## GE healthymagination & Miller Center Mother and Child Program

March 2018







This booklet features the investment profiles for the 11 social enterprises of the GE healthymagination Mother and Child Program. The profiles highlight the social entrepreneurs' work, their impact, growth plans, and financing needs.

If you are interested in exploring a funding or partnership opportunity, feel free to reach out to the entrepreneurs directly with their provided contact information, or contact us at: gsbi@scu.edu





Let's provide healthy beginnings to moms and children in sub-Saharan Africa

#### **About the GSBI®**

Based at Santa Clara University, in the heart of the Silicon Valley, the Global Social Benefit Institute (GSBI) supports social entrepreneurs who are developing innovative solutions to the problems of poverty. We support these entrepreneurs at every stage of their organizations' lifecycle through in-depth mentoring, instruction in best business practices, and connection to impact investors. We do this all at no cost to the social entrepreneurs.

## **About GE healthymagination** and **GE Ventures**

GE's healthymagination commitment is about better health for more people. We continuously develop and invest in innovations that deliver high-quality, more affordable healthcare to more people around the world. For more information about our healthymagination commitment, visit

www.gesustainability.com.

## About Miller Center for Social Entrepreneurship

Miller Center for Social Entrepreneurship is the largest and most successful universitybased social enterprise accelerator in the world. Founded in 1997. Miller Center is one of three Centers of Distinction at Santa Clara University and is located in the heart of the world's most entrepreneurial ecosystem. We leverage the entrepreneurial spirit and innovative ethos of Silicon Valley and underpin it with the Jesuit heritage of service to the poor and protection of the planet. To learn more about the Center or any of its social entrepreneurship programs, visit www.scu.edu/MillerCenter.

#### **About Santa Clara University**

Santa Clara University, a comprehensive Jesuit, Catholic university located in California's Silicon Valley, offers its more than 8,000 students rigorous undergraduate curricula in arts and sciences, business, and engineering, plus master's, Ph.D., and law degrees. Distinguished nationally by the fourth-highest graduation rate among all U.S. master's universities, California's oldest operating higher-education institution demonstrates faithinspired values of ethics and social justice.

#### TABLE OF CONTENTS

Afya Research Africa	3
Cedars Diagnostics	5
doctHERs	7
Liberian Energy Network	9
Maternity Foundation	11
MDaaS Global	13
MOBicure	15
Neopenda	17
Sevamob Ventures USA	19
Sisu Global Health	21
SubQ Assist	23





## Afya Research Africa

Since 2014, 30,000 individual patients have been served using STONE HMIS at medical centers focusing on mothers and children.

**ABOUT US** 

Afya Research Africa focuses its programs on sustainable solutions that tackle access, cost, and quality issues associated with healthcare services in Kenya. By working across three complementary areas of healthcare, we are able to support communities to set up and manage medical centers, develop health technologies to help providers succeed, and study our work to improve clinical services and publichealth interventions. We believe in building sustainable, evidence-based health systems that harness the strengths of communities and use locally appropriate health technologies to support the provision of care. In 2016, we grew the Ubuntu Afya network from 11 medical centers to 25 across Kenya, further developed and deployed Stone HMIS in all 25 sites, and supported monitoring and evaluation for three health and development programs. We believe we have a strong base on which we can continue to improve our work and show that quality care can be provided to rural Kenyans in a sustainable way.

#### TARGET MARKET

Our target market is made up of dispensaries, health centers, small-to-medium-sized private hospitals, drug shops, and individual practices that generally experience the digital divide. We estimate these locations make up to 70% of the health facilities in Kenya, and offer primary healthcare services.

#### **VALUE PROPOSITION**

Our product, Stone HMIS, is a modern EMR system designed by health workers for health workers and their clients. Our solution supports point-of-care health operations and business processes management, integration of clients' self-care information and records, and collaboration between health providers through a unique biometric-based universal personal identification system.

Empowering
health workers
to assist
communities
to attain highquality essential
healthcare

Headquarters: Nairobi, Kenya

Established: 2009

Impact Areas: Kenya

Type: Hybrid

Sector: Health, Information & Communications Technology (ICT)

Staff Size: 5

Annual Budget: \$57,600

Major Funders: DFID, Cisco Foundation, Pfizer Foundation

Stage: Pre-Revenue

#### MANAGEMENT TEAM



DR. MOSES NDIRITU Director, STONE HMIS



ENOCK OLOO STONE HMIS Associate



"Stone HMIS is more effective at guiding you to an accurate diagnosis than paper records. Stone HMIS prompts me to ask a comprehensive set of questions when presented with a symptom or a set of symptoms. Without Stone HMIS, I might not fully followup on certain symptoms and miss a diagnosis."

James, doctor at Okita Community Health Centre



#### **INVESTMENT REQUIRED**

\$250k in grants, convertible debt, and/or equity for the next 21 months to test out our marketing, sales, support, and training model in an effort to bring STONE HMIS to 20 of the 47 counties in Kenya and position it for further scale using investment capital.

#### IMPACT TO DATE

- 25 primary healthcare facilities using Stone HMIS **EMR** setup
- Over 30,000 patients seen
- Over 30 communities in hard-to-reach areas of Kenya impacted through quality healthcare and financial services

#### MILESTONES ACHIEVED

- 2016-2017: installed Stone HMIS in 27 primary healthcare facilities
- 2016-2017: trained 100 healthcare workers using Stone HMIS
- 2017: received \$500,000 to demonstrate the utility of Stone HMIS in connecting mothers and healthcare providers via a collaborative digital network

#### **GROWTH PLAN**

2018: 80 healthcare workers using Stone HMIS and 3,000 clients using StoneHMIS Apps;

2019: 160 healthcare workers and 600.000 clients using Stone HMIS StoneHMIS and StoneHMIS Apps respectively;

2020: 320 healthcare workers and 3.000.000 clients using Stone HMIS StoneHMIS and StoneHMIS Apps respectively;



**CONTACT US** 

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CONNECT







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## **Cedars Diagnostics**

We have screened, tested and diagnosed over 16,000 people including over 8,000 pregnant women in urban and remote rural areas.

Providing access
to quality &
affordable
medical imaging
services to
Kenya's poor

#### **ABOUT US**

Cedars Diagnostics is a social enterprise that actively partners with healthcare providers in Kenya to offer access to quality diagnostic healthcare to the underserved bottom of the pyramid. Cedars Diagnostics employs a Managed Radiology Equipment and Skill Service (MRESS), a collaborative partnership program that meets the challenges to improve access to quality diagnostic health for the urban poor in Kenya. This program handles outsourcing of overall departmental needs, specifically equipment and technical skills required for improving clinical care.

#### TARGET MARKET

About 65% of the Kenyan population does not have access to radiology- a proven diagnostic tool that helps reduce maternal and perinatal mortality rate, and to help fight cancer, heart disease, childhood illnesses, infections, and trauma. This populous refers to the pregnant women in resource-limited urban areas and those living in remote areas, the urban poor and the rural communities.

#### VALUE PROPOSITION

We serve institutions or health centers either for-profit, FBOs, or governmental, that provide healthcare services to the bottom of the pyramid and those living in remote regions of Kenya who lack resources to invest either in capital expenditure on equipment or lack skilled personnel needed to deliver quality medical imaging services. Cedars Diagnostics partners with these institutions to provide facilitation, financing, commissioning, staffing, training, and management of required medical imaging departments. Cedars Diagnostics provides improved capacity of public systems through mobilization of private capital in service delivery to the poor.

Headquarters: Nairobi, Kenya

Established: 2014

Impact Areas: Kenya

Type: Hybrid

Sector: Health

Staff Size: 10; Volunteers: 4

Annual Budget: \$400,000

Major Funders: Personal

investments, Stima Sacco Society

Stage: Revenue

#### MANAGEMENT TEAM



PAYAN OUKO Managing Director



ABDIRASHID MOHAMED Director, Business Development



"I would really like to express my utmost gratitude for the maternal screening exercises I have had the privilege of experiencing today. These are rare exercises within our region. I have learnt a lot about my pregnancy which I am very keen on sharing with my family and fellow expectant women."

Rose Aoko, Ndhiwa Constituency, Homa Bay County, Kenya



#### **INVESTMENT REQUIRED**

- \$1.5M in grants. \$1M in capital expense to scale up and expand operations to two strategic radiology departments over the next six months.
- \$500,000 to hire corporate staff (e.g. CFO, COO and regional managers) to help in operations, carry out research about the inequities of radiology and their possible solutions in Kenya, and sustain grassroots maternal screening and awareness outreach programs.

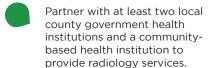
#### IMPACT TO DATE

- 800 pregnancies saved through early detection of fatal illnesses.
- 300 expectant women's lives saved through timely detection of fatal maternal condition.
- 8 health centers in operation through our collaborative partnership.
- 22 staff members trained on fundamentals of radiology.
- 900 children impacted as a result of early diagnoses of illness.

#### MILESTONES ACHIEVED

- 2014: Raised \$199,500 in seed capital.
  - 2015: Launched strategic partnerships pilot with health institutions to provide radiology services to their clients.
- 2016-2017: Employed and trained 22 staff members on fundamentals of radiology.
- 2016-2017: Initiated and commissioned 8 healthcare centers to successful operation through this strategic collaborative partnership.
- 2018: Commissioning of the first CAT scan project in Kisii County.

#### **GROWTH PLAN**



- Train 300 private and county government radiology technicians and sonographers on fundamentals of radiology over the next two years.
- Hire staff to help in strategic planning, legal affairs, finance, investor relations, training, and environmental control.
  - Scale up our maternal screening outreach program to impact more than 100,000 pregnant women in the remote regions of Kenya over the next year.

#### **KEY AWARDS**



2016: Recognition and commendation on contribution to maternal and child health in Homa Bay county.



Certification, participation and commendation on vascular ultrasound screening outreach program in collaboration with Karen Hospital.



#### **CONTACT US**





## doctHERs

We have impacted over 150,000 women in Pakistan directly through healthcare at doctHERs and indirectly through diverse education campaigns.

Connecting women to their health, wellness, and full potential

#### **ABOUT US**

doctHERs connects qualified, remotely located female doctors to marginalized women to provide affordable, quality Maternal, Neonatal & Child Healthcare (MNCH) via nurse/midwife-assisted video consultation and digital diagnostics.

#### TARGET MARKET

doctHERs targets the families of formal and informal workers who are affiliated with corporate value chains. Through co-financing from corporations, doctHERs is able to provide market-based incentives to those within corporate value chains, including suppliers, distributors, micro-retailers and domestic workers.

#### **VALUE PROPOSITION**

doctHERs leverages online technology to connect qualified, remotely located (home-based) female doctors to marginalized women for provision of affordable quality Maternal, Neonatal & Child Healthcare (MNCH) via nurse/midwife-assisted video consultation. In doing so, doctHERs addresses multiple issues stated in UN Sustainable Development Goals 1, 3, 5, 8, 10 and 17. Through their tablets and smartphones, community health promoters (CHPs), midwives and nurses serve as trusted intermediaries in their communities by linking mothers in need to remotely located (home-based) female doctors (PCPs) and OB-GYN consultants/specialists via a proprietary telemedicine (TM) platform. The TM system also enables remote diagnostic procedures such as ultrasound, EKG, and fetal heart rate monitoring, to be conducted through digital instruments that connect to the TM platform and can be manipulated by the nurse/midwife under the supervision/guidance of an OB-GYN.

Headquarters: Karachi, Pakistan

Established: 2015

Impact Areas: Pakistan

Type: For-Profit

Sector: Health

Staff Size: 6; Volunteers: 15

Annual Budget: \$200,000

Major Funders: Personal

investments, Stima Sacco Society

Stage: Revenue

#### MANAGEMENT TEAM



SABEEN HAQUE Chief Strategy Officer



DR. ASHER HASAN Founder



"I didn't have to wait for the online doctor, and the best part was that I didn't need to take my sick baby to the hospital. It was very convenient for me to talk to her (the doctor) over a video call."

Anam Rizwan, Pakistani Mother



#### **INVESTMENT REQUIRED**

- \$200k in equity to: hire CTO; hire and train a business development team that can interface with C-level corporate executives; expand integrated network of clinics, labs, hospitals, and pharmacies linked to the TM platform.
- \$100k in grants to procure handheld ultrasonography devices; hire & train community health promoters, midwives, and nurses for deployment in factories, retail venues, and underserved community clinics.

#### IMPACT TO DATE

- 1,200 expectant women have received treatment for potentially fatal maternal conditions.
- 927 children have received early diagnoses of conditions such as heart diseases, cancer, and major communicable and non-communicable diseases.
- Since costs are reduced by 50 percent, the residents in these remote, impoverished locations have increased access to medical imaging services.
- Through this partnership, eight health centers now have enhanced capacity to provide comprehensive health services.

#### MILESTONES ACHIEVED

- Reintegrated 10 female doctors and 20 nurses into the workforce
- Launched eight telemedicine centers across Pakistan
- 15,000 lives directly impacted and 750,000 lives indirectly impacted

#### **KEY AWARDS**

\chi GE/Ashoka Changemakers award

★ Unilever Sustainable Living award

★ UNICEF SDG award

MIT Inclusive Innovation award

★ Unreasonable Institute

GIST Tech I

SIF Asia award

Telenor Velocity

OSLO-KITE



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/doctherspk









## Liberian Energy Network

Lighting Up Liberia

We have provided access to sustainable electric power to over 67,000 Liberians.

#### **ABOUT US**

For more than six years, LEN has pioneered the off-grid solar power market in Liberia. In 2016, it was the leading provider of off-grid solar electrical power. LEN has provided access to electrical power and light to more than 67,000 Liberians and helped power their basic, yet essential, services such as health and education.

#### TARGET MARKET

Liberia has one of the lowest electricity access rates in the world with less than 2% of 4.6 million Liberians connected to the grid. One of the poorest countries in the world, Liberia is severely constrained by an insufficient supply of reliable and affordable electricity. In 2017, ongrid electricity sold in Monrovia had an approved tariff of \$0.39/kWh. Additionally, the grid is subject to frequent and prolonged interruptions. The Liberian government has identified the lack of reliable and affordable electricity as a critical restriction on the country's growth.

#### **VALUE PROPOSITION**

For Liberians living in rural and peri-urban areas without electricity, LEN closes the last mile in the value chain, providing the 98% of Liberians living off-the-grid with access to power not otherwise available. LEN overcomes the barriers of access by partnering with successful Liberian organizations for marketing and distribution. LEN makes it affordable with installment plans using payroll checkoffs, PayGo, and Mobile Money technology.

Headquarters: Monrovia, Liberia

Established: 2011

Impact Areas: Liberia

Type: Hybrid

Sector: Clean Tech & Energy

Staff Size: 2

Annual Budget: \$228,000

Major Funders: USADF, World

Bank, Richard P Fahey

Stage: Revenue

#### MANAGEMENT TEAM



RICHARD P FAHEY Founder & CEO



ABUBAKAR K SHARIF President



"Without solar power, people were walking between four-to-ten miles and crossing the Cestos River just to charge their cell phones at the Lone Star cell-phone tower security shack, and the children could not study at night."

Steve Butwill, founder of River Cess Health Clinic



#### INVESTMENT REQUIRED

- \$500k-\$1m in grants and/or lines of credit
- \$3-10m in any form of capital

#### IMPACT TO DATE

- 13,275 off-grid solar units distributed
- 67,703 Liberians provided access to light and power
- The Liberian census places the average Liberian household at 5.1 individuals. LEN assumes each offgrid solar unit provides access to a household. This is a conservative measure of the impact because a significant number of the units support services, such as health and education, which benefit an even larger number of Liberians per light than the household benefit ratio supports.

#### MILESTONES ACHIEVED

- 2013: Original partner with the World Bank and LRREA Liberia Renewable Energy Access Project
- 2014:Original partner of the US Power Africa off-grid initiative in Liberia
- 2015: Received \$150,000 in grant funding from the US African Development Fund
- 2016: Recognized by the Liberian Rural Renewable Energy Agency (LRREA) as the largest distributor of off-grid solar in Liberia

#### **GROWTH PLAN**





2020: 10,000 additional offgrid connections serving 51,000 rural Liberians

#### **KEY AWARDS**



2014: Encore Fellow



2017: Cordes Fellow



#### **CONTACT US**





## **Maternity Foundation**

Our Safe Delivery App has been downloaded by over 30,000 users in more than 40 different countries.

**ABOUT US** 

Maternity Foundation is a Danish development organization that aims to reduce maternal and newborn mortality in developing countries. With our vision, "No women should die giving life," the Foundation works to empower and mobilize women to seek care and empower and train health practitioners, so that more women give birth with skilled birth attendants. In collaboration with the University of Southern Denmark and University of Copenhagen, Maternity Foundation created the Safe Delivery App, a smartphone application that provides skilled birth attendants with direct and instant access to evidence-based and up-to-date clinical guidelines on basic emergency obstetric and neonatal care.

#### TARGET MARKET

Our target market is the approximately 3.6 million health workers who attend births in low- and middle-income countries, but lack skills needed to save lives in emergencies. In addition, our target market includes the organizations that implement the Safe Delivery App into programs, institutions, trainings and systems to improve the quality of care provided to pregnant women and newborns, ministries and departments of health, national training institutions, large NGOs, and UN agencies.

#### **VALUE PROPOSITION**

The Safe Delivery App (SDA) is a free mobile tool that provides skilled birth attendants (midwives, nurses, and doctors) with essential, lifesaving guidelines for emergencies that arise during childbirth. The SDA is an efficient and cost-effective training tool, both pre- and inservice, and equips birth attendants even in the most remote areas with a powerful on-the-job reference. The SDA is supported by a platform of value-added services provided by Maternity Foundation to ensure that its use results in scale and impact. These value-added services are offered to ministries of health, UN agencies and NGOS that implement the app in low-and-middle-income countries. These services include: adaptation of the app to various country contexts, training, and implementation support.

Working to ensure a safer childbirth for women and newborns everywhere.

Headquarters: Copenhagen, Denmark

Established: 2005

Impact Areas: Sub-Saharan Africa

and Southeast Asia

Type: Non-Profit

Sector: Health

Staff Size: 23; Volunteers: 4

Annual Budget: \$2,000,000

Major Funders: Merck for Mothers, Bill and Melinda Gates Foundation,

Marguerite Foundation

Stage: Other

MANAGEMENT TEAM



ANNA FRELLSEN CEO



"I have witnessed a lot of incidents where the Safe Delivery App has enabled me to save lives. The app shows a practical demonstration assisted by pictures and video. We can look at the video and perform the delivery simultaneously. It is in our hands at any time, so that we do not have to go anywhere else to study."

Zinash Teshome, Midwife in Eastern Ethiopia



#### INVESTMENT REQUIRED

- Near Term: \$404,143 in grants beginning in the second half of 2019
- Longer Term: \$521,552 in grants in 2020; \$562,552 in grants in 2021

#### IMPACT TO DATE

- 20 key partnerships underway with ministries of health, UN agencies, NGOs in eight priority lowand middle-income countries to implement the SDA at scale.
- There are over 7,000 health workers with access to the Safe Delivery App, therefore ensuring a safer birth for 700,000 women and newborns.
- A randomized controlled trial in Ethiopia has provided evidence that the app increases the knowledge, skills, and confidence of skilled birth attendants to handle childbirth emergencies.

#### MILESTONES ACHIEVED

- 2015: Randomized controlled trial shows a significant increase in the skills and knowledge level of the health workers in Ethiopia after 12 months of working with the app
- 2016: Merck for Mothers and the Bill and Melinda Gates Foundation pledged support of almost \$3M
- 2017: Produced and/or launched nationally aligned versions of the Safe Delivery App in South Africa, Laos, Ghana, and India
- 2017: Launched a WHO-guideline adherent version of the Safe Delivery App
- 2017: Approximately 30,000 users in 40 different countries

#### **GROWTH PLAN**



- 2019: Achieve national scale in five countries. Reach of 40,000 health workers.
- 2020: Reach 70,000 skilled birth attendants with the Safe Delivery App, thereby ensuring a safer birth for 7,000,000 women.

#### **KEY AWARDS**



2014: The Vallø Price



2015: The French Embassy's Human Rights Prize awarded by Ambassador François Zimeray



2016: Lennon Ono Grant For Peace, awarded by Yoko One on behalf of Icelandic artist Ólafur Elíasson



2017: Pierre Fabre's Global South e-Health Observatory Award



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CONNECT







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## **MDaaS Global**

A medical equipment and diagnostic services company committed to providing convenient, high-quality, and affordable diagnostics for Africa's next billion.

Providing healthcare for the next billion

#### **ABOUT US**

MDaaS Global is a full-service medical equipment company that makes high-quality diagnostic services more affordable and accessible for all Nigerians. By leveraging our vertically integrated supply chain and diagnostic center management platform, we help health facilities source, finance, and maintain vital medical equipment. After establishing our equipment sales and rental businesses in 2016, we launched our profit share partnership (PSP) model last year. Through the PSP, MDaaS installs, maintains, and operates critical equipment (e.g. ultrasound, digital x-ray, and ECG) at a partner site at minimal upfront cost and shares the profits generated from equipment use. Our ultimate goal is to build Africa's largest network of private diagnostic and primary care facilities, providing convenient, high-quality, and affordable care for the continent's next billion.

#### TARGET MARKET

Our target customers are private hospitals, health centers, and labs located in peri-urban and rural areas. There are over 20,000 of such facilities in Nigeria, serving approximately 150M low- and middle-income patients (our target beneficiaries). Of the \$22B spent annually on healthcare in Nigeria, we estimate that \$2B is spent on basic diagnostic services alone.

#### **VALUE PROPOSITION**

Unlike our competition, who focus almost exclusively on sales, MDaaS provides a range of acquisition options to make critical diagnostic equipment more affordable for hospitals and, by extension, patients. We also provide unparalleled technical support to minimize equipment downtime and extend the useful life of our devices. Finally, our diagnostic center management app enables us to monitor and improve center operations, resulting in reduced patient wait times and higher quality of care.

Headquarters: Cambridge, MA, USA Lagos, Nigeria

Established: 2016

Impact Areas: Nigeria

Type: For-Profit

Sector: Health & Economic

Development

Staff Size: 10; Contractors: 2

Projected 2018 Budget: \$320,000

Major Funders: Kletjian Foundation, Nigeria Health Innovation Marketplace, MIT IDEAS

Stage: Revenue

MANAGEMENT TEAM



OLUWASOGA ONI Cofounder & CEO



GENEVIEVE BARNARD Cofounder & CFO



"My partnership with MDaaS has greatly benefited my business and community. My center was able to grow our radiology services and treat more patients."

Moses Oseghale, Managing Director of CrestMed Diagnostic Clinic



#### INVESTMENT REQUIRED

\$525k in grant funding or seed round equity to fund our next ten PSP centers and the further development of our diagnostic center management application.

#### IMPACT TO DATE

- Over 20,000 patients diagnosed using MDaaS equipment.
- Deployed 27 devices in the field with >95% uptime.
- Provided equipment and maintenance support to 12 hospitals in southwestern Nigeria.

#### MILESTONES ACHIEVED

- 2017: Launched our first two profit share partnerships, providing world-class digital x-ray, ultrasound, and ECG services to over 250 patients within the first two months of operations.
- 2017: Raised \$60,00 to launch our PSP model.
- 2016: Successfully shipped, installed, and maintained over \$100,000 of medical equipment in five hospitals.

mdaas

#### **GROWTH PLAN**

2018 Q1: Refine PSP model based on feedback from first two centers. Achieve breakeven at both centers.

2018 Q2: Raise funds for scaling the PSP business model.

2018 Q3-4: Launch five new PSP centers. Develop and launch version 2.0 of diagnostic center management app.

2019: Launch 20 new PSP centers across southern Nigeria.

#### **KEY AWARDS**



2017: MIT IDEAS Global Challenge



2017: MIT PKG Service Center



2015 & 2016: MIT Legatum Center for Entrepreneurship & Development



2015: Nigeria Health Innovation Marketplace (NHIM): Health Innovation Challenge



2015: Africa Leadership Network Ventures



2015: Harambe Entrepreneur Alliance: Healthcare Award

#### CONTACT US

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CONNECT







#### **ABOUT US**

OMOMI enables mothers to easily monitor their children's health, provides access to specific and lifesaving maternal and child health information plus medical expertise, all at the touch of a button. We operate on the bedrock of the B2C and B2B model, and our plan at scale is to plug different revenue model verticals into the platform that will be validated as we grow.

#### TARGET MARKET

Women of childbearing age (15 to 45 years) account for almost 22% of the total population of Nigeria, approximately 40 million people. Nine in ten people in Nigeria own a mobile phone. According to the Nigerian Communications Commission (NCC), as of July 2015, Nigeria had 150 million active mobile phone lines. With mobile penetration at over 80% and increasing, there has been a steady rise in the growth of mobile app downloads, and, by extension, mobile health app downloads.

#### **VALUE PROPOSITION**

To reduce child and maternal mortality by providing accurate, convenient, and affordable healthcare. By providing a unique niche of young mothers, customers (companies, NGOs, and HMOs) can access and market to these groups.

Headquarters: Nigeria

their fingertips

Established: 2015

Impact Areas: Nigeria

Type: For-Profit

Sector: Health

Staff Size: 10; Volunteers: 20

Annual Budget: \$14,000

Major Funders: USADF, Citibank, US Consulate Lagos, Dubai Expo

Live 2020

Stage: Pre-Revenue

#### MANAGEMENT TEAM



DR. EMMANUEL OWOBU Cofounder



DR. CHARLES AKHIMIEN Cofounder



"Thank you so much, Doctor. I am feeling so loved with your treatment. I really do appreciate it."

OMOMI User Jeniff, Nigeria



#### **INVESTMENT REQUIRED**

\$500k in grants, convertible debt, and/or equity

#### IMPACT TO DATE

- 35,000 women reached
- 120,000 children reached

#### MILESTONES ACHIEVED

- Reached 35,000 women across the country, totaling to a 150% growth in 2017
- Launched premium paid service: Chat-A-Doc
- Received total funding of \$150,000

#### **GROWTH PLAN**



2018: Reach 100,000 women directly and 400,000 women and their families indirectly



2019: Generate \$150,000 in revenue



2020: Expand to Ghana and Kenya, reaching 30,000 women in both countries

#### **KEY AWARDS**



2015: Smartcity Expo World Congress



2015: World Summit Youth Award 2015



2016: Private Sector Health Alliance of Nigeria (PHN) Health Innovation Award



2016: United States African Development Foundation (USADF) YALI



2017: LEAP Africa Social Innovation Program



#### **CONTACT US**

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## Neopenda

We have engaged 200 health workers and engineers from low-resource settings in the design of our solution.

**ABOUT US** 

Neopenda is a social enterprise striving to advance newborn health in low-resource settings through innovative technology solutions. Nearly 3 million newborns die every year in the developing world, and 80% are preventable and treatable. Our first product is a wearable vital signs monitor for newborns, designed for resource-constrained hospitals, where traditional equipment is inappropriate and prohibitively expensive. Our system will give voice to the millions of newborns in need of advanced care, help healthcare workers improve the quality and efficiency of care delivered, and ultimately reduce deaths from preventable causes.

#### TARGET MARKET

By focusing our initial efforts on a target market of health facilities with neonatal wards in low-resource settings, we can improve the quality of care for 45M vulnerable newborns in need of a vital signs monitor, yielding a \$91M market. There is a natural expansion of our product to other patient populations and use cases in low-resource settings, coming to a total addressable market of \$715M.

#### **VALUE PROPOSITION**

Neopenda's low-cost vital signs monitor provides a solution to the challenge of equipping overcrowded, under-resourced neonatal units with unparalleled value—delivering the best outcomes in the developing world. Our solution is set apart by its continuous measurement of all the crucial vitals, 4-in-1. We deliver this gold standard of care to populations that otherwise don't have access by making it affordable, versatile, and robust. Neopenda is laser-focused on our users, involving healthcare workers and stakeholders in the product design so that we build the most useful solution possible.

Improving newborn health outcomes in resource-constrained settings

Headquarters: Chicago, IL, USA

Established: 2015

Impact Areas: Uganda

Type: For-Profit

Sector: Health

Staff Size: 3

Annual Budget: \$708,000

Major Funders: Vodafone Americas, Cisco, Relevant Health, Kickstarter,

Columbia University

Stage: Pre-Revenue

#### MANAGEMENT TEAM



SONA SHAH CEO



TERESA CAUVEL CTO



"Sometimes it is 150 [babies] for you alone. . . it makes us ineffective. It commonly encroaches on the monitoring because by the time you start on the first baby, when you reach the last baby, you may not find the last baby surviving. [Babies] outnumbering the workers is a big challenge."

Damalie Mwogererwa, Senior Neonatal Nurse, Kawempe National Referral Hospital Special Care Baby Unit



#### **INVESTMENT REQUIRED**

\$750k in convertible debt for product iteration; implementation for accuracy, feasibility, and impact studies; initial commercialization (including CE Marking and initial manufacturing costs)

#### IMPACT TO DATE

We have involved 32 engineers and 138 health workers from 27 Ugandan health facilities in the design of our device.

#### MILESTONES ACHIEVED

- 2016: Raised \$450K in non-dilutive funding
- 2017: Developed Proof of Concept (POC) prototype, including smallbatch manufacturing and safety testing in preparation for clinical studies
- 2017: Informally tested POC prototype in Uganda and received feedback from 100+ future users

#### **GROWTH PLAN**



2018: Perform clinical tests to validate accuracy and feasibility on 50+ newborns



2019: Distribute devices to 30+ hospitals



2020: Scale efforts to six countries

#### **KEY AWARDS**



2016: 1st Place, 2016 Vodafone Americas Foundation Wireless Innovation Project



2016: 1st Place, Cisco Internet of Everything Challenge at the 2016 Rice Business Plan Competition



2017: Honorees, Inc.'s 2017 30 Under 30 Entrepreneurs list



**CONTACT US** 

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@Neopenda\_Health





## Sevamob Ventures USA

Fifteen thousand patient consultations per month via 73 pop-up clinics in India and South Africa during Q4 FY2017.

Transforming access to primary healthcare in under-served areas

#### **ABOUT US**

Sevamob provides an artificial-intelligence-enabled healthcare platform to organizations in India and southern Africa. The platform has 3 touch points:

- Pop-up clinics for onsite, in-person care
- Telehealth infrastructure for remote care via video consultations and second opinion
- Artificial-intelligence-based triage and consultation
   Our customers include employers, schools, corporate CSR, NGOs, hospitals/clinics and pharmaceutical companies.

#### TARGET MARKET

Employers, schools, corporate CSR, NGOs, hospitals, and governments in underserved urban and rural areas.

#### **VALUE PROPOSITION**

Sevamob delivers comprehensive primary healthcare at up to 50% lower cost by integrating asset-lite pop-up clinics with telehealth and artificial intelligence. Care includes general health, vision, dental, ENT, cardio-metabolic, infectious diseases, nutrition and more. The impact of our program is tracked via our tech platform.

Headquarters: Atlanta, GA, USA

Established: 2012

Impact Areas: India, Southern

Africa

Type: For-Profit

Sector: Health

Staff Size: 58

Annual Budget: \$592,000

Major Funders: Impact Assets, Vilcap Investments, ADAP Capital, Artha Ventures, Village Capital

Stage: Revenue

#### MANAGEMENT TEAM



SHELLEY SAXENA Founder & CEO



TUMI MABITSELA CEO Africa



"With Sevamob's streamlined primary healthcare delivery model, we have been able to improve customer loyalty in several states of India."

Amol Bhalerao, VP of CSR Fullerton



#### **INVESTMENT REQUIRED**

\$1.5M in grants, convertible debt, equity, and/or lines of credit

#### IMPACT TO DATE

- 15,000 patient consultations per month
- 73 pop-up clinics in Q4 FY2017 with the majority of them sustainable
- 360,549 patient consultations since April 2015
- In select groups, we have achieved the
  - Reduction in malnutrition by 15%
  - Reduction in vision defects by 25%
  - Reduction in dental issues by 30%

#### MILESTONES ACHIEVED

- Successfully replicated the model in more than ten states of India and two provinces of South Africa
- 73 pop-up clinics in Q4 FY2017 with the majority of them sustainable
- \$892K in equity funding to date in three small rounds

#### **GROWTH PLAN**



Achieve profitability at the company level (unit profitability already proven)



3.5X growth in a number of pop-up clinics



10X growth in third-party organizations paying for technology

#### **KEY AWARDS**



One of the winners on NDTV's reality TV show, The Real Deal



Intuit Social Business of the Year 2013



Conscious magazine: 19 social entrepreneurs to watch in 2017

SEVAMBB" CONTACT US

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# Providing affordable and accessible medical devices that save lives in SubSaharan Africa

## Sisu Global Health

Sisu creates accessible medical devices designed for underserved healthcare systems in emerging markets, starting in Sub-Saharan Africa.

#### **ABOUT US**

Healthcare systems in emerging markets struggle because 80% of medical technologies are designed for 10% of the world. Sisu bridges this gap as a medical device company specifically for emerging markets, starting in Africa. Sisu builds a pipeline to guide devices through the complex medical device value chain. Sisu has core expertise around the two areas where most medical devices fail: appropriate design and market validation. Medical devices are developed internally and licensed in from outside partners.

#### TARGET MARKET

Sisu is first targeting surgery in urban hospitals based on market share and ease of distribution. Sisu's initial customers are individual hospitals, who reserve up to 30% of their budgets for donor blood, reached through wholesale distributors. Surgery is concentrated in city centers, which allows easier distribution systems and a reliance on private market systems. Sisu has letters of support from hospitals across Africa. Sisu's products address the \$91B medical device market in emerging economies, with Hemafuse also targeting the \$3B blood market. Hemafuse has an annual serviceable addressable market of \$494 million in its three target regions in Africa based on wholesale pricing. This is based on surgeries currently performed viable for Hemafuse and includes public and private hospitals.

#### **VALUE PROPOSITION**

Sisu Global Health creates and commercializes medical devices in emerging markets. We are building a pipeline to bring medical devices to market to address challenges unique to emerging markets, such as blood access. In Africa, \$3 billion is spent on blood, and there is a severe blood shortage. Sisu created Hemafuse as an alternative to donor blood for cases of internal bleeding from trauma. Hemafuse manually salvages, filters, and recycles blood from an internal hemorrhage back to the patient. Hemafuse will be sold through distributors to hospitals. The addressable market is 20 million cases. The relationships and systems Sisu develops with Hemafuse will be used with other portfolio products to scale in Africa and across emerging markets.

Headquarters: Baltimore, MD, USA

Established: 2014

Impact Areas: Ghana & Kenya

Type: For-Profit

Sector: Health

Staff Size: 5.75

Annual Budget: \$850,000

Major Funders: Camden Partners, Grand Challenge: Saving Lives at Birth, Abell Foundation, TEDCO,

Steve Case, Dream It

Stage: Pre-Revenue

#### MANAGEMENT TEAM



CAROLYN YARINA CEO



GILLIAN HENKER CTO



KATHERINE KIRSCH



"The Hemafuse is a great device. We've been looking for something like this for many years...it is often safer for [patients] to recieve their own blood, and sometimes we also have challenges with our blood bank. So, if we could autotransfuse, this offers a safer approach"

Dr. Kofi Effah, OBGYN, Bator, Ghana



\$5M in convertible debt and/or equity



#### IMPACT TO DATE

Hemafuse received regulatory clearance in Ghana and Kenya in the past year. The potential for impact moving forward is vast as a lack of appropriate technology and a 40 million unit shortage of donor blood each year, soup ladles and gauze are used to recycle a person's own blood in surgery. The largest hospital in West Africa performs over 500 of these "scoop and sieve procedures" per year for first trimester pregnancy complications alone.

#### MILESTONES ACHIEVED



In the past year, Sisu obtained regulatory clearance for Hemafuse in both Ghana and Kenya, exceeding their goal of a single regulatory approval. Sisu completed a clinical study in Ethiopia and manufactured devices in the US through injection molding. Sisu also had a patent granted on a second product, Evolve®, a centrifuge that can be used with or without electricity for rural diagnostics.

#### **GROWTH PLAN**



Sisu will spend the next 12 months hiring an in-country regional manager and working closely with distributors in Ghana and Kenya to implement a robust training program, market Hemafuse, and complete sales of \$150k.



Over the next three years, Sisu expects to reach \$9.8M. Sisu is also pursuing ISO 13485 certification and is scaling up production capability. Sisu will complete grant-funded clinical studies in two additional countries in Sub-Saharan Africa to aid in expansion to countries in both Western and Eastern Africa.

#### **KEY AWARDS**



Invited by the US State Department to attend the Global Entrepreneurship Summit



Winner: First Mile Innovation Challenge (\$25k) from GE and CAMTech (MGH Hospital)



Winner: Rise of the Rest (\$100k) by Steve Case



Saving Lives at Birth, 2 grants funded by USAID and the Gates Foundation



"Award of Excellence" from the Bloodless Surgical Society



Winner: 2015 SXSW Eco Startup Showcase winner

#### **CONTACT US**















# SubQ Assist

Increasing
access to longacting contraceptives
in rural low- and
middle-income
countries

## **SubQ** Assist

The SubQ Assist has been developed to enable community healthcare workers to administer contraceptive implants in underserved rural areas.

#### **ABOUT US**

Worldwide, 113 million women have unmet contraceptive needs. If these needs were met, 54 million unintended pregnancies would be prevented, 26 million abortions avoided (16 million of which are unsafe), 7 million miscarriages averted, and 79 thousand maternal and 1.1 million infant deaths avoided. While long-term contraceptives are preferred by governments and women, they require more advanced training to administer. Thus, it is more challenging to provide access to this form of contraception, particularly in rural areas of low- and middle-income countries (LMICs). Our team has developed the SubQ Assist, an assistive medical device that dramatically reduces the training required to administer subcutaneous contraceptive implants and ensures accurate insertion of the contraceptive implants, thereby eliminating the risk of improper, unsafe insertion. Through the use of this device, community healthcare workers (prevalent in rural areas of LMICs) would be able to administer a crucial form of long-term contraception and increase access to an underserved population. We are currently conducting pre-clinical trials and cadaver studies and are also in the approval process for a clinical trial to assess safety and efficacy.

#### TARGET MARKET

The SubQ Assist enables access to contraceptive implants for women in rural low- and middle-income countries. In 2018, this market represents more than 2 million women.

#### **VALUE PROPOSITION**

SubQ Assist is an assistive device that facilitates and simplifies the administration of contraceptive implants allowing community healthcare workers to consistently and safely provide long-acting contraception, primarily for women in underserved rural areas. Headquarters: Ann Arbor, MI, USA

Established: 2013

Impact Areas:

Low- and middle-income countries

Type: For-Profit

Sector: Health

Staff Size: 1.25

Annual Budget: \$85,000

Major Funders: Grand Challenges Canada (Saving Lives at Birth), VentureWell, Unite for Sight

Stage: Pre-Revenue

#### MANAGEMENT TEAM



DR. IBRAHIM MOHEDAS Project Lead



"We are very enthusiastic about the SubQ Assist, [and its potential] to task-shift subcutaneous administration to Community Healthcare Workers. We have worked with the team to provide clinical feedback to guide development and believe it is well-suited to the healthcare context of Ethiopia. We believe that the SubQ Assist is an important device to develop and we are confident that the device is ready to undergo clinical testing."

Delayehu Bekele, MD, MPH



#### **INVESTMENT REQUIRED**

\$325k to execute a rural community health worker-based clinical trial and associated regulatory approval costs (for the CE mark). Performing this work would allow us to gather the data that would justify further investment for scaling the SubQ Assist (which we would do via equity investments).

#### IMPACT TO DATE

- Conducted pre-clinical trials to safety and accuracy in clinical models and cadavers
- Assessed usability with >200 healthcare providers in Ethiopia & Ghana
- Received approval for a clinical trial to be conducted at the University of Michigan

#### MILESTONES ACHIEVED

- 2015: Received 275K in funding from Grand Challenges Canada through the Saving Lives at Birth grant
- 2016: Received VentureWell E-team Phase II grant (25K)
- 2018: Clinical trial approved by University of Michigan
- 2018: Finalist for MiTRAC grant to conduct clinical trial

#### **GROWTH PLAN**



Complete a 50 patient clinical trial to assess safety and efficacy



Obtain regulatory approval through either FDA/CE



Design and execute a 1,000 patient rural, community healthcare worker-based field trial to demonstrate health outcomes impact

#### **KEY AWARDS**



2017: Winner, Unite for Sight GHIC Innovation Pitch Contest

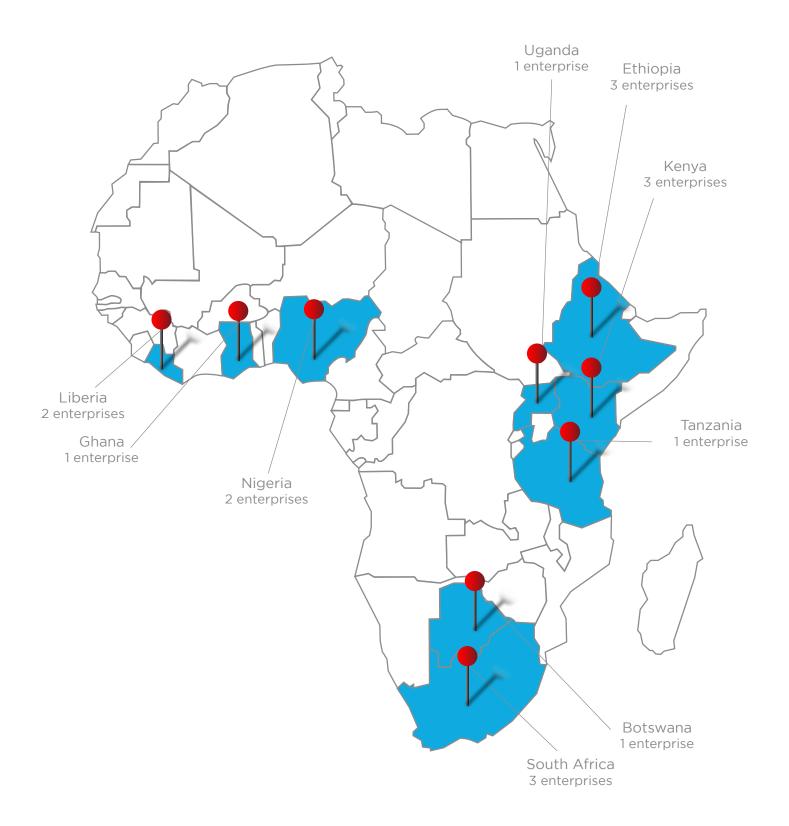


#### **CONTACT US**

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# Our finalists come from 9 countries across Africa



### GSBI Mentors, Staff, and GE Leaders

We are deeply grateful for the generous contributions made by the volunteer GSBI mentors and GE leaders in support of the healthymagination Mother and Child Program. The mentoring provided by the individuals below sets the program apart from any other program in the world, and we thank them for their support.

Aaron Kahlow Alex Limberis

Ali Aiouaz

Alina Adams

Andrew Katcher

Asha Varghese (GE)

Bill Scull Brian Haas

Clyde Lewis (GE)

Daphne Luong

Dave Anderson

David Barash (GE)

Faith Mugai

Joel Hagberg John Apgar John O'Keefe

Jonathan Propp

Katie Buck (GE)

Ken Sandy

Kristina McMillan

Leslie Bottorf (GE)

Linda Fosler

Ling Han

Meena Almaneih

Michelle Ewoldt

Mokhtar Hamed (GE)

Oliver Keown (GE)

Patricia Martin

Patricia Pearman (GE)

Purnima Chawla Renee Niemi RL Prasad

Robert Schwartz (GE)

Robert Wells (GE)

Ross Boyd (GE)

Sally Lee (GE)

SanjayJain

Scott Scovel

Scott Scovel

Shaun Glover (GE)

Theo Keet

Uresh Vahalia

Vikram Damodaran (GE)

Yvonne Moustakas



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