Leveraging Technology for Affordable Quality Healthcare in East Africa

Dr. Patricia Odero, Regional Director East Africa
May 17th, 2016
Agenda

- Innovations in Healthcare and SEAD
- SEAD innovators and Innovator Spotlights
- East Africa Healthcare Innovation Landscape Report
- Innovation trends and Market Opportunities
- Digital Healthcare Opportunities
- Solve for Scaling Challenges
Innovations in Healthcare is a leading global network supporting the scaling and adaptation of promising healthcare innovations worldwide, and is a core partner in the Social Entrepreneurship Accelerator at Duke (SEAD)

1. **Source**
   Increases awareness of promising new strategies to address health challenges by curating a network of innovative solutions developed by organizations from around the world.

2. **Strengthen**
   Increases the capacities of these innovative organizations by providing key resources and connections.

3. **Scale**
   Increases the scale of impact of these innovative models and offerings by facilitating their adoption in new contexts.

4. **Study**
   Facilitates the development and dissemination of focused insights and new evidence about these innovations and their strategies to scale and replicate.
What is SEAD?

SEAD is a multi-year accelerator at Duke University that has been working with mid-stage nonprofit and for-profit global health solutions addressing cost, quality and access issues for low and medium income populations in East Africa and India as part of the Higher Education Solutions Network.

Founded in November 2012 via a 5 year award from USAID’s Higher Education Solutions Network, SEAD mobilizes a community of practitioners, investors, corporations, faculty, staff and students.
What is SEAD?
Cross-Sector, Cross-Disciplinary
Why SEAD?
SEAD Overview

3 Year Accelerator Program

- Faculty & Students
- Impact Investors
- Corporate Networks

Growth-Stage Global Health Enterprises

Tools & Resources

Tailored Support Services

Networking & Learning Forums

Evaluate & Refine

Evidence and insights into paths to scaling impact

Increased scale of impact of healthcare innovations

Increased student engagement around global social efforts
Focus on 25 Organizations Working to **Scale Impact**

- 11 Care Delivery
- 8 Product/Technology
- 3 Workforce Training
- 3 Healthcare Financing
What do SEAD innovators look like?

- Average Revenue: $1.04M
- Total Beneficiaries: 6 million people
- Average Years in Operation: 6.1 years
- Average Full Time Staff: 31

GEOGRAPHIC FOCUS (MAIN FOCUS)
- ASIA: 12
- EAST AFRICA: 12
- LATIN AMERICA: 1

Duke
SOCIAL ENTREPRENEURSHIP ACCELERATOR AT DUKE
Innovator Spotlight: MicroClinic Technologies

The Need:
Rural clinics provide over 80% of health care in Kenya. However, most clinics operate at 25% capacity or less, due to poor management of patient volume, and nearly 40% of patients are misdiagnosed, due in part to a lack of diagnostic equipment.

Product/Service Offering
- MicroClinic Technologies offers an enterprise Health Management information system ZiDi™
- ZiDi enables clinics and hospitals improve the efficiency of health services by improving monitoring and evaluation of patient care, medicines, and personnel. Offered as a prepaid service, ZiDi includes an electronic medical record system and real-time drug dispensing tracking.

Impact:
Kenya and Liberia; more than ten private clinics and five public facilities serving over 100,000 patients.
Innovator Spotlight: Afya Research Africa

The Need:
Access to quality healthcare in Kenya is complicated by great distances to health facilities, poor infrastructure and a lack of health system capacity to monitor and assess provider quality.

Product/Service Offering
- ARA runs a network of community medical centers – Ubuntu-Afya Kiosks in underserved-remote rural areas. This involves a co-ownership model with the communities of the kiosk-enterprise unit.
- To improve doctor-patient reach and health outcomes, ARA partners with collaborators including Cisco, Telkom Kenya in a telemedicine programme that is offered through some of the Ubuntu-Afya kiosks
- ARA has developed a web based electronic health information system that is modular and built using open source databases and programming languages. The system is in all Ubuntu-Afya Kiosks and is being prepared for commercial access including interface with DHIS 2.

Impact:
Kenya: Network of 11 kiosks and projected roll out of 24 more kiosks in 2016
Why Study Regional Innovation?

- To become more effective in supporting scaling
  - Better understand the context for scaling innovations, including drivers/barriers
  - Develop stronger stakeholder relationships, and build local/regional credibility
- To foster cross-regional connections and learning
- To support adaptation of innovations in new regions

The **East Africa Healthcare Innovation Landscape** report provides a glimpse into emerging innovation trends, market gaps and opportunities for more effective collaboration.
In East Africa, existing healthcare innovations tend to be *earlier-stage*, focused on building *for-profit models*, and *integrating technology* into their solutions.

1. Innovators from our 2015 pipeline sourcing initiatives tended to be earlier stage, for-profit companies concentrating on technology solutions.

2. Care providers are aggregating into networks and using improved tools, processes, and technologies to create economies of scale and improve quality.

3. Aggregated networks of care providers are using their influence to create system-wide change.

*Duke Social Entrepreneurship Accelerator at Duke*
Small-scale providers are giving way to delivery networks that can scale and take advantage of tools and tech that improve efficiency and financial sustainability.

The evolution of healthcare innovations

Care Delivery ➔ Networks ➔ Tools + Tech*

- Self-built brick and mortar provider networks that can control quality
- Aggregate patient and provider networks create economies of scale that lower costs and increase access to care
- Standardization and processes improve quality

- Technology enables efficient and sustainable care delivery

*Stand-alone businesses-to-business solutions
Market opportunities: financing solutions, patient engagement and experience, non-communicable disease management models, and accessible diagnostics.

- **Financing**: Just shy of 90% of Kenyans lack any form of health insurance and the picture is similar in Uganda.

- **Patient engagement and experience**: Existing healthcare innovations are largely provider-led solutions like training, improved payment models, or process improvements.

- **NCD management models**: East African countries continue to face the double burden of disease with non-communicable diseases now accounting for nearly one-third of all premature deaths.

- **Accessible diagnostics**: Accessible point-of-care diagnostics are increasingly in demand by public and private sector providers.
Exploring the opportunity in East Africa’s digital health market

The Disconnect

Health Sector recognizes the leapfrogging opportunity technology provides in light of global technology trends

There are relatively fewer health technology startups coming out of innovation communities in the region

The Opportunity

Many niche areas in the East African digital health market remain unexploited with players from other regions looking to enter the market

Connecting adjacent innovation clusters to the healthcare innovation ecosystem allows innovators to tap into new market opportunities
Big Results - Digital healthcare Ecosystem
SEAD Health Hackathon

SEAD in partnership with corporate sponsors hosted a health hackathon in September, 2015 in Nairobi to support the co-creation of health technology solutions that deliver higher quality, cost-effective healthcare.
For **Digital Health Solutions** to reach their potential in East Africa there is a Need to **Solve for Scaling Challenges**

- Commercialization and Sustainability Models
- Development of digital health solutions that meet market gaps and customer needs
- Partnerships with private sector to fit into existing value chain models or enhance them
- Accessing the Regional market in East Africa for growth and required scale
- Structuring Win-Win partnerships with the Public Sector
Stay in touch!

For more information please contact:

Patricia Odero, Regional Director East Africa
patricia.odero@duke.edu

Website:
www.dukesead.org
www.innovationsinhealthcare.org

Twitter: @dukesead
@innovationsinhc