) for health care workers. Using the principles of human centered design, JHU and Jhpiego worked together to design a **PPE ensemble** that would improve health care workers' visibility and comfort as well as reduce their risk of being exposed to Ebola by increasing the efficiency of the doffing process. DuPont, one of the largest PPE manufacturers, saw the potential in the new PPE designs and signed a licensing agreement with JHU in September 2015. The partnership with DuPont has ensured that the new hoods and coveralls are designed to meet basic cost and manufacturability requirements.

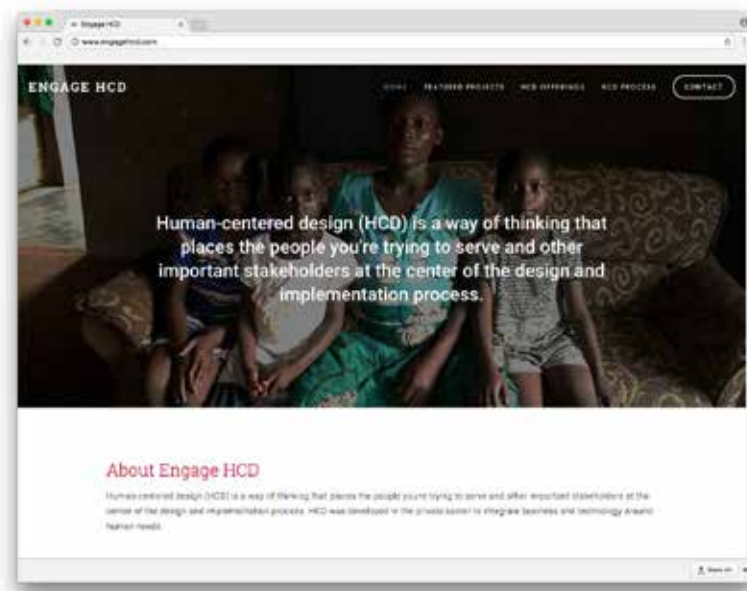


HUMAN-CENTERED DESIGN

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. Through a human-centered design approach, focus is placed on understanding the people, traditions, and context that inform behavior—which then guides the collaborative development of concepts likely to shift behavior to the best outcome.

CII, in partnership with the Bureau for Global Health, is more deliberately applying HCD to our work by actively engaging end users, providers, and other key constituencies, throughout our work to ensure that their needs and expectations inform design decisions and lead to a higher likelihood of adoption and lasting impact.

CII's website www.EngageHCD.com captures and shares learnings from this work across USAID and the broader global health community.



SOME EXAMPLES OF OUR WORK IN HCD:



Sustained use of the dapivirine ring – USAID, in partnership with the International Partnership for Microbicides (IPM), used HCD to design assets aimed at increasing the adoption and sustained use of the dapivirine ring—the first long-acting woman-controlled method for reducing the risk of HIV infection—in sub-Saharan Africa.



Innovative direct-to-consumer approaches for adolescents – USAID led a HCD project that sought to learn more about how to reach adolescents with fertility awareness knowledge and family planning methods through direct-to-consumer channels in partnership with private sector actors.



Redesigning personal protective-equipment – CII worked with Fighting Ebola Grand Challenge innovator International Personnel Protection to use HCD to refine the product features of their redesigned personal protective equipment suit, collecting user feedback from frontline Ebola healthcare workers in Sierra Leone.

HUMAN-CENTERED DESIGN

This work provides the wider global health community with the emerging evidence base for why design should be used in global health; clarity around how it should be used; and the tools and a roadmap to develop and disseminate these learnings.

SPOTLIGHT:



HCD FOR GLOBAL HEALTH ADVANCING ITS APPROPRIATE USE

USAID and The Bill & Melinda Gates Foundation (BMGF) have been at the forefront of applying HCD in global health. Our teams have partnered to lead the development of public goods to advance the appropriate use of HCD in global health. These public goods build on a convening—HCDUncut—that BMGF and CII co-hosted, bringing together roughly 50 donors, implementing partners, and design practitioners to co-create a strategic path forward for the application of HCD in global health.

These public goods—co-created with a diverse set of stakeholders across the public and private sectors—include a strategic roadmap outlining priority activities that partners can take on to advance the appropriate use of HCD in global health, detailing opportunities across a range of topics:

- Defining, differentiating, & communicating
- Refining practice & method
- Preserving integrity & quality
- Learning & sharing
- Training & education
- Data & evidence
- Structuring & funding



OUR GLOBAL IMPACT

Our work is global in nature and touches the lives of people in **over 35 countries**.

TOP COUNTRIES WE WORK IN AND NUMBER OF PROJECTS:

SIERRA LEONE (17)
LIBERIA (16)
KENYA (14)
GUINEA (14)
INDIA (12)

NUMBER OF COUNTRIES BY AREA OF WORK:

INNOVATION: 33
MARKET ACCESS: 25
PARTNERSHIPS: 12

WE PARTNER WITH USAID MISSIONS:

■ INNOVATION:

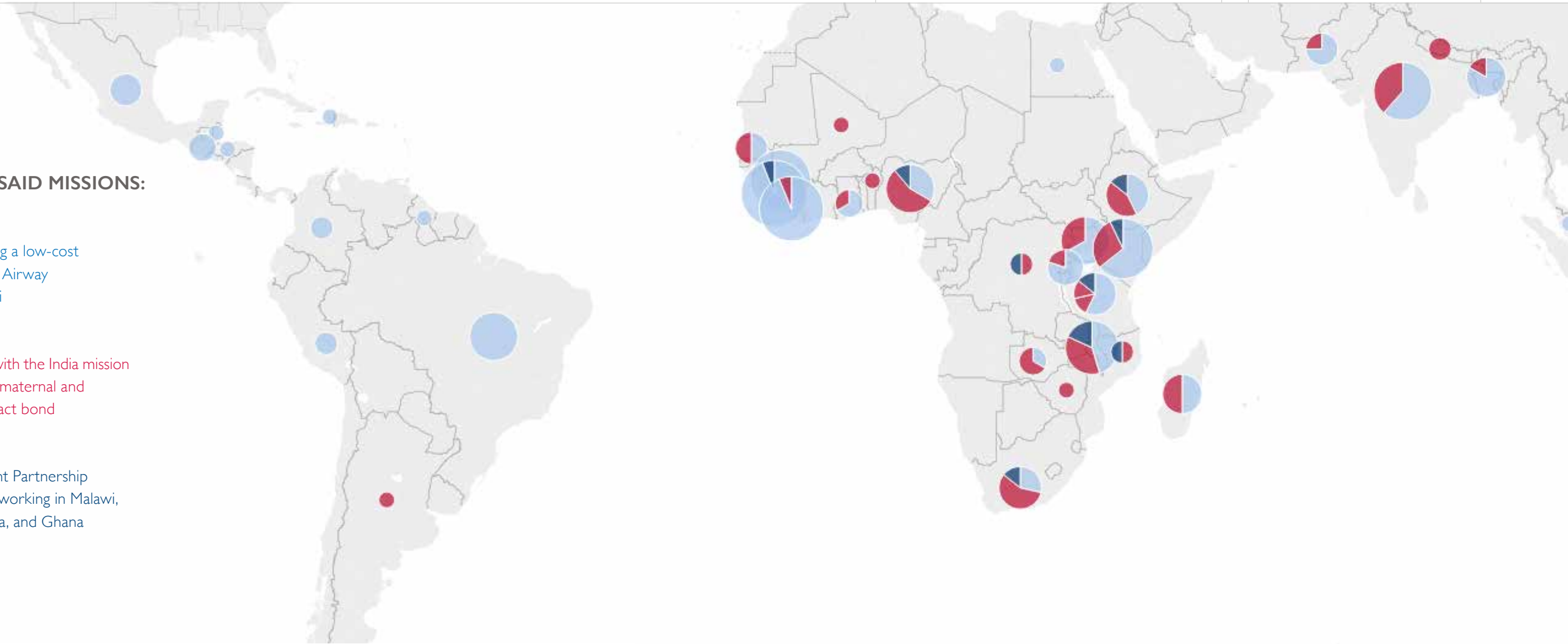
e.g., Rice University, is scaling a low-cost bubble Continuous Positive Airway Pressure (bCPAP) in Malawi

■ MARKET ACCESS:

e.g., CII and partners work with the India mission to implement the first ever maternal and newborn development impact bond

■ PARTNERSHIPS:

e.g., The Aspen Management Partnership for Health (AMP Health) is working in Malawi, Sierra Leone, Kenya, Zambia, and Ghana



LOOKING AHEAD: TACKLING GLOBAL HEALTH CHALLENGES

CII remains steadfast in our belief in the role that innovation and business-minded thinking play in meeting our shared ambitious health goals. As such, our focus will 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 and new ways of doing business—by investing in those innovations that both have the potential to make transformational progress and improve our core ways of working
- Engaging new partners in new ways that allow us to accelerate progress and leverage additional resources.

As we continue our work, CII will double down on these competencies to ensure USAID's global health innovation leads to impact.

INNOVATION REALIZED:

Ebola survivor Marvin Kai is a technician at St. Joseph's Catholic Hospital in Monrovia, Liberia. He is a direct beneficiary of our work harnessing the collective ingenuity of innovators around the world. Marvin, and others like him, remind us why we do this work and the importance of **turning innovation into impact**.

To learn more about his story, go to USAID's YouTube page and watch our video: *The Fighting Ebola Grand Challenge: Innovating in a Crisis*.

