HEALTH INNOVATION EXCHANGE

Building the future of global health through innovation

INNOVATIONS
at the Marketplace
2020

#HIEx2020
healthinnovation.exchange

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ACCESS • IMPACT • INVESTMENT

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CONTENTS

INTRODUCTION

While new solutions for health are emerging in different parts of the world, these do not always get adopted on scale to deliver impact. The disconnect between innovators and implementers needs to be bridged by a neutral facilitator that can connect across countries and sectors for health impact.

The Health Innovation Exchange (HIEx) identifies challenges faced by implementers and connects them with innovations that have high potential for impact. It also links with investors to scale up the efforts and develop sustainable solutions. The HIEx builds upon and shares the expertise of countries, global health actors, innovators, communities and the private sector and advocates for indigenous solutions, local production and multi-sectoral partnerships.

Launched by UNAIDS in Geneva, Switzerland in May 2019, the HIEx is a global entity founded on a shared commitment that no one is left behind in the journey towards the SDGs. The HIEx forges a community of political leaders, decision makers, health experts, technology and science leaders, innovators, investors, accelerators and implementers and all those who can share, explore and synergize efforts for sustainable impact.

The Health Innovation Exchange is about

- *Creating connections* between innovations ecosystems and health leaders
- *Access* to new technology and innovative solutions responding to pain points identified by countries
- Ensuring that *investments* deliver for countries, communities and people
- Driving *impact* for the SDGs

THE HEALTH INNOVATION MARKETPLACE 2020

This year, the Health Innovation Exchange annual event is going fully virtual. The COVID-19 pandemic has quickly changed the world around us and the ways we work. The pandemic has also made us realize, perhaps more than ever, the crucial importance of ensuring our health systems are strong and that countries have the necessary technologies and capacities to respond to health challenges. We are also seeing an unprecedented wave of fast-paced innovation from both public and private sectors, as the world stands up to fight this epidemic.

This year's Health Innovation Marketplace showcases a variety of innovations from across the globe. These solutions respond to some of the most critical challenges faced by countries and communities, particularly in the global South, as they strive towards the SDG3 targets. The lineup also includes solutions that address the COVID-19 response.

In the following pages, you will discover the innovations from the Health Innovation Marketplace 2020. To find out more about any specific innovation or to explore partnerships, contact the Health Innovation Exchange through healthinnovation.exchange

Inclusion in the Health Innovation Exchange Marketplace does not equal endorsement of the innovation by UNAIDS or the HIEx.

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A C C E S S • I M P A C T • I N V E S T M E N T

Alibaba CT Image Analytics for COVID-19

Alibaba Group, China

https://www.alibabagroup.com/en/global/home

AI technology providing CT image analysis for COVID-19

INNOVATION STAGE: In the market and ready to scale

When precision and pace are required, CT Image Analytics for COVID-19 can assist health workers by significantly improving the testing accuracy and detection efficiency rates.

Alibaba's CT Image Analytics for COVID-19 technology can assist in identifying characteristics of coronavirus pneumonia in CT scans with about 96% accuracy. It is 60 times faster than human detection methods, taking less than four seconds to run each test and transmit the data. More than 160 public institutions in China are currently using this technology. As of March 14, 2020, the system has already analyzed more than 240,000

CT image volumes (around 13,000 per day on average).

This technology relies on cutting-edge deep learning algorithms, which have been trained using 5,000 cases to understand the differences between COVID-19 pneumonia, common pneumonia, and other conditions. This advanced technology can also estimate the proportion of pulmonary lesions for those affected by COVID-19.

Alibaba Medical Insight

Biovitae

Nextsense, Italy

https://www.biovitae.it/en/

UV free LED lighting technology killing viruses and bacteria. Safe for humans.

INNOVATION STAGE: In the market and ready to scale

BIOVITAE® is a patented UV-free LED microbicidal light that, thanks to the emission of specific wavelengths of the visible spectrum, sanitizes the environment and the surfaces from germs – without sterilizing, as it would be harmful to our health – and controls bacterial proliferation, acting in synergy with the natural resiliency of our immune system.

Biovitae is effective on all types of GRAM+ and GRAM– bacteria, fungi, spores, and molds. BIOVITAE® is not harmful to people or animals under prolonged and continuous use which is certified through its compliance with IEC 62778 directive. Furthermore, Biovitae has also recently been proven to be highly effective on the new coronavirus that causes COVID-19.

Biovitae is a game changer for the following reasons:

- It is effective on all types of GRAM+ and GRAM– bacteria, fungi, spores, and molds

- It reduces overusage of antibiotics and contributes to the fight against antimicrobial resistance

- Passive safety and requires no training as all that is required is the simple action of switching the light on.

- It is extremely scale-able as Biovitae comes in the form of a standard LED bulb (and can also be made in every other lighting fixture/form/shape) making it compatible with all current lighting systems. This allows Biovitae to offer real infection control in existing infrastructure.

Biovitae's versatility allows for a wide range of application areas such as at home in public places such as airports, airplanes, schools, offices, restaurants, hospitals, vehicles, gyms, intensive livestock farming, and food processing facilities, where there is a higher risk of outbreak of infections.

BIOVITAE®
THE LIGHT THAT PROTECTS YOU

Blood Stasis Technology

MagBio Genomics Inc., USA

http://www.magbiogenomics.com/

*Device for biosample collection, transport and ambient stabilization*

INNOVATION STAGE: In the market and ready to scale

The Blood STASIS™ 21-DNA/RNA is a plastic, evacuated tube used for collection, anti-coagulation, stabilization, transport, and storage of venous whole blood as well as for the preservation of blood genomic DNA (gDNA) and RNA. The Blood STASIS Technology consists of three products; Blood STASIS DNA/RNA, Blood STASIS CTC (Circulating Tumor Cells) and Blood STASIS ccf-DNA (circulating cell free DNA) that can be used for blood specimen collection, transport and storage.

Key benefits:

- gDNA are stable for up to 21 days at 4°C to 37°C

- RNA is stable for up to 7 days 4°C to 37°C

- High yield and high-quality genomic DNA and RNA

- Prevents effect of time, storage conditions on blood samples integrity

- Allows samples to be batched to improve laboratory efficiency

- Preserve and maintain sample integrity for 21 days

- Compatible with various extraction/purification techniques

- No formaldehyde fixative

MAGBIO

"WE MAKE NGS BETTER"
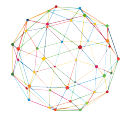
CareMother (AnandiMaa)

CareNX, India

http://www.caremother.in/

Personalized pregnancy and baby care solution for mothers and health care providers

INNOVATION STAGE: In the market and ready to scale

CareMother, is an innovative mobile maternal care program launched in 2015, designed for quality pregnancy care. The specific focus of the solution is to provide quality antenatal and post-natal Services to the marginalized population to reduce disparities in terms of affordability and accessibility. It is given to the frontline Health Workers who often lack the tools that could enable them to actively engage with the community and take up health intervention. In this context, CareMother acts as a unified platform to connect the pregnant woman to a remotely operable doctor through the health worker.

The solution comprises of a portable diagnostic kit, smart phone application and a real time web portal. The solution is designed with Artificial Intelligence and Machine Learning tools which automate the processes and establishes a real-time digital connection between the pregnant woman and the doctor. This allows early detection of high risk pregnancies and enables health care providers to take timely actions, saving many lives.

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CommCare

Dimagi, USA/Senegal

https://www.dimagi.com/sectors/

A mobile case management tool for tracking clients through a continuum of care.

INNOVATION STAGE: In the market and ready to scale

Dimagi's flagship technology platform, CommCare, is an award-winning, open source mobile case management platform that supports frontline health workers in tracking their clients through a continuum of service delivery. CommCare is used by 680,000 frontline workers around the world, who are cumulatively tracking tens of millions of people at the community level and submitting 5 million forms a day via the system.

By running as an application on a mobile phone, CommCare is built on a decision and logic-processing platform that can support partners in delivering a wide range of services. It provides critical data-quality checks and calculations at each point of service. The tool aims to help partners to track and support client registration and follow-up alongside the CommCare web.

The platform includes workforce performance monitoring dashboards designed to assist project managers in better supporting frontline workers as they deliver critical program interventions in the field.

The tool also can include multimedia and audiovisual prompts to convey important health messaging to beneficiaries during home visits made by the frontline health worker or during consultations at the health center. Additionally, CommCare can support SMS workflows to support reminders for health workers to follow-up on patients as well as to patients themselves.

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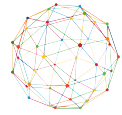
CoVawe (TimBre)

Docturnal, India

https://www.docturnal.com

Covid-19 pre-screening with the sound of the cough, and additional biomarkers

INNOVATION STAGE: Pilot Stage

"coVawe" is a screening tool that screens for Covid-19 & Pneumonia with the sound of the cough and other biomarkers (SPO2 and RR) & available in two variants:

1. DIY, Do it Yourself

2. Clinical Setting

The CoVawe application is inspired from TimBre. TimBre is a Tuberculosis screening application, developed by Docturnal, that screens for Pulmonary Tuberculosis & COPD with the sound of cough in a clincal setting

To combat the COVID-19 pandemic, CoVawe has been developed for active case finding through cough signatures and other biomarkers, relevant to specific lung condition.

It is currently available as a pre-screening tool and Docturnal is currently working to obtain labelled COVID-19 datasets to make it available as a screening tool in the near future. It can be used for both symptomatic and asymptomatic cases and provides a screening solution from the comfort of one's home (DIY) or with a microphone array at a clinical setup, with both alternatives requiring certain protocol to ensure safety and minimise the infectious nature of the virus.

CyberRwanda

YLabs, Rwanda

https://www.ylabsglobal.org/work/all/cyberrwanda

Self-care digital platform supporting adolescents to prevent unplanned pregnancy and HIV

INNOVATION STAGE: Pilot Stage

CyberRwanda uses digital education platform that improves the health and livelihoods of urban and peri-urban adolescents (12-19 years) by providing training in employment skills, HIV and sexual and reproductive health information, and linkage to SRH products and youth-friendly services.

CyberRwanda supports young people along their entire healthcare journey, linking them to health facilities, products, and pharmacy locators to provide high-quality, youth-friendly service.

Through the SHOP function, young people can purchase HIV and sexual and reproductive health products, complete medically necessary screenings online and receive secure code online and via SMS for pick-up. It also includes a geo-tagged service finder for all national clinics and networked pharmacies. It will be implemented and evaluated this year using a 3-arm cluster randomized controlled non-inferiority trial study which will be conducted in 60 schools across six districts in Rwanda.

Every aspect of CyberRwanda - from the intervention design, to the visual style, to the character names and FAQ content - was co-designed with over 800 Rwandan youth, parents, teachers, and service providers. This has helped ensure that the intervention is not only fun and educational but also that the content, tone and feel meet young people's information and support needs around teen pregnancy and HIV prevention. All content was reviewed, validated and approved through the appropriate government technical working groups in Rwanda.

y·labs

YOUTH
DEVELOPMENT
LABS

ePHealth Primary Care Solution

ePHealth, Brazil

ACCELERATE2030
Scaling Impact Globally

*Accelerate2030 innovation

https://www.ephealth.co.uk/

INNOVATION STAGE: In the market and ready to scale

A unique Primary Health Care platform with applications for Community Health Workers, Nurses, Primary Care Physicians, and a cloud based system Community Health Workers.

This platform has reached over 3.5 Million people, in 3,711 cities, in 1 million households, with more than 33,000 Community Health Workers. It is being implemented by 50 Cities 10 states in Brazil to enhance their health outreach. The solution is being applied in small rural cities in remote areas with 2000 inhabitants, to big urban cities like São Bernardo do Campo (SP), and

Paraisópolis Slum in São Paulo city, demonstrating its versatility.

EPHealth is currently partnering with Academic Research Organizations to enhance scientific evidence in Primary Care interventions at community level, especially for underserved areas.

ephealth

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FIND

Unima, Mexico

https://unimadx.com/

Fast and low-cost diagnostics for real-time disease surveillance.

INNOVATION STAGE: Go-to-market strategy developed

With Find, Unima is solving the problem of lack of access to a timely diagnostic for almost half of the world's population living in emerging and developing countries. Current diagnostic technologies are very precise and can detect almost any disease known, but these require specialized equipment and technicians that are scarce in these countries. This makes it almost impossible to scale up diagnostics to achieve universal coverage.

Unima has developed Find as a fast and low-cost diagnostic and disease surveillance technology. Find allows anyone to diagnose a disease directly where the patient is, without using lab equipment, with results in 15 minutes and at $1 USD per test.

With this technology, Unima is taking diagnostics out of the lab and into the most remote areas of the world.

With this platform technology, Unima is developing easy to use and low-cost diagnostic biosensors for global impact diseases like Tuberculosis, HIV, COVID-19, Dengue, Zika, Diabetes, etc which will impact the access to healthcare for hundreds of millions in the coming years. These tests will provide real-time disease surveillance information which will help governments and healthcare organizations to generate better strategies to stop disease outbreaks and pandemics. By using a novel "Diagnostic Platform as a Service" Business Model, this technology will support the work of international health organizations, health NGOs, governments and other stakeholders in Global Public Health.

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Fujifilm Silvamp TB-LAM

Fujifilm, Japan

https://www.fujifilm.com/news/n180927_02.html

A sensitive urine based point of care Tuberculosis test

INNOVATION STAGE: Pilot

FUJIFILM SILVAMP TB-LAM (FujiLAM) is a rapid highly sensitive urine-based point-of-care TB diagnosis kit that detects low concentrations of LAM-antigen in the urine of people with TB/HIV co-infection.

By applying FUJIFILM's unique silver halide amplification technology, the kit amplifies the virus marker included in the collective specimen in size, greatly increasing the visibility of the marker. This breakthrough technology is inexpensive, highly sensitive, and does not require large equipment or a power supply to operate, so it can be utilized in resource-limited settings in low- and middle-income countries.

Preliminary data was generated by testing retrospectively banked samples and it was found that FujiLAM clinical sensitivity across TB HIV+ patients was 71% compared to 35% for the current commercial LAM test. The FujiLAM assay is currently undergoing multicenter clinical trials in many countries to assess performance in various settings and indications for use to obtain WHO endorsement.

FUJIFILM

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Hellolyf CX Digital Dispensary

Glocal Healthcare, India

http://www.ghspl.com/

Safe Telemedicine with remote examination, instant investigations, automated medicine dispensing.

INNOVATION STAGE: In the market and ready to scale

Hellolyf CX Digital Dispensary is a pandemic safe installable telemedicine clinic that can be run without a doctor onsite to deliver comprehensive primary care including investigations & medication. It is a combination of:

1. Telemedicine (ensuring access of doctors through Video Consultation).

2. Internet of Things to ensure remote examination of patients through Digital Stethoscope, Otoscope,Rhinoscope, Laryngoscope, Fetal Doppler, ECG, etc.

3. Point of Care Diagnostics including Dry Biochemistry & Rapid Diagnostic Kits for instant investigations.

4. Clinical Decision Support System for Differential Diagnosis, Investigation Interpretation, Protocols & Drug Safety.

5. Automation for Medication delivery through Dispensing Machines.

These digital clinics can be set up in 250 square feet space and can be run with a trained nurse to and deliver doctor's consultation, examination, investigations and medication within 30 minutes. At approx. US$ 5 per patient, this not only makes it affordable and scalable rapidly makes it affordable and rapidly scalable but also an efficient, low cost and universal way to deliver quality healthcare.

These centers have been established in some of the most remote locations in India and have worked well. Over 3,30,000 patients have already been seen in the system. GPS based analytics allow a real time view of what diseases are emerging where and a CRM based system allows analysis of results to ensure evidence base for treatments.

hellolyf CX
Dr. DIGITAL DISPENSARY

Ilara Health

Ilara Health, Kenya

https://www.ilarahealth.com/

Equipping peri-urban healthcare providers in Kenya with essential diagnostic tools

INNOVATION STAGE: In the market and ready to scale

Affordable diagnostic tests are currently inaccessible to millions of people in Sub-Saharan Africa. Across the continent, 500 million people struggle to access even a simple blood test. Ilara Health, aims to empower patients through access to accurate, affordable diagnostics for their healthcare needs.

Ilara Health connects providers and patients to tech-powered, point-of-care devices in order to tackle underutilization of diagnostics locally. Ilara does this by building a decentralized network of trusted facilities that deploy its tools, so patients get the tests they need, where and when they need them.

The pay-as-you-go model allows providers to quickly adopt the devices, and affordably and accurately diagnose their everyday patients. Ilara also sees an incredible opportunity to leverage its existing model to strengthen the local primary care facilities in response to the COVID-19 outbreak.

Oky

UNICEF, Thailand (EAPRO)

https://okyapp.info/

A period tracker application for adolescent girls

INNOVATION STAGE: In the market and ready to scale

To break the stigma and shame surrounding menstruation and reproductive health, transform stress into empowerment, and provide information and period tracking directly to adolescent girls in the way they want it, UNICEF co-designed a digital solution together with adolescent girls.

Oky is the first mobile phone period tracker app for adolescent girls aged 10 to 19, built to the digital realities and requirements of girls in LMICs. Through user-centered design and co-creation, girls were the decision makers. They determined the look, feel, and functionalities of the digital solution. As a result, Oky is a gamified, light-weight mobile application for low end phones, that can function offline for low connectivity settings, includes read-out option and tutorials for low (digital) literacy, and allows girls who are sharing phones, in the family or with peers, to have highest data protection and privacy through multiple user login and password protection. Oky offers girls information about their periods in fun and creative ways; it uses period and body positive language, challenges gender stereotypes and celebrates diversity. Girls chose their avatar and personalized interface to log their periods and access evidence-based information, in girl-friendly, localized and entertaining language, also via quizzes, pop-ups and avatar messages. Oky also offers cycle predictions in responsible ways.

Girls also wanted an Oky information website for their parents, teachers and communities, to support them in using the period tracker app. Oky is non-commercial, girls will never be charged to download or use the app and there will be no advertising. Oky software and content is open-source, available freely for implementation and adaptation by partner and girls in other countries. To bring Oky to millions of girls around the world, Oky is designed to be girl-driven and scaled through implementing and contributing partners from all sectors to support Oky's growth.

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one2one Integrated Digital Platform (OIDP)

LVCT Health, Kenya

https://www.lvcthealth.org

Youth online service on HIV and SRHR using Stepped Care model

INNOVATION STAGE: In the market and ready to scale

One2one is a youth hotline that uses a Stepped Care Model to coordinate online and office services aimed at supporting adolescent and young people with information on HIV, SRHR, GBV and Mental Health. The Stepped Care Model (SCM) is an evidence-based, staged system, comprising of a hierarchy of interventions, from the least to the most intensive, matched to the individual's needs.

One2one's digital interventions includes general information tailored to the needs of young people as well as personalized information using a AI driven chatbot along with online peer educators providing support as required. The offline services are integrated and includes support through counsellors providing teleconsultations and face to face health services where required.

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Portal Telemedicina

Portal Telemedicina, Brazil

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Digital healthcare Center that provides diagnostics by doctors using machine learning

https://portaltelemedicina.com.br/en/

INNOVATION STAGE: In the market and ready to scale

Portal Telemedicina aims to mitigate the lack of access to quality healthcare due to the uneven geographical distribution of health professionals by providing reliable, fast, and low-cost diagnostics in over 300 cities in Brazil and Africa. Portal Telemedicina allows doctors to diagnose patients digitally using Artificial Intelligence and Machine Learning.

The Telediagnostic Platform integrates directly with medical devices, as well as RIS and PACs systems, capturing and transferring data directly from the device, through the Cloud, and delivering the diagnosis to the doctors within the Platform. Using AI automation combined with the interface's preformatted diagnostic buttons to minimize the need to type, enables doctors to diagnose 10x more exams per hour. The biggest advantage is that the system integrates directly with medical devices, which enables capturing and sending data from exams, through the cloud, to the specialist doctor, without human intervention. Finally, using Machine Learning algorithms to train the system in predicting medical findings, it is able to detect emergencies and triage the exams according to severity and risk. With innovative communication protocols and AI automation, Portal's solution enables interoperability. across systems by connecting and acquiring data straight from medical devices.

With more than 30 algorithms that automatically detect diseases, Portal Telemedicina also uses artificial intelligence to identify pneumonia caused by COVID-19. Portal's algorithm uses TensorFlow to analyze lung images and tell if a patient has pneumonia caused by the virus, with 95% accuracy.

PORTAL
TELEMEDICINA

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Project Lend an Arm

Project Lend an Arm, Nigeria

https://www.lendanarm.ng

Smart blood bank solution connecting banks, hospitals and donors.

INNOVATION STAGE: Go-to-market strategy developed

Every day in Nigeria, 145 women of childbearing age, and another 150 victims of road traffic accidents lose their lives due to not having access to safe blood. Patients with cancer or sickle cell disease fight an uphill battle daily as they are denied lifesaving transfusions "due to large deficits of available blood storage".

Project Lend an Arm uses a social strategy called 'herding', mobile technology, AI and IoT to ensure quick, stable supply of safe blood to patients in need. The solution integrates point-of-care technologies, drones and conversational AI to ensure donors, patients and hospitals in Nigeria can swiftly access blood anytime, anywhere using any device connected to the internet.

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Proximie AR

Proximie, United Kingdom

https://www.proximie.com

A platform to connect surgeons remotely in real-time.

INNOVATION STAGE: In the market and ready to scale

By remotely connecting surgeons in a live environment, Proximie facilitates proactive peer-to-peer learning and promotes the sharing of surgical expertise before, during and after surgery.

The platform is secure (HIPAA and GDPR compliant), lightweight and easy to deploy. A laptop, capture card and standard video camera are the only hardware required to obtain a video feed of the clinical environment. The live video feed can be accessed remotely by a clinician via the Proximie platform using a standard laptop and Chrome browser. The mentor can provide proctorship through verbal instructions and by using bespoke augmented reality tools.

This low cost, plug-and-play solution is already deployed in hospitals around the globe, completing more than 300 surgeries each month in 30 countries.

PROXIMIE

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Reach52

Reach52, Singapore

http://www.reach52.com/

Digital platform for coordinating health services, medicine delivery and insurance in rural areas

INNOVATION STAGE: In the market and ready to scale

Reach52 is a social impact organization radically transforming delivery models for primary care services in rural and remote areas of low- and middle-income countries using a digital public health approach. We are building the next generation virtual primary healthcare systems for the 52% of the world who still can't access essential healthcare services. We partner with governments, multi-laterals and non-profits, and the private sector to make healthcare solutions go further into communities where access is low or non-existent. Through our digital platform and locally deployed resources, we regularly coordinate door-to-door outreach programs; rural clinics; health promotion events; and mass screening campaigns, working to support residents along the continuum of primary care.

Reach52's approach addresses primary healthcare across a broad range of conditions and illnesses among remote populations, with a focus on reducing out-of-pocket payments and improving access to medicines. This is accomplished through use of community-integrated peer worker networks; innovative supply-chain management strategies; and our offline-first mHealth platform. As a result, reach52 is able to facilitate 'last-mile' availability of affordable medicines; micro-insurance, OTC products; and screening/diagnostic services; along with the extension of existing-but-centralized government services.

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Simprints Biometric Solution

Simprints, United Kingdom

https://www.ephealth.co.uk/

Biometric identification solution for last milehealth

INNOVATION STAGE: In the market and ready to scale

1 billion people lack official forms of ID, barring them from access to essential, life-saving services (World Bank 2019). The inability to accurately identify people costs lives, wastes resources, and prevents millions from escaping poverty.

Simprints' mission is to transform the way the world fights poverty. Simprints build technology to radically increase transparency and effectiveness in global development, making sure that every vaccine, every dollar, every public good reaches the people who need them most.

Simprints does this primarily through developing biometric fingerprint technology for use by governments, NGOs, and nonprofits for people

in the developing world who lack proof of legal identity. We promote a portable biometric system designed for front line workers and provide seamless project setup, robust identification tools and data analytics and support. The technology uses Bluetooth to connect to an Android mobile device that is interoperable with existing mHealth systems.

The inherent advantage of biometrics is that it is based on immutable characteristics that cannot be lost, forgotten, stolen, or duplicated. This guarantees uniqueness and ensures that every vaccine, every dollar, every public good reaches the people who need them most.

simprints
every person counts

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SnooCODE RED

SnooCODE, Ghana

http://www.snoocode.com/

Offline mobile system for reducing emergency response times.

INNOVATION STAGE: In the market and ready to scale

SnooCODE RED is a family of technologies for public health and emergency services built on the SnooCODE digital addressing system. SnooCODE RED enables emergency responders to determine the nearest ambulance or hospital to a case and navigate easily to the emergency scene, improving the response time and the case's chances of survival.

A private, memorable, 6-digit alphanumeric "SnooCODE" (e.g. COF-K8D) generated beforehand for the emergency site is shared with emergency responders, who input it into their "SnooCODE RED Control Centre" system to see the nearest, most appropriate ambulance station/ hospital for the case. Ambulance

drivers are also equipped with the "SnooCODE RED Dispatch" mobile app to navigate accurately to the case's front door.

SnooCODE RED is powered by the SnooCODE addressing system's accurate location, ultra-fast route optimization, compliance verification and proof of delivery functions, as well as integration into emerging and future technologies delivering greater efficiencies and impact.

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SOSO Care

SOSO Care, Nigeria

https://sosocare.com/

Low cost health insurance that accepts cash or recyclables as premium in 1170 hospitals.

INNOVATION STAGE: In the market and ready to scale

SOSO Care is a social enterprise for low-cost micro health insurance, which uses recyclable garbage as a financial resource to enable millions of uninsured slum dwellers, mostly women and children, by providing access to micro health insurance.

With pervasive poverty, poor healthcare financing and high maternal mortality, less than 3% of Nigeria's 200 million population have health insurance. Additionally, Nigeria generates over 34 million tons of waste and about 20 billion PET bottles are disposed annually, adversely affecting the environment. SOSO Care aims to bridge the two issues and enable millions of people to own a health insurance for as low as USD $1 or donate a

recyclable which can be sold and the proceed converted as their insurance premium. By linking garbage to healthcare access and food stamps SOSO Care is killing two birds with one stone as the solution addresses the following needs:

- Access to basic and inclusive healthcare to reduce infant and maternal mortality
- Improving sanitation & environment in slums and reducing plastic waste
- Creating jobs for the distribution network and waste collectors
- Access to micro capital
- Access to food stamps

Tasso OnDemand Blood Collection

Tasso, Inc., United States

www.tassoinc.com

Drs. Erwin Berthier and Ben Casavant founded Tasso to help transform the traditional, painful, in-person blood collection process, which has been the standard of care for more than 60 years. Today's surging demand for telemedicine highlights the shortcomings of a painful test procedure that requires the patient to be present at a healthcare facility. Tasso's approach focuses on the patient and offers a more convenient and virtually painless process.

The Tasso OnDemand devices enable people to collect their own blood without any training, all from the comfort and privacy of their home. The samples are then mailed to a CLIA-certified, high-complexity clinical laboratory for analysis. These fast and easy-to-use products are being adopted by leading academic medical institutions, government agencies, comprehensive cancer centers, and pharmaceutical organizations around the world for a wide variety of applications, including routine diagnostics, chronic disease monitoring, infectious disease surveillance, athletic and sports testing, virtual clinical trials, global health, and healthcare for under-served populations.

Tasso's OnDemand devices enable people to collect their own blood without any training, all from the comfort and privacy of their home. Advantages include:

- Clinical-grade quality
- Virtually painless process
- Easy-to-use, patient-friendly device
- Self-collection – no training required
- Seamless workflow – integrated logistics and shipping to CLIA-certified, high-complexity laboratory

Headquartered in Seattle, Washington, Tasso is privately held and funded by grants from the Defense Advanced Research Projects Agency, Defense Threat Reduction Agency, and the National Institutes of Health, by investments from Hambrecht Ducera Growth Ventures, Merck Global Health Innovation Fund, Foresite Capital, Vertical Venture Partners, Techstars, and Cedars Sinai, and by co-development deals with various industry leaders.

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The G-Tap

Tippy Tap, Kenya

http://www.tippytapkenya.org/

A Hand-washing device that multi-dispenses water and soap separately

INNOVATION STAGE: In the market and ready to scale

The three main barriers to hand washing practices at school level are cost of water, lack of facilities and soap disappearance/ wastage. The G-tap is a group hand washing device that dispenses water and soap separately serving up to 40 users simultaneously while saving over 80% of water, soap and time used per wash.

The device is made from locally available materials and has proved to increase hand washing behavior among pupils by over 70% within 5 weeks after installation. This G-Tap improves the health of children, reduces class absenteeism by averting communicable diseases and reduces water consumption/wastage, helping preserve the scarce resource along the way.

Tippy Tap Kenya
Clean Hands, Healthy Nation!

TrueMed

TrueMed Ltd., Finland

https://www.truemedinc.com/

AI-Powered Optical Detection Against Falsified Medicines & Illicit Substances

INNOVATION STAGE: In the market and ready to scale

TrueMed aims to build a safer world without counterfeit medicines, medical products & illicit substances. TrueMed brings life-saving optical detection to any smartphone. The technology is based on Artificial Intelligence and Machine Vision. End-users use it with their standard mobile phones (iOS and Android devices equipped with a camera).

TrueMed can be deployed in all settings and serves as a platform for public safety, public health and pharma professionals. Any pharmaceutical product in circulation can be protected instantly without having to make any changes to the products or packaging. TrueMed is equipped to detect inconsistencies in packaging, stamps, labels, pills, blister packs, vials, bottles and powders.

TrueMed's machine-learning algorithms are trained using existing production files (no system nor production changes). TrueMed is equipped to detect and trace counterfeits and illicit medicines even in pill and powder levels. TrueMed has developed several custom-built neural networks specialized in image identification.

TrueMed®
VALIDATED

VisualDx

VisualDx, USA

http://www.visualdx.com/

Clinical decision support system for health care providers

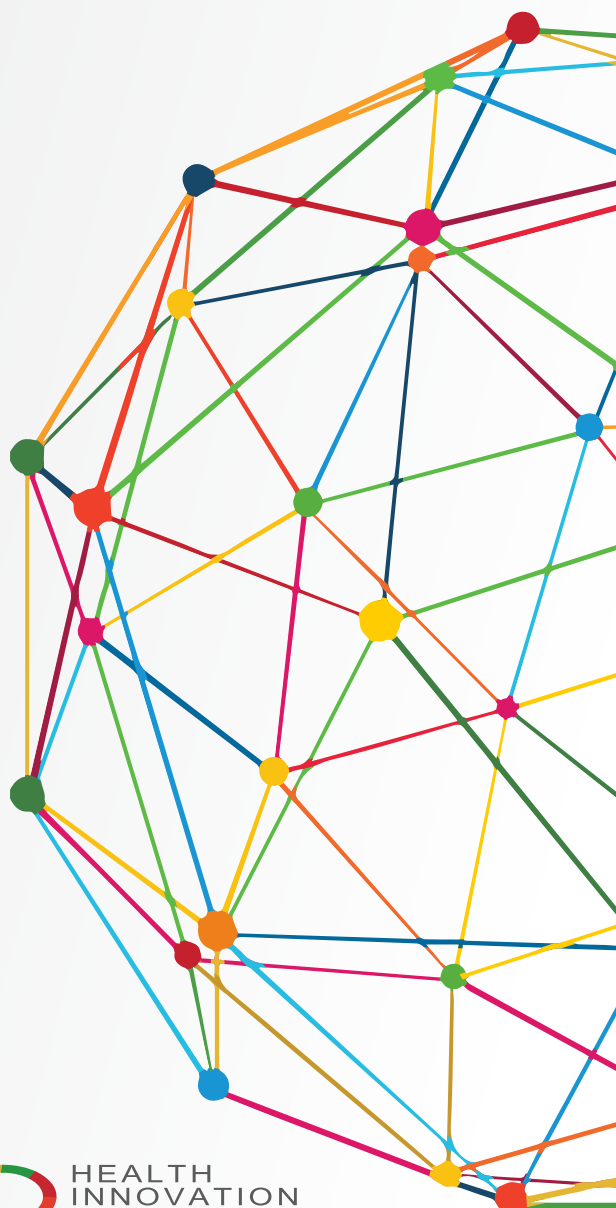**INNOVATION STAGE:** In the market and ready to scale.

VisualDx is a point-of-care clinical decision support system that has become a standard medical professional resource at more than 2,300+ medical universities, hospitals, and other clinical sites world-wide. VisualDx combines problem-oriented search with an extensive medical image library, expert knowledge and sophisticated machine learning algorithms to aid with differential diagnosis, variation, treatment, and patient communication.

Other notable characteristics of VisualDx:

- Established in 1999 – 20+ year history

- Professional CME Accreditation for application use (AMA PRA Category 1 Credits™)

- Focus on images of variation of disease in skin color pigmentation – includes AI/ ML technology to diagnose based on photo

- Off-line capability for devices

- Diagnostic, management and therapy guidelines for 3,500+ conditions

- Review 50,000+ medication reactions and adverse drug events

- Application in several languages: French, Mandarin, German, Spanish, Portuguese, Japanese

- 2020 Gates (BMGF) Foundation Grant recipient to support LMIC