



### **ABOUT HDIF**

HDIF aims to identify and support innovations that have the potential to create social impact in education, health and, water, sanitation and hygiene (WASH) across Tanzania. With a focus on market driven solutions, HDIF catalyses the development, testing and scaling of innovative models of service delivery, information and communication technologies for development (ICT4D), and product solutions in health, education and WASH.

### **THREE MAIN COMPONENTS**

### **INSPIRING**

Inspiring quad-aligned networking and strategic awards that cultivate the innovation ecosystem in human development.

### CATALYZING

**Catalyzing** the diffusion of innovations in human development.

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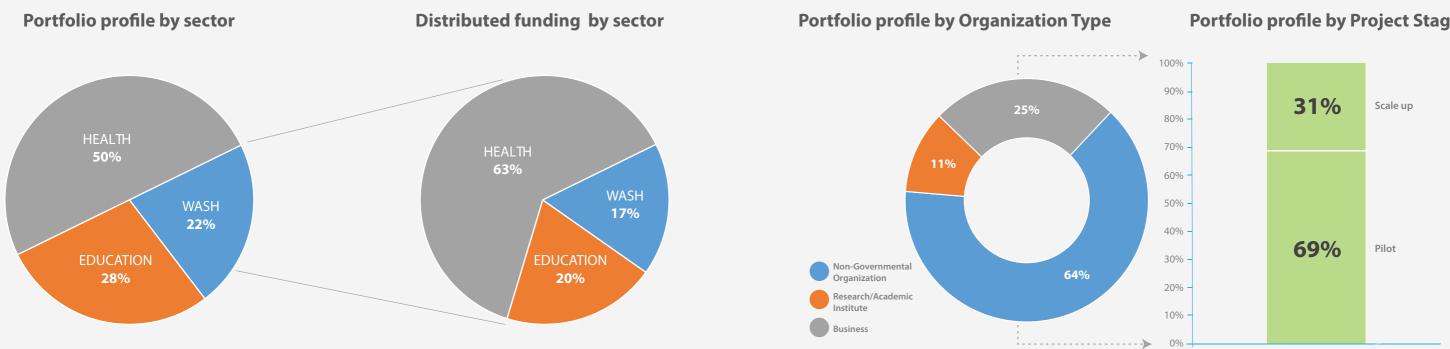
Transforming the focus and quantity of evidence available

TRANSFORMING

to key stakeholders on the practice of innovation in human development.

### **PORTFOLIO**

To date HDIF has hosted 2 rounds of funding, since its launch in May 2013. A total of 1,620 applications have been received and 36 projects have been approved for funding. HDIF's portfolio is spread across 20 regions in Tanzania.



### Portfolio profile by Project Stage

Photo Credit: Fredrik Rosman, Studi Academy

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## **EDUCATION**

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### Anza Entrepreneurs

Partner(s)
<b>Project Title</b>
Region
Period

Silverleaf Academy Limited Moshi Affordable Schools Kilimanjaro and Arusha 36 months

Innovation This project, over the next three years, intends to establish Silverleaf Academy as a new affordable, high quality pre-primary and primary private school chain in Tanzania. The project intends to open and operate two new schools, serving over 1,000 children from low income families in and around the Arusha and Kilimanjaro regions. The schools will deploy a tablet-based English Medium curriculum and a blended learning instructional model, whilst piloting different infrastructure solutions to bring down costs and enable a rapid scale-up. The ultimate goal is to provide bottom-of-the-pyramid families a choice of affordable effective schooling, whilst creating a financially sustainable and operationally scalable social enterprise.

### Camfed Tanzania Limited

Partner(s)	World Reader   Kiva
<b>Project Title</b>	Technology-supported Learning
Region	Iringa
Period	32 months

Innovation The cross-sector collaboration between Camfed Tanzania and Worldreader pioneers the use of technology to address the challenges of the primary to secondary school transition in Iringa District. In mainland primary schools, children learn all their subjects in Swahili. When they move on to secondary schools the language of instruction shifts abruptly to English. Children and youth struggle to complete the critical Form 2 exams, which are set in English and determine whether they will progress through school. With Worldreader, Camfed Tanzania is addressing this issue by introducing e-reader technology at 25 partner secondary schools in Iringa, bringing support in basic literacy, tailored learning resources, and supplementary reading materials to 4,500 Form 1 students. Children are supported in using e-readers by trained Learner Guides drawn from Camfed's alumnae volunteer network, who are recent graduates of the same education system. During their time as Learner Guides, the young women and girls also access business training and the opportunity to take an interest-free small business loan from microfinance partner Kiva.



Photo Credit: Ihunyo Nzogere, HDIF



### Christian Social Service Commission

Partner	Studi Academy
Project Title	eLearning for Secondary Schools
Region	Mbeya, Morogoro, Tabora, Mwanza and Arusha
Period	24 months

**Innovation** CSSC is enhancing the performance of Secondary education in Tanzania through the introduction of Studi Academy's e-learning platform. 50 private schools associated with CSSC and a number of public schools supported by CSSC partnerships (such as British Council and Life Institute). The project prepares for a scale up and impacting large numbers compliance and contextualization. The primary partner in this collaboration is Studi Academy—a startup private sector company providing the technology and business model. Teachers will be trained on the teachers will be provided with tablets. The teachers the platform for individualized training and online aligned videos in both English and Swahili, guizzes, and a number of class-management tools for the teacher to monitor class and individual performances. The platform tracks all activity of each student and

### Dageno Girls Center

Partner(s)	None
Project Title	Akiba Community Collaboratory
Region	Arusha
Period	36 months

**Innovation** Dageno Girls Center is a residential educational center in Karatu, Tanzania for adolescent girls in the surrounding villages who are at high risk of early marriage, teenage motherhood, HIV infection, and exploitative pathways in life. Dageno Girls Center's curriculum is grounded in girls-centered design thinking. The learning approach is collaborative and problem and project-based, where girls learn to formulate questions and seek their own answers using principles of design.

With HDIF, Dageno is introducing a hands-on STEAM (science, technology, engineering, art, and math) makerspace for out-of-school girl youth to gain practical experience with new technologies and innovative processes. Girls learn in a flexible, collaborative environment, making their learning physical by applying science, technology, math, and creativity to design, experiment, invent, solve problems, and build things. The Collaboratory aims to transform the idea of education from a rote means of getting a certificate, to a process of thinking and doing to earn income and solve community problems from within, getting girls off the streets and into creating jobs for themselves.

### 🕨 Digital Opportunity Trust 🛛 🕨 Fundación Paraguaya (DOT) Tanzania

Partner(s)	Vocational Educational and Training
	Authority (VETA)
<b>Project Title</b>	ICT, Entrepreneurship and Leadership
	Education to Youth
Region	Dar es Salaam and Morogoro
Period	24 months

Innovation DOT is integrating its two acclaimed programs that use a unique peer-to-peer, social learning model to embed change in schools and communities. TeachUp! brings innovative use of technology, new learning methods and digital skills content to the classroom and ReachUp! brings digital skills, workforce skills and entrepreneurial empowerment to out-of-school, out-of-work community youth. VETA and DOT are extending the role of three VETA centers and transform them into community learning hubs serving both students in the formal vocational education system, and out-ofschool youth in the surrounding communities. The community-based component of the project serves as a motivating gateway for disadvantaged youth to appreciate the opportunities that vocational training offers. Importantly, the technology platform connects youth from different segments of society, encourages collaboration and sharing of experiences, and builds peer-to-peer self confidence-the "network effect." The intent is to serve 600 VETA students, 120 VETA trainers, and 1,600 out-of-school youth through this pilot.

Partner(s)	University of Minnesota   Mastercard Foundation		
Project Title	Entrepreneurship Business Clubs	and	Innovation
Region	Iringa		
Period	26 months		

Innovation Fundación Paraguaya is setting up 45 Business Clubs (BCs) in 30 government secondary schools in Iringa Region, a largely rural region with great unmet social needs for youth and jobs. The project will ultimately serve 1,350 secondary school students from different religious and tribal backgrounds (approximately about 50% girls) and train 135 secondary school teachers as BCs mentors. This initiative will improve educational outcomes by: (1) enabling low-income youth to acquire knowledge, competencies and attitudes necessary for employmentand/or entrepreneurship in the modern, competitive economy, missing from secondary school curricula; (2) giving teachers "hands on" experience, using upto-date socio-constructivist teaching techniques that they will then share with fellow teachers and apply in their classrooms; and (3) generating BCs income to reinvest in resource-strapped schools.

The University of Minnesota will assist the team ensure effective design, learning, and iteration by carrying out a robust M&E program. This programme builds off initial successes supported through Mastercard Foundation as part of its corporate social responsibility and passion for youth entrepreneurship.



, Digital Opportunity Trust (DOT)



### Sense International East Africa

Partner(s) Project Title	Sense International Tanzania Piloting an Innovative Approach to Inclusive Education for Children with Deaf blindness in Tanzania
Region	Dar es Salaam and Kilimanjaro
Period	36 months

**Innovation** Sense International is helping children with deafblindness to acquire educational knowledge to ultimately get included in mainstream schools in Tanzania using the following innovative 2-step inclusive education model: 1) Children with deafblindness are prepared for school, through home-based education provided by parents and supported by mainstream teachers; 2) Children with deafblindness are included in mainstream classrooms, with teaching assistants providing communications support. In both steps Special Education Needs (SEN) teachers provide technical support and training to teachers, teaching assistants and parents.

### Shule Direct

Partner(s)	Eneza Education   Millicom
	International Cellular
Project Title	Makini SMS
Region	Countrywide
Period	24 months

**Innovation** Shule Direct, a Tanzanian start-up content for youth and teachers in secondary schools mobile telecommunications. In partnership with Eneza Education and Tigo Tanzania, Shule Direct is a mobile learning and revision platform called "Makini integrated with Eneza Education's technical platforms students across Tanzania, access to quality education and anywhere. Tigo Tanzania is an early believer in Shule Direct, having provided early stage support through its CSR competition, Digital Change Makers, which is implemented in collaboration with Reach for Change.

### **Ubongo**

None
Interactive Edu-Cartoons for School
Readiness
Countrywide
24 months

Innovation Ubongo Media is a start-up soci enterprise in Dar es Salaam that creates interactiv edu-cartoons watched by over 5 million kids in Ea Africa. Following the success of their primary scho cartoon Ubongo Kids, HDIF has supported Ubongo create "Akili and Me," and multi-platform edutainment series that helps young children develop school readiness skills through fun learning on TV and radio. "Akili and Me" is now broadcasting daily on Tanzanian national TV with up to 1.3 million households watching each day. Ubongo has developed and is rolling out complementary mLearning services for both basic mobile phones and smart phones. These will allow caregivers to access anytime, anywhere fun learning content for their children. With HDIF's support, Ubongo is also conducting rigorous research to assess the impact of watching "Akili and Me" on cognitive development and school readiness of 4-6 year olds in Tanzania.

### World Vision Tanzania (WVT)

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•	Partner(s)	Tanzania National Parks (TANAPA)
		Ministry of Education, Science and
		Technology   Cisco   Intel   Vocational
		Education Training Authority
ial		(VETA)   Microsoft   Small Industries
ive		Development Organisation (SIDO)
ast		Ministry of Labor and Employment
ool	<b>Project Title</b>	Cycle of Transformation
to	Region	Arusha, Manyara, Kilimanjaro, Tanga,
ent	_	Dodoma, Morogoro and Dar es
ool		salaam
lio.	Period	36 months
IO.		

Innovation WVT has pioneered an innovative ICTbased solution for youth education, leadership, and digital employment initiative called "Cycle of Transformation." The Cycle of Transformation is made possible through a unique cross-sector collaboration between WTA, TANAPA, MoEVT, TechnoBrain, Team4Tech, and the WTA. A cycle is established by investing resources to train in-school and out-ofschool youth in entrepreneurship and technology skills, who are then expected to establish schoolbased, student-run companies to produce marketable products needed by their community in the Arusha Region. These products are sold to customers to generate resources to train more students. The experienced youth become qualified as teachers in the next cycle. The cycle then repeats and grows. In the process, youth gain work-based learning skills in technology, marketing, accounting, and leadership.



Photo Credit: Ubongo Kids



### HEALTH

### Amref Health Africa

Partner(s)	GlaxoSmithKline (GSK)   Vodafone	Partner(s)
	Mezzanine   Ministry of Health,	
	Community Development, Gender,	
	Elderly and Children	
Project Title	mVacciNation - Boresha Chanjo	
Region	Geita and Shinyanga	
Period	24 months	Project Title

Innovation Amref Health Africa and its partners will implement mVacciNation – Boresha Chanjo, a mobile health technology solution that will complement Tanzania's MOHCDGEC Vaccine Inventory Management System (VIMS). Boresha Chanjo will provide immunization and stock related data from primary health care facilities that will complement immunization information services focused at regional and central level. The project aims to reduce morbidity and mortality caused by vaccine preventable diseases in children by (a) improving surveillance (b) providing visibility on stock levels (c) providing visibility on cold chain conditions. The project will be tested in the Geita and Sinyanga Regions of Northern Tanzania.

### Apopo Vzw

Region

Period

Operation ASHA (OpASHA) Mapambano ya Kifua Kikuu na Ukimwi Temeke (MKUTA) | National Tuberculosis and Leprosy Program (NTLP) | National Institute for Medical Research (NIMR) Towards a tuberculosis free Dar es oject Title Salaam with T3: Test, Treat, and Track Dar es Salaam 36 months

Annually 6,000 Tanzanians die due Innovation to tuberculosis, more than 65,000 suffer from the disease, only 50% of the most infectious patients are detected, and many of those detected fail to complete treatment. To bridge these gaps, APOPO deploys giant African pouched rats to detect tuberculosis in human sputum samples. Detection rats are 40 times faster and up to 25% more sensitive than microscopy done in public clinics. The dual implementation of better and faster diagnosis and digitized patient tracking through OpASHA's eCompliance technology could ultimately make a significant and trackable impact in overall tuberculosis burden in Dar es Salaam. Apopo is setting up a TB testing laboratory in Dares-salaam where samples will be tested and results communicated.





### Association of Private **Health Facilities in** Tanzania (APHFTA)

Partner(s) Region Period

**Project Title** Afya Microfinance Mbeya and Iringa 48 months

**Innovation** APHFTA is an umbrella organization of private sector health care providers in Tanzania. Recently, APHFTA established a loan programme providing affordable-loans for the health sector in Tanzania. With HDIF support, APHFTA is formalizing specialized microfinance institution called AFYA Micro Finance Company Limited (AMiF). AmiF is providing affordable-loans for the health sector in Mbeya, Rukwa, and Iringa—with the purpose of improving quality healthcare and health management systems. AMiF Drug Dispensing Outlets (ADDOs), pharmacies, dispensaries, small clinics, healthcare training centers etc. The loans range from TShs. 500,000 to TShs. 20 million and are designed for working capital (e.g., newborn and child health (MNCH) equipment, increasing the stock level of basic commodities and drugs, procurement of computers and other ICTs, and financing renovation, new services, and expansion) and growth (e.g., financing expansion and upgrade).

### Comprehensive **Community Based Rehabilitation in Tanzania** (CCBRT)

Partner(s)	Kabanga Mission Hospital	
Project Title	Improving Health Management	
	through an Integrated Management	
	System	
Region	Dar es Salaam	
Period	24 months	

**Innovation** CCBRT is a local organisation working in partnership with the Government of Tanzania to usher the nation toward a future free of maternal CCBRT is Tanzania's largest provider of disability and rehabilitative care. In 2012 the hospital began using lean management strategies in order to provide a superior quality of service to patients at the lowest possible cost. With HDIF's support, CCBRT is refining other health care providers in Tanzania. A model cell approach has been adopted to demonstrate change and encourage learning within the hospital through focusing on the Eye Out Patient Department (OPD). As the unit with the highest volume of patients, it has the potential to benefit the most from improvements in efficiencies. The model is also being rolled out through CCBRT's partnership with Kabanga Mission Hospital in Kigoma Region and with training and support it is now undergoing its own lean transformation.

### Dimagi, INC

Partner(s)	FHI 360   Association of Private Health Facilities in Tanzania (APHFTA)   Invention and Technological Ideas Development Organization (ITIDO)
Project Title	Smart Decision mLabour: Mobile Technology for Improving Intrapartum Care
Region Period	Countrywide 24 months

**Innovation** Dimagi aims to improve the quality of care delivered to women during labour and delivery throughout Tanzania by providing a comprehensive, easy-to use, real-time, decision support digital tool, mLabour, that can reduce maternal, perinatal, and newborn mortality. Dimagi will work with a range of partners in Tanzania to scale the tested tool to at least 5 organizations and the health facilities with which these organizations work.

# Elizabeth Glaser Pediatric Aids Foundation (EGPAF)

D-tree International   Nzega District Council
Improving mother-baby pair tracking
across the continuum of care through
the use of a mHealth application
Tabora
18 months

Innovation An Android phone-based application called the Moby (MOther baBY) App, developed by EGPAF and D-Tree as a mother-baby pair health service provision and tracking tool, combines decision-support for health providers with the ability to create electronic patient records in the MNCH setting in Tanzania hence addressing the challenge of lack of timely, accurate, and complete patient information that allows health providers to follow mothers and their infants along a continuum of care (CoC). The data aggregated by the App will produce a real-time, patient-level database with site-level reporting features that are linked to the national reporting system (DHIS2). The project will facilitate a transformative shift in the delivery of comprehensive maternal, newborn, and child health (MNCH) in Tanzania. Moby App will be rolled out to 53 facilities to achieve full coverage in Nzega district and expand the utility of the Moby App as a decision support tool between the health facilities and the district authorities.





Photo Credit: Sproxil



### Health Insurance Management Services Organization (HIMSO)

Partners(s)	Centre International de Développement et de Recherche (CIDR)
Project Title	Innovative PPP to improve health emergency transport and referral from the villages to and between the health facilities
Region	Mbeya
Period	30 months

Innovation Through its Innovative Public Private Partnership (PPP) with HIMSO, CIDR will improve health emergency transport and referral from the villages to and between the health facilities in 4 districts of Mbeya region (Mbozi, Kyela, Busokelo and Rungwe) through four innovation components: (i) Technological and information management innovation through an emergency call and information platform; (ii) Product innovation; (iii) Institutional innovation through a co-managed Emergency Transport System; and (iv) Financial innovation through resources from a microinsurance emergency transport product, private companies and public funding.

### Ifakara Health Institute (IHI)

Partner(s)	In2Care
Project Title	Eave tubes/bricks
Region	Morogoro and Dar es Salaam
Period	24 months

**Innovation** IHI, a Tanzanian research institution, and In2Care BV, a Dutch social enterprise developing collaborating to commercialize research. The partners are scaling up a mosquito control technology ("Eave Tubes") that was developed and field tested with European Union funding in Kilombero, Tanzania. Eave Tubes are plastic pipes ('tubes') which are fitted in walls underneath the roof of houses 'eaves'. Mosquito entry is prevented by insecticide-treated electrostatic netting fitted inside the tube. For modern buildings in peri-urban areas the program has developed the 'eave brick' that can be inserted in the space of individual bricks. This mosquito control technology has the following advantages: (1) reduces indoor of electrostatic netting kills 100% of the mosquitoes WHO-recommended insecticides; 3) kills even insecticide-resistant mosquitoes; 4) protects the entire household; and (5) uses very small amount of netting and insecticide per house, 95% less than a bed net making this a green and affordable approach. The vision is to accomplish a broad uptake of Eave Tubes/ Bricks in Tanzania and beyond to maximize impact on malaria transmission.

### Ifakara Health Institute (IHI)

36 months

Part	tner	(S)
Proj	ject <sup>·</sup>	Title

Region

Period

Romotive, Inc. | University of Glasgow Emergency aerial delivery of blood and lifesaving medicines in rural Tanzania: the Stork autonomous unmanned aerial delivery system Dodoma

Innovation The project intends to provide rapid aerial delivery of life-saving emergency medical supplies. The team will employ Stork, a proven autonomous Unmanned Aerial System, to make rapid, on-demand aerial deliveries of Emergency Medical Products including blood and urgent medicines to rural health facilities, many of which are impossible or too costly to reach using traditional means. Ground transportation in rural Tanzania is severely restricted with poor road infrastructure and washed out or impassable roads due to flooding and environmental conditions. Moreover, vehicles and manpower for delivering health supplies are extremely limited and cannot meet current demand or respond to emergency situations. Stork bypasses the need for ground transportation infrastructure altogether. The Stork system is the first system of its kind in Tanzania, and Romotive is the only company in the world focused specifically on longrange emergency medical delivery in developing countries.

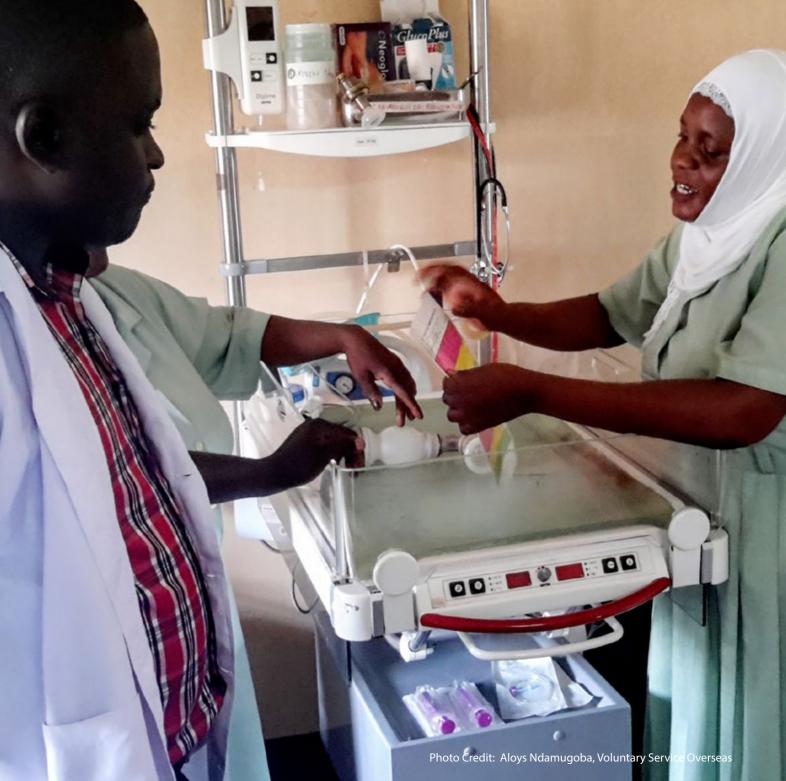
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Partner(s) **Project Title** 

Region Period

Massachusetts General Hospital Every Second Matters for Mothers and Babies – Uterine Balloon Tamponade Scale Up in Tanzania Kagera and Mara 48 months

Innovation Massachusetts General Hospital has developed an effective Postpartum Hemorrhage (PPH) tool, the Uterine Balloon Tamponade (UBT), which has been effectively tested, researched, and rolled out in Kenya with positive results for mothers. The partners are introducing the UBT package in 150 health facilities in Mara and Kagera regions, with the goal of reducing the number of deaths due to uncontrolled PPH, a common cause of maternal mortality in Tanzania. The innovation also introduces a PPH training curriculum that incorporates the World Health Organization and the International Federation of Gynecology and Obstetrics standards for PPH management, including the UBT. The ultra low-cost (less than \$5) uterine balloon kit consists of a condom tied to a Foley catheter and inflated with clean water through a syringe and one-way valve. The project involves key policymakers, e.g., Ministry of Health and Social Welfare, on the lessons learned related to the safety and effectiveness of the UBT rollout and scaling throughout Tanzania.





### Muhimbili University of Health and Allied Sciences (MUHAS)

Partner(s)	lfakara Health Institute (IHI)
	Comprehensive Community Based
	Rehabilitation in Tanzania (CCBRT)
	Deloitte Tanzania   Management and
	Development for Health (MDH)
Project Title	Newborn Screening for Child Survival
	– Sickle Cell Disease
Region	Dar es Salaam
Period	36 months

**Innovation** Building on existing MUHAS programmes related to sickle cell supported, in part, by the Wellcome Trust, MUHAS is establishing a population based new-born screening (NBS) program to identify children at birth with Sickle Cell Disease (SCD) and other non-communicable diseases (NCDs). The main elements to the program are: (1) awareness raising and health education on SCD and NBS with focus on pregnant women; (2) NBS for SCD to 100,000 babies; (3) comprehensive care for children under 5 with strengthening of education and training on SCD and NBS for health workers; and (4) strengthening health systems and policy development for NBS. The program is being implemented in Dar es Salaam in collaboration with Amana Hospital, Temeke Hospital, Mwananyamala Hospital, and Muhimbili National Hospital.

### PharmAccess International

Partner(s)	Christian Social Service Commission
	(CSSC)   Association of Private Health
	Facilities in Tanzania (APHFTA)   Private
	Nurses and Midwives Association
	(PRINMAT)
Project Title	The Business of Quality in Health: A
	Sustainable Change to the Health
	Market in Tanzania through SafeCare
	Quality Standards
Region	Countrywide
Period	36 months

**Innovation** Recognizing that strong quality priority health outcomes, PAI developed the SafeCare methodology in a formal partnership between PAI, the Council of Health Service Accreditation of Southern Africa (COHSASA), and the Joint Commission International (JCI). HDIF is supporting PAI and its private sector collaborators CSSC, PRINMAT and APHFTA to scale up SafeCare, the only methodology in Tanzania with standards for basic healthcare facilities at the bottom of the pyramid ranging from village health posts, to dispensaries, health centers and district hospitals. The standards of SafeCare enable the healthcare providers facilities to measure and improve the quality, safety and efficiency of their services that will lead to accreditation. PharmAccess have also included an additional Maternal, Newborn and Child Health (MNCH) service delivery component, building on the HDIF supported clinic network that will be quality improved and evaluated through SafeCare and receive business training and loans through the Medical Credit Fund.

### Pyramid Pharma

Partner(s)	None
<b>Project Title</b>	DawaPlus
Region	Njombe, Mbeya, Shinyanga, Kagera and Morogoro
Period	24 months

Innovation Pyramid Pharma is a commercial enterprise with over 14 years of experience importing and distributing high quality pharmaceuticals, medical equipment, and laboratory equipment. With HDIF, Pyramid Pharma is introducing DawaPlus, a national franchise chain of Accredited Drug Dispensing Outlets (ADDOs), that is transforming access to essential medicines in Tanzania and how entrepreneurs across Tanzania participate in the healthcare sector. DawaPlus is Tanzania's first vertically integrated pharmaceutical supply chain that integrates import, wholesale, and retail functions. The economies of scale and scope achieved through the DawaPlus network overcomes current inefficiencies in the pharmaceutical value chain, thus providing superior access to affordable, high-quality medicines in Tanzania.

### Shirati KMT Hospital

Partner(s)Bruyère Research Institute; AMREF<br/>Health Africa (AMREF) | Canadian<br/>Physicians for Aid and Relief (CPAR)<br/>| Medic Mobile and Relief (CPAR);<br/>Medic MobileProject Title<br/>RegionDawaPlus<br/>Njombe, Mbeya, Shinyanga, Kagera<br/>and MorogoroPeriod30 months

Innovation Shirati Hospital and its partners Bruyère Research Institute, AMREF, and CPAR are increasing maternal and child survival in Tanzania by packaging key ANC tools into an integrated programme model. Components of the innovative integrated package include training traditional birth attendants and dispensary nurses with knowledge and skills to provide safe pregnancy education to pregnant women, and distributing Clean Delivery Kits that include with misoprostol. The innovative combined programme further improves the role of these health workers by introducing Medic Mobile's mobile health (mHealth) platform that creates a scalable system that: (1) improves registrations and collects data about the delivery experiences of expectant mothers; (2) monitors and coordinates the treatments provided to women and the outcomes of these treatments while ensuring that all health workers have sufficient supplies; and (3) provides a management and analysis system generating evidence-based data for information and results tracking.



Photo Credit: Eyo Akpon, Voluntary Service Overseas



### Sproxil

Partner(s)	None
<b>Project Title</b>	Mobile Product Authentication (MPA)
Region	Countrywide
Period	36 months

**Innovation** Sproxil, a US headquartered social enterprise, uses mobile technology to combat counterfeiting and increase brand equity with innovative, consumer-focused product protection and targeted marketing solutions. Already rolled out in other countries such as Nigeria and Kenya, Sproxil has developed a Mobile Product Authentication (MPA) service that safeguards consumers by giving them the tools to differentiate between fake and genuine products through the use of any mobile phone. Before purchasing a product, the consumers scratch a label to reveal a unique, one-time use code. They then SMS text the code to a secure number provided on the product package. Within seconds, Sproxil notifies the end user, via SMS, of the result. This innovation is especially relevant in sub-Saharan markets like Tanzania, where it is estimated that one-third of malaria medicines are fake.

## Voluntary Service Overseas (VSO)

Partner(s)	GE Healthcare   Ifakara Health Institute
	(IHI)   Push Mobile
Project Title	ACT! Accelerated Care and Treatment
	for Mothers and Neonates in Tanzania
Region	Lindi and Mtwara
Period	36 months

**Innovation** VSO is scaling up an innovative program neonatal deaths in Tanzania. Leveraging on VSO's experience piloting and its extensive technical program are: (1) scale up screening and referral of at risk neonates through the use of Newborn Triage Checklist (NTC) to assess neonates during their first 48 hours and make speedy referrals if needed;(2) establishing low cost Neonatal Intensive Care Units (NICUs) at regional and district hospitals for care and with GE health care and IHI, integrating early screening V-scans (ultra-portable ultrasound device) to support management of emergency obstetrics care through a private sector collaboration with GE Healthcare; and (4) leveraging an SMS platform (mHealth) to remind pregnant women of their Antenatal Care (ANC) visits or appointments and to screen neonates during the first 28 days with a simple checklist for mothers.

# Totohealth Tanzania

Partner(s) Project Title

Region

Period

Totohealth Company Limited Improving maternal, newborn and child health through SMS-based health education, Clean Delivery Kits and Newborn Maternity Packs Kilimanjaro and Arusha 30 months

Innovation Totohealth aims to contribute towards reaching Tanzania's vision of ending preventable maternal and child deaths by 2035. They use a comprehensive and interactive package of life saving products to help reduce maternal and child morbidity and mortality, including early detection of disabilities and developmental abnormalities in children under 5 years. Their multi-component intervention includes: Maternal Newborn Child Health (MNCH) information and education (using SMS) and life saving products (at delivery and forhome-use) for mother and baby. Totohealth has created a proven solution in Kenya with just over a year of successful roll-out and is now ready to push these successful solutions in Tanzania.

# Vecna Cares Charitable Trust

Partner(s)	Mnazi Mmoja Hospital   Ministry of
	Health Zanzibar
Project Title	Electronic medical Records System for
	Mnazi Mmoja Hospital
Region	Zanzibar
Period	30 months

Innovation In partnership with Mnazi Mmoja Hospital and The Zanzibar Ministry of Health, Vecna Cares will customize and deploy the CliniPAK, a streamlined patient registration, intake, discharge and reporting Electronic Health Records system at Manzi Mmoja Hospital. The main aim of this is to enable point of care data collection as well as streamlined reporting and data sharing to improve access to care for patients and set a basis for data based decision-making. The project also hopes to begin the process of creating a longitudinal health record for each patient seen at Mnazi Mmoja for better quality of care and to improve health outcomes. Further, this project will also leverage on CliniPAK's unique interoperability features to find innovative ways to allow patients to access to their own patient information via their mobile phone.



Photo Credit: Eyo Akpon, Voluntary Service Oversea



## WASH

### Bremen Overseas Research Scatholic Relief Services **Development Association** (BORDA)

Partner(s)	lfakara Health Institute (IHI)
<b>Project Title</b>	'DEWATS for Dar': A pioneering
	community latrine emptying and
	Decentralized Wastewater Treatment
	Solution (DEWATS) for Dar es Salaam's
	un-served urban communities
Region	Dar es Salaam
Period	36 months

Innovation The DEWATS for Dar product innovation seeks to empower local entrepreneurs by providing start-up loans, technology transfer and infrastructure to solve community sanitation challenges in a financially sustainable way in Dar es Salaam. The model uses locally manufactured latrine emptying tools, simple transportation, a decentralized sludge treatment/transfer site and tools to provide accessible pro-poor latrine emptying services building on a already existing business model currently operating in Kigamboni. In successfully scaling-up the model, 'DEWATS for Dar intends to create direct health, social, environmental and economic benefits for 54,000 to 90,0000 beneficiaries in challenging unserved communities and to improve overall sanitation and mitigate risks of water born illness and death, especially amongst women and children.

Partner(s)	Grundfos	Diocese of
	Developmer	nt Department
<b>Project Title</b>	Remittance Recovery in Water	
Region	Manyara	
Period	30 months	

Mbulu

**Innovation** CRS and its local partner, the Diocese of Mbulu Development Department, have joined with pioneering water technology firm, Grundfos, in a cross-sector partnership to introduce Grundfos' LIFELINK solution for sustainable water supply in peri-urban communities in Karatu District. Grundfos LIFELINK is a water dispenser that is attached to a water point that regulates when water is distributed. The dispenser operates in conjunction with the monitoring system to support technical and financial reporting of water service operations and overcomes revenue mismanagement by transacting all payments through mobile money and SmartCards, thereby establishing a clear paper trail. CRS is strengthening the Grundfos LIFELINK technology and leveraging the data that the system generates by providing comprehensive capacity building support services for water system administration, financial management, and water governance. CRS is also facilitating stronger relationships between neighboring Community Owned Water Supply Organizations (COWSOs), Grundfos LIFELINK, and the district water and sanitation team to contribute to sustainable services and scale-up.



Photo Credit: Geoffrey Kayega, MSABI



# Investing in Children and their Societies (ICS)

Partner(s)	Susteq
Project Title	Prepaid Solutions for Sustainable
	Water Services
Region	Shinyanga
Period	27 months

Innovation Susteq is a Dutch start-up social enterprise that has developed a system that enables a water suppliers to sell water credits to licensed water credit sales points, which can be any shop keeper with a mobile phone. The shop keeper pays the water supplier (here, ICS) through mobile phone transfers, before water credits can be downloaded. Once downloaded, water credits can be sold to the consumers. First, people buy a prepaid, reusable card. With a special device the shop keeper transfers credits to the prepaid cards. With these cards people go to the prepaid water points and fetch water. By means of this automated payment system, members check their account online and receive a monthly update through a text message on their mobile phone. All credit and water transactions are followed online that facilitates quick action in case of leakages or illegal connections.

### 🕨 Maji Safi kwa Afya Bora Ifakara (MSABI)

Partner(s)	WellDone Solutions	International	Visible
Project Title		Program and	Pump for
Region Period	Morogoro 24 months		

Innovation MSABI, a Tanzanian NGO focusing on the convergence of entrepreneurship and water, is validating and scaling regionally a subscriptionbased system for water point maintenance, branded Pump for Life. The system consists of maintenance and repair services in exchange for a monthly or annual subscription premium. An Information and Communication Technology (ICT) water point surveillance-response system is used to monitor distribution and functionality of water points, subscription premium payments, and track spare part usage and water point history. In addition, MSABI is partnering with WellDone to test and validate their innovative low-cost Mobile Monitor (MoMo) technology that provides near-real-time visibility of water point functionality, utilizing a similar automated SMS delivery mechanism. Through this cross-sector collaboration, the innovations are being linked into the ICT water point surveillance-response system being developed by Visible Solutions to provide a simple and largely self-reporting water point management tool for Tanzania.

### Nelson Mandela African Institute of Science and Technology

Partner(s)	Gongali Model Company Limited
	A-Z Textiles Mills Limited
<b>Project Title</b>	Adoption of low-cost sustainable
	water filters (Nanofilter) for purifying
	drinking water at Point of Use (PoU)
	for under- served community in
	Arusha region
Region	Arusha
Period	36 months

**Innovation** This Project aims to impact 100,000 under-served people living in the Arusha region over a 3 years period through the adoption of an innovative low-cost sustainable water filter. The filter selectively removes any water contaminant (bacteria, chemicalcontaminants, turbidity, organic-matter) and produces 10 liters/hour of clean and safe water. The filter is locally manufactured and will be customized to local needs. It reduces waterborne diseases and dental fluorosis by increasing access to safe and clean water. The targeted people will be reached through establishment of 1,000 water stations to be operated by local entrepreneurs who will sell water to community members at an affordable price.

### **SimGas Tanzania**

Partner	None
<b>Project Title</b>	Bio-Sanitation Systems for Schools
Region	Kilimanjaro, Arusha, Tanga and Dar es
	Salaam
Period	36 months

**Innovation** SimGas is a social enterprise offering affordable, high-quality biogas systems for household use. With HDIF, SimGas is adapting its existing modular biogas technologies to realize a safe and affordable solution for human feces disposal and production of clean biogas at primary and secondary schools. Field trials are being conducted in 3 schools with proof of concept to initially 27 more secondary schools. Biosanitation system organic waste is used to produce valuable goods like biogas and fertilizer, which are resources that remain unused with current systems. With testing and fine-tuning the bio-sanitation system (with SimGas biogas digester parts), a strategy is being developed on how to upscale the innovation. The strategy focuses on innovative management systems whereby the business model generates incentives for proper operation and maintenance of the installation. Knock-on benefits of SimGas' introduction to schools include potential long-term cost savings, alternative revenue sources for schools, and direct training of youth in the science and business of biogas.



Photo Credit: Georgina Goodwin, Freelance Journalist



### **SNV** Tanzania

Partner(s)	University of Dar es Salaam   University	
	of Twente   Geeks Without Bounds	
Project Title	Revolutionizing the information	
	infrastructure of public services	
Region	Iringa, Mara, Morogoro and Njombe	
Period	24 months	

**Innovation** SNV in collaboration with University of Dar-es-salaam (UDSM), the University of Twente (UT) and Geek Without Bounds (GWOB) is revolutionizing the information infrastructure of public water services in Tanzania, through two parallel tracks. First, it improves the ICT by which real time reports on the functionality of public Rural Water Supply (RWS) can be collected, disseminated, analysed, and visualised at different stakeholder levels. Second, the innovation facilitates behavior change among relevant stakeholders in RWS to ensure responsiveness to and demands for functionality of water services. This is undertaken through tailored capacity development with a focus on the full cycle of information exchange at all institutional levels of public water supply—including data collection, communication, visualisation, and understanding—and form demands for new data collection. The overall goal is to reduce the down time taken in response to operation and maintenance of water systems and hence increase access of safe water to communities.

### Southern Highlands Participatory Organisation (SHIPO)

Partner(s) Project Title

Region Period

Basic Water Needs (BWN) Carbon credits for low-cost water filter businesses in Tanzania Njombe, Mbeya, Iringa, Morogoro 36 months

**Innovation** SHIPO and its partner BWN, aim to increase sustainable access to safe drinking water in Tanzania. To do this they have developed a new model to scale up the use of Household Water Treatment and Safe storage (HWTS) products. This model combines effective, attractive and affordable water filters with awareness and a sustainable supply chain for filters and spares which will continue after the project period. This model is based on experiences from a pilot project in the Kagera Region in Tanzania, in which carbon credits are claimed for every filter sold by trained, local entrepreneurs. The scale up of this profit model and the sustainable access to Household Water Treatment and Safe Storage (HWTS) solutions will result in a combination of awareness on the benefits of water treatment, the scaling up of a proven effective, attractive low cost water filter, and the creation of a commercial viable supply chain. It is anticipated that HWTS, specifically ceramic filters, in combination with awareness raising campaigns can lower waterborne diseases by as much as 50%.

### Human Development Innovation Fund

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