Lessons in Scaling Healthcare Innovation

SEAD East Africa
Innovations in Healthcare
June 6, 2016

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Agenda

- SEAD and the impetus for this report
- Who we talked to
- What we learned:
  - Healthcare and innovation in East Africa
  - Emerging healthcare innovations
  - Market opportunities
- Strengthening the healthcare innovation ecosystem
- Next steps
What is SEAD?

The Social Entrepreneurship Accelerator at Duke (SEAD) is a global health enterprise accelerator executed by partners within and outside Duke University, including Innovations in Healthcare.

Launched in 2012, SEAD is a USAID-supported effort that mobilizes a community of practitioners, investors, policymakers, faculty, staff, and students to identify, assess, build capacity of, and scale health and healthcare enterprises in developing countries around the world (focused on India and East Africa).
Innovations in Healthcare


- **Our Vision** is to scale healthcare innovations worldwide.

- **Our Mission** is to source, strengthen, study and scale promising innovations, and thereby increase access to quality, affordable healthcare worldwide.

- We have curated a network of **67 Innovators operating in 49 different countries**.
SEAD Overview

3 Year Accelerator Program

- Growth-Stage Global Health Enterprises
- Tools & Resources
- Tailored Support Services
- Networking & Learning Forums
- Evaluate & Refine

Outcomes:
- Evidence and insights into paths to scaling impact
- Increased scale of impact of healthcare innovations
- Increased student engagement around global social efforts

Participants:
- Faculty & Students
- Impact Investors
- Corporate Networks
SEAD supports the development and growth of innovative healthcare organizations

OUR INNOVATORS BENEFIT FROM:

**BUSINESS SUPPORT**
We offer materials, tools, and workshops designed to address critical business needs; We also coordinate staffing support from student interns and corporate partners.

**NETWORKING & LEARNING**
We connect entrepreneurs to one another and to potential strategic partners via working groups, networking events, and targeted connections.

**ACCESS TO FINANCING**
We help innovators refine their business models and financing needs and connects them to funders and investors.
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
SEAD established an East Africa regional office in January 2015 in Nairobi

**Our mission was two-fold:** to deepen engagement with regional innovators and contribute to a health innovation ecosystem conducive to growing the scale and impact of healthcare innovations in our network.
The landscape project mapped the players, gaps and opportunities in the East Africa healthcare innovation ecosystem.

Objectives

To understand: How resources can be deployed and key stakeholders can interact more effectively to grow healthcare innovations that are poised to positively impact the sector in East Africa.
We spent nine months gathering information and talking to stakeholders in the healthcare innovation ecosystem in East Africa.

<table>
<thead>
<tr>
<th>Feb – March ‘15</th>
<th>April – July ‘15</th>
<th>August ‘15 – Jan ‘16</th>
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</thead>
<tbody>
<tr>
<td><strong>Phase 1</strong></td>
<td><strong>Phase 2</strong></td>
<td><strong>Phase 3</strong></td>
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<tr>
<td>Initial research and landscaping</td>
<td><strong>In-depth Interviews</strong></td>
<td>Hypotheses Testing</td>
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<tr>
<td>- Compiled existing data sources</td>
<td>- Conducted semi-structured interviews with ecosystem players</td>
<td>- Tested hypotheses during a series of events in Sept ’15</td>
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<tr>
<td>- Reached out to major players in the field to leverage existing research and work</td>
<td>- Active Innovator Recruitment</td>
<td><strong>Synthesis and Recommendations</strong></td>
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<tr>
<td>- Conducted a literature and data review</td>
<td>- Innovations in Healthcare pipeline process</td>
<td>- Synthesized major insights</td>
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<tr>
<td>- Created an interview framework based on initial hypotheses</td>
<td>- Site Visits</td>
<td>- Shared findings with ecosystem players to get feedback / build on research</td>
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<td></td>
<td>- Kenya, Rwanda and Uganda</td>
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**Duke Social Entrepreneurship Accelerator at Duke**

**USAID**

From the American People
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The SEAD East Africa team gathered information and interviewed more than 60 stakeholders in the healthcare innovation ecosystem.
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Strengthening the healthcare innovation ecosystem

Next Steps
Macro-economic, political, and disease trends are influencing the growth and development of the health sector in East Africa

1. Appetite for cross-region and cross-sector collaboration creating unique environment to scale up maturing innovations

2. Despite widely acknowledged shifts in disease burden, funding still largely directed towards disease-specific silos

3. Increasing urbanization and a significant rural-based population create two different customer segments each with unique access challenges
Country-level political and sector trends have implications for how the health sector will grow and develop across the region

<table>
<thead>
<tr>
<th>Role of the public/private sector</th>
<th>Kenya</th>
<th>Uganda</th>
<th>Rwanda</th>
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</thead>
<tbody>
<tr>
<td>Private sector plays a dominant and growing role in the health system</td>
<td>Prominent private sector with traditional development orgs in disease programs</td>
<td>Large public sector investments in health, technology and the regulatory environment</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Health financing</th>
<th>Kenya</th>
<th>Uganda</th>
<th>Rwanda</th>
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</thead>
<tbody>
<tr>
<td>Financing solutions in the public and private health sectors have yet to reach the mass market</td>
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<td>High levels of coverage through public sector health financing options</td>
<td></td>
</tr>
</tbody>
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<table>
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<tr>
<th>Entrepreneurial environment and support systems</th>
<th>Kenya</th>
<th>Uganda</th>
<th>Rwanda</th>
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<tbody>
<tr>
<td>The ecosystem is vibrant but could be improved through increased coordination</td>
<td>Innovations are earlier stage and there is increasing interest in the health sector</td>
<td>Innovations work with the Rwanda government to improve the existing health infrastructure</td>
<td></td>
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</tbody>
</table>
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.
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**
  - Self-built brick and mortar provider networks that can control quality

- **Networks**
  - Aggregate patient and provider networks create economies of scale that lower costs and increase access to care

- **Tools + Tech**
  - 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.
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We found 5 areas where there is potential for strengthening the healthcare innovation ecosystem in East Africa

- Increase knowledge sharing
- Strengthen private-private partnerships
- Leverage the connections between the technology and healthcare sectors
- Understand how to engage with the public sector
- Make growth capital more entrepreneur-friendly
Innovation requires innovative funding

- **Dearth of growth capital**
  - Local companies are unable to access 'old fashioned growth financing through debt; either debt is unavailable, available at crazy high rates, or needs too much collateral.

- **Mismatch between available capital and venture needs**
  - The field is in 'pioneer' stage - needs both capital and technical assistance.

- **Gaps in innovator knowledge**
  - Innovators struggle to understand the type of capital required to grow, and the right time to pursue capital.

Deploying early and mid-stage growth capital in a way that allows innovators to learn, iterate, and scale successfully can create more impactful sustainable enterprises.
Structuring high value partnerships with the public sector can open up a path to scale

- There is a learning curve
  - Both private sector and public sector players are working to figure partnership in the context of complex evolving health systems

- Relationships are key
  - Partnerships can go a long way if both sides work to develop trust and collaborate towards a common end goal

- Invest in structure
  - Articulating the role of each partner upfront is as critical as the willingness to revisit partnership agreements regularly

Partnerships are about more than money. Knowledge transfer, capacity building and sharing can be equally as valuable on the path to scale
Relatively few innovators are successful in building partnerships with multinationals despite the untapped potential in this area.

Many questions remain unsolved as growth stage innovators and multinationals navigate partnerships.

- Is there a viable market and partnership opportunity?
- Leverage – a dirty word?
- Who is the partner – commercial or social side of corporations?

Testing out new engagement models that better align mutual interests and incentives while considering the realities faced by healthcare innovators in the region may improve the success of private-private partnerships.
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
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.
Increasing Knowledge Sharing

East Africa’s leading universities and research centers have a strong tradition of public health and health systems research.

Higher education institutions across the region have limited course offerings on entrepreneurship and few locally written case studies.

Commercial entities are establishing research and entrepreneurship centers in the region in collaboration with and linked to local universities.

A strong focus on research and knowledge collation allows for entrepreneurs within an ecosystem to benefit both from tacit and codified expert knowledge.
Support organizations in the healthcare innovation ecosystem in East Africa need to become more sophisticated in discerning and addressing the needs of organizations at different stages.

Right support for right stage of growth

Support organizations in the healthcare innovation ecosystem in East Africa need to become more sophisticated in discerning and addressing the needs of organizations at different stages.

BLUESPRINT
Develop blueprint for the future business.
Your work is primarily in:
- Product Viability
- Customer Demand

VALIDATE
Test & refine the business model.
You are refining:
- Market Knowledge
- Customer Demand
& starting to show profitability:
- Unit Model

PREPARE
Enhance the conditions required for scaling.
You have a unit model that works, know when break-even can occur, and are working on:
- Barriers & Ramps
- Capacities
- Monitoring

SCALE
Roll out model to reach large numbers of customers.
You are continuing to refine:
- Market Knowledge
- Barriers & Ramps
- Capacities
- Monitoring

*Framework published in From Blueprint to Scale By Monitor Group, in collaboration with Acumen Fund

Duke SOCIAL ENTREPRENEURSHIP ACCELERATOR AT DUKE

USAID FROM THE AMERICAN PEOPLE
Next Steps: Where does your work fit into the healthcare innovation ecosystem?
Stay in touch!

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