SUSTAINABLE FINANCING FOR MHEALTH

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Applications that will serve specific Commodities Commission recommendations identified by the mHealth Alliance, and the financial models that show promise for sustainability

- Demand and Awareness
- Performance and Accountability
- Quality Monitoring
- Supply Chain Awareness
- Financial Barriers

Commodities Commission Recommendations

mHealth Applications

Financial Models
CONTENTS/AGENDA

- Report Overview and Scope
- Introduction to Value Chain Assessment
- Success Factors for mHealth Financial Sustainability and Scale
- Nigeria Use Case
- Questions & Answers
# CASE STUDY OVERVIEW

<table>
<thead>
<tr>
<th>mHealth Application Categories</th>
<th>Description</th>
<th>Case Studies</th>
</tr>
</thead>
</table>
| Demand & Awareness            | Widespread dissemination of mobile phone based messaging that promotes demand and utilization of health services and products. | Village Reach  
  - Financial Model: Donor and MNO supported; seeking to evolve  
  - Location: Malawi |
| Performance & Accountability | The use of mobile phone based point of care support tools for health workers (e.g., Checklist and protocols) | Switchboard  
  - Financial Model: Service revenues from a closed network of health workers  
  - Location: Liberia, Ghana, Tanzania |
| Quality Monitoring             | Mobile phone technologies used to monitor essential commodities to cut down the number of counterfeits on the market (e.g., mobile based barcode system) | Sproxil  
  - Financial Model: Service (drug authenticity, market intelligence, advisory consulting) and ad revenues  
  - Location: India, Nigeria, E Africa, Ghana |
| Supply Chain Awareness        | Evidence based mHealth solutions that identify where stock-outs are occurring and improve forecasts. (e.g., Supply chain management) | SMS for Life  
  - Financial Model: Government pays service fees to system provider  
  - Location: plans to scale in Kenya, Ghana, Cameroon |
| Financial Barriers            | Use of mobile phone based technologies to remove and/or address financial barriers | Changamka  
  - Financial Model: End users or donors pay for health savings and insurance services  
  - Location: Kenya |
VALUE CHAIN INTRO: MODELS FOR MSERVICES

Two-way Data Application Example™

Influencers
Government Ministries and International Bodies (e.g., Regulators)

Hardware Vendors
PDAs, Handsets
Laptops

Platform Developer

Mobile Services Provider
Voice, Data, Texting

Channel Partners
Health Workers, Microfinance Agents

Influencers

Content Providers
Content Aggregators
Content Developers

Project Implementers

Vertical IT Systems
Financial or Health Information Systems

Channel Partners

Funders
Banks
NGOs
Donors
Foundations

User

User

User

User

User

User

User
# VALUE CHAIN INTRO

**Functional roles and contributions to mHealth value chains**

<table>
<thead>
<tr>
<th>Component Providers</th>
<th>Influencers</th>
<th>Channel</th>
<th>End User</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developers or providers of essential component parts of the mHealth solution</td>
<td>Those that influence the environment for and uptake of products and services</td>
<td>Intermediaries aiding the delivery of goods and services to customers</td>
<td>The actual user of the mHealth service. May also be the Economic Buyer</td>
</tr>
<tr>
<td>Ex: mobile operators, handset makers, app developers, content providers</td>
<td>Ex: policymakers, regulators, academics</td>
<td>Ex: resellers, sales agents, health workers</td>
<td>Ex: individuals and households, health workers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Funders</th>
<th>Project Implementer</th>
<th>Influencers</th>
<th>Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funders pay to set up the operations</td>
<td>Develop and manage a project ongoing</td>
<td>Those that influence the environment for and uptake of products and services</td>
<td>Intermediaries aiding the delivery of goods and services to customers</td>
</tr>
<tr>
<td>Ex: Donors (foundations, multilaterals/governments), NGOs, Governments, Investors (individual investors, investment banks, angel funders)</td>
<td>Ex: NGOs, governments, social enterprises</td>
<td>Ex: policymakers, regulators, academics</td>
<td>Ex: resellers, sales agents, health workers</td>
</tr>
</tbody>
</table>

**Financial sustainability of mHealth projects requires an Economic Buyer(s)**
The Comparative Net Utility Equation™

Get - Give = Comparative Net Utility (aka Value Proposition)

Net value compared to all substitutes, direct competitors, and the option to do nothing. Impacted by:

- Level of country development
- Overall budget and resources for health
- Perceived scarcity of alternatives
- Cultural values
VALUE CHAIN INTRO
The Comparative Net Utility Equation™

VillageReach
- Telcos (Transport providers)
- Funders (Concern WW, mHAT)
- VillageReach (nonprofit)
- Future (MoH)
- eHealth Tech Provider (Baobab)
- MNO (e.g., Airtel)
- Community Members

Switchboard
- Funders (Ind. & in-kind donors, Google, Seeking grants)
- Switchboard (nonprofit)
- MoH
- MNO
- Health Worker

Sproxil
- Funders (e.g., Acumen)
- Pharma Mfr & Distributors (BIOFEM)
- Sproxil (social enterprise)
- Gov’t (NAFDAC)
- MNO
- Consumer

SMS for Life
- Donors
- Government (National Malaria Control Program)
- System Vendor (e.g., Vodafone, GreenMash, Minoxsy)
- SMS for Life Project Team (Sponsored by Novartis)
- NGOs
- MNO (e.g., MTN, Vodafone)
- Health Workers

Changamka
- Changamka
- Insurance Providers
- Government
- Donor Community
- MNO (Safaricom)
- Health Facilities
- End Users
SUCCESS FACTOR #1: KNOW THE STAKEHOLDERS

Characteristics that influence how organizations engage in mHealth value chains

- Organization Size
- Sector Membership: For-profit vs. Non-profit
- Short vs. Long term Time Horizon
- Repeat vs. New Economic Buyer
- International vs. Local
### SUCCESS FACTOR #2: ENSURE VALUE PROPOSITION FOR ALL STAKEHOLDERS

Value proposition: how mHealth helps stakeholders achieve their mission and goals vs. the next best alternative (including doing nothing)

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Comparative Net Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>• Improved health outcomes (e.g., longer life, higher quality of life)</td>
</tr>
<tr>
<td></td>
<td>• Efficiency gains and cost savings for health delivery</td>
</tr>
<tr>
<td></td>
<td>• Higher productivity levels for the overall economy</td>
</tr>
<tr>
<td>Non-Profit</td>
<td>• Improved health outcomes</td>
</tr>
<tr>
<td></td>
<td>• Efficiency gains and cost savings in achieving mission</td>
</tr>
<tr>
<td></td>
<td>• Increased donations/sales/revenues</td>
</tr>
<tr>
<td>For-Profit</td>
<td>• Increased sales/revenues</td>
</tr>
<tr>
<td></td>
<td>• Efficiency gains and cost savings in delivering products and services</td>
</tr>
<tr>
<td></td>
<td>• Improved health outcomes</td>
</tr>
<tr>
<td>Health Worker</td>
<td>• Improved health outcomes</td>
</tr>
<tr>
<td></td>
<td>• Efficiency gains and cost savings for health delivery</td>
</tr>
<tr>
<td></td>
<td>• Reputational benefits (i.e., standing in community)</td>
</tr>
<tr>
<td>Individuals &amp; HH</td>
<td>• Improved health outcomes</td>
</tr>
<tr>
<td></td>
<td>• Efficiency gains and cost savings in seeking health care</td>
</tr>
<tr>
<td></td>
<td>• Reputational benefits (i.e., standing in community)</td>
</tr>
<tr>
<td></td>
<td>• Higher productivity levels for household</td>
</tr>
</tbody>
</table>

*Note: Improved branding/PR is not a driver for long-term participation*
## SUCCESS FACTOR #3: PLAN FOR LONG-TERM ECONOMIC BUYER

<table>
<thead>
<tr>
<th>Demand &amp; Awareness</th>
<th>Public</th>
<th>Non-Profit</th>
<th>For-Profit</th>
<th>Health Workers</th>
<th>Individuals &amp; Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>If mHealth results in improved health outcomes</td>
<td>May be willing to pay if mHealth yields better outcomes than next-best alternative</td>
<td>Non-pharma advertising to consumers; Pharma outreach to health worker. Will need scale to warrant continued investments</td>
<td>May pay for education or product info that results in better care or increased efficiency or time savings</td>
<td>May pay for education or product info that results in better care or increased efficiency or time savings</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance &amp; Accountability</th>
<th>Public</th>
<th>Non-Profit</th>
<th>For-Profit</th>
<th>Health Workers</th>
<th>Individuals &amp; Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>If mHealth results in improved operational efficiency</td>
<td></td>
<td>Pharma interested in getting closer to target audience (health providers).</td>
<td>Affluent health workers pay to be part of closed network via non-network calls to family and friends (Switchboard model)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quality Monitoring</th>
<th>Public</th>
<th>Non-Profit</th>
<th>For-Profit</th>
<th>Health Workers</th>
<th>Individuals &amp; Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>May be willing to pay if it can be shown that anti-counterfeiting services improve health outcomes</td>
<td>Donor community and NGOs are not likely to become a long-term economic buyer.</td>
<td>Pharma mfrs and distributors have high pain point for counterfeit drugs and gain revenues from anti-counterfeiting services</td>
<td>Private clinics or pharmacies may be willing to pay for drug quality assurance</td>
<td>Affluent may be willing to pay to authenticate drugs and get peace of mind</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supply Chain Awareness</th>
<th>Public</th>
<th>Non-Profit</th>
<th>For-Profit</th>
<th>Health Workers</th>
<th>Individuals &amp; Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willing to pay where stock-out avoidance will improve healthcare delivery in critical areas</td>
<td></td>
<td>Willing to pay where stock-out avoidance will result in increased sales</td>
<td>Private clinics may be willing to pay to reduce stock-outs and improve quality of care</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financial Barriers</th>
<th>Public</th>
<th>Non-Profit</th>
<th>For-Profit</th>
<th>Health Workers</th>
<th>Individuals &amp; Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>May be willing to pay if health outcomes are improved through service provision</td>
<td>May be willing to pay if mHealth yields better outcomes than next-best alternative</td>
<td>Insurance providers are a potential participant, but need financial returns at scale to justify continued participation</td>
<td>Private clinics could benefit from higher traffic and improve operational efficiency</td>
<td>The poorest to whom these services are directed have need, but nominal ability to pay for service. Costs to stakeholder should be offset through alternative payers and models</td>
<td></td>
</tr>
</tbody>
</table>

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SUCCESS FACTOR #4: LOCALIZE THE BUSINESS MODEL

“I feel strongly that these solutions should be designed locally. It’s hard to ‘design from a distance’ or ‘lift and drop.’”

—Lisa Felton
Global Governance & Strategy Manager, Vodafone (SMS for Life)
SUCCESS FACTOR #5: PLAN FOR CAPACITY BUILDING, INCLUDING MONITORING & EVALUATION (M&E)

For-profit

Sound business case with a credible analysis on their ROI.

Public & Non-profit

Compelling impact assessment detailing the operational efficiencies and improvement in health outcomes achieved.
SUCCESS FACTOR #6: KEEP IT SIMPLE

“If you’re being innovative, don’t be any more innovative than you have to be - especially when it comes to money. Changing behavior is extremely difficult and changing the flow of money is even harder. Don’t reinvent a whole business ecosystem, especially if you can fit into an existing one.”

—Chris Bergstrom
Chief Strategy & Commercial Officer, WellDoc
SUCCESS FACTOR #7: UNDERSTAND THE PARTICULAR FUNDING NEEDS OF DIFFERENT MHEALTH APPLICATION TYPES

<table>
<thead>
<tr>
<th>mHealth Application Types</th>
<th>Evolutionary Phases of mHealth Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase of Development</td>
<td>Development</td>
</tr>
<tr>
<td>Type of Funding</td>
<td>Seed (Pilot)</td>
</tr>
<tr>
<td>Performance &amp; Accountability</td>
<td>Donor funding</td>
</tr>
<tr>
<td>Quality Monitoring</td>
<td></td>
</tr>
<tr>
<td>Supply Chain Awareness</td>
<td></td>
</tr>
<tr>
<td>Demand &amp; Awareness</td>
<td></td>
</tr>
<tr>
<td>Financial Barriers</td>
<td></td>
</tr>
</tbody>
</table>

**Conversion to economic buyer**

- Governments or donors as Economic Buyer
- For-profit as Economic Buyer
- For-profit as potential Economic Buyer with ongoing donor support
**NGERIAN USE CASE**

*mHealth projects in CC Recommendation Areas*

**Demand & Awareness**
- Etisalat’s Mobile Baby
- Abiye Project Pilot (Ondo State)

**Performance & Accountability**
- Madex (Mobile Application Data Exchange)

**Quality Monitoring**
- Sproxil

**Supply Chain Awareness**
- RapidSMS for ITN distribution
- RapidSMS for polio vaccine tracking

**Financial Barriers**
- Sure-P Conditional Cash Transfer
## Increase the actual or perceived value (or the “get”)

<table>
<thead>
<tr>
<th></th>
<th>Public</th>
<th>Non-Profit</th>
<th>For-Profit</th>
<th>Health Workers</th>
<th>Individuals &amp; Households</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demand &amp; Awareness</strong></td>
<td>Maternal /child health and polio</td>
<td>May be willing to pay if mHealth yields better outcomes than next-best alternative</td>
<td>Value to Pharma limited, but other advertisers may have interest</td>
<td>Etisalat Mobile Baby (already supported)</td>
<td>Etisalat Mobile Baby (already supported)</td>
</tr>
<tr>
<td><strong>Performance &amp; Accountability</strong></td>
<td>MADEX (already supported)</td>
<td>Pharma for MADEX, Switchboard</td>
<td>Switchboard (open to moving into Nigeria)</td>
<td></td>
<td>Not target audience or stakeholder that directly benefits from category</td>
</tr>
<tr>
<td><strong>Quality Monitoring</strong></td>
<td>Of interest, but may continue to let for-profit economic buyers take lead</td>
<td>Donor community and NGOs are not likely to become a long-term economic buyer.</td>
<td></td>
<td></td>
<td>Affluent may be willing to pay to authenticate drugs and get peace of mind</td>
</tr>
<tr>
<td><strong>Supply Chain Awareness</strong></td>
<td>Polio vaccine tracking (already supporting)</td>
<td>Pharma or other commodities mfrs for polio vaccine / ITN tracking</td>
<td>Private clinics may be willing to pay to reduce stock-outs and improve quality of care</td>
<td></td>
<td>Not target audience or stakeholder that directly benefits from category</td>
</tr>
<tr>
<td><strong>Financial Barriers</strong></td>
<td>Sure-P mHealth to extend subsidy or microinsurance services to poor women</td>
<td>May be willing to pay if mHealth yields better outcomes than next-best alternative</td>
<td>Commercial models that engage insurance sector should be evaluated long-term</td>
<td>Private clinics may be interested but are likely catering to affluent patients who don’t need services</td>
<td>Commercial models that engage end users as payers should be evaluated long-term</td>
</tr>
</tbody>
</table>

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THANK YOU!

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