Using Mobile Phones to Improve Family Planning Services in Malawi

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Knowledge for Health (K4Health)

• A global knowledge sharing project focused on FP/RH and HIV&AIDS at the global, regional and national levels.

K4Health Malawi

• 18 month demonstration project (January 2010 – June 2011) funded by USAID through the K4Health project and implemented by Management Sciences for Health.

• Tested different ways to improve the exchange and use of Family Planning and HIV knowledge within the health system in Malawi
Population Statistics

- 13 million people in 2008
- 85% reside in rural areas
- 52% population under 18
- Average 6 births per woman
- 35% teens 15-19 bear children
- 12% HIV prevalence
- 42% Contraceptive Prevalence Rate
Goal: To provide access to and promote the use of information for FP/RH and HIV/AIDS health workers, managers, and service providers at the national, district, and community levels to improve service delivery in Malawi.
Design of the K4Health Malawi Project

3 key interventions:

National level: Establishment of a Knowledge Management Working Group and development of toolkits that contain easy to access Malawi specific FP/RH and HIV/AIDS information resources.

District level: Establishment of two District Learning Centers in Salima and Nkhotakota.

Community level: Establishment of a mobile phone network between District Health facilities and CHWs and between the CHWs themselves.
K4Health Malawi Project Timeline

- **Project Launch**: Feb 2010
- **Project Implementation (18 months)**
  - Early Measures of Sustainability Study (Dec 2010)
  - Mid Term Survey (Nov 2010)
- **2009**
  - Needs Assessment (June-Sept 2009)
  - Social Network Analysis Analysis baseline (March 2010)
- **2010**
  - Project Implementation (18 months)
  - Discussions begin with Air Tel companies in Malawi
  - 4 Toolkits, 2DLCs, 638 Mobile phones/SMS
- **2011**
  - Project Ends (June 2011)
  - Post project (6 months)
  - End Line Assessments LQAS, FGDs, Net-Map (May 2011)
eToolkits

National Level Results

4 Malawi specific toolkits created

1. Family Planning
2. Maternal and Neon Health
3. Young People and Reproductive Health
4. HIV/AIDS
District Learning Centers (DLC)

District Level Results: 2 DLCs established

- Increased access to family planning resources
- Increased efficiency of referrals
- Improved reporting
- Promoted a culture of knowledge sharing
- Facilitated better communication between CHWs, health facilities and DHO
- Provided more reliable clinical information to treat patients
mHealth - design

Timeline: May 2010 – June 2011

Resources: $30 mobile phones and $9 solar chargers for 638 CHWs in 2 districts

Partnership: FrontlineSMS; MOH; BASICS; Zain Air Tel Company, and other SMS projects

SMS system:

1. SMS alert system (i.e. notification of community vaccination dates, trainings, etc)
2. Peer-to-peer SMS network (ongoing support for CHWs)
3. On-demand automated FP/RH info and tips (immediate info on dosages or other automated responses to FAQ)
mHealth: how it works

In a remote area, a Community Health Worker (CHW) or client has a question. The CHW sends an SMS to the HUB at the district hospital, using a direct line or key word messaging, or to other CHWs in the district. They receive an answer via SMS from the HUB, District Coordinator, or another CHW. The CHW can now make a more informed decision and provide case specific guidance to clients. The average time required to contact and receive feedback from the person providing technical support is 9 minutes.

- **Step 1:** Client/CHW has a question
- **Step 2:** CHW sends question via SMS
- **Step 3:** District responds
- **Step 4:** CHW receives answer via SMS
- **Step 5:** CHW takes action
mHealth: Results

Community Level Results: Travel costs reduced by 90%

The cost in local currency (MWK) of various modes of communication

<table>
<thead>
<tr>
<th>Mode</th>
<th>Cost (MWK)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMS</td>
<td>11</td>
</tr>
<tr>
<td>Phone call</td>
<td>108</td>
</tr>
<tr>
<td>Hired push bike</td>
<td>406</td>
</tr>
<tr>
<td>Public transport</td>
<td>464</td>
</tr>
</tbody>
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Community Level Results: Time saved using SMS Network

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SMS Users (Salima and Nkhotakota) n=76</th>
<th>Control district Endline (Nkhatabay) n=76</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average time required for providers to report important events (stock outs, transportation breakdowns)</td>
<td>3 Minutes</td>
<td>523 minutes (9 hrs)</td>
</tr>
<tr>
<td>Average time required to contact and receive feedback from the person providing technical support</td>
<td>9 minutes</td>
<td>1498 minutes (1 day)</td>
</tr>
<tr>
<td>Average time required for providers to receive feedback on important questions (e.g. specific medical conditions, effects of contraceptive uses, dosage amounts)</td>
<td>35 Minutes</td>
<td>975 minutes (16 hrs)</td>
</tr>
<tr>
<td>Average amount of time saved by using SMS over walking or taking transportation to nearest health center to report and receive support</td>
<td>1741 minutes (29 hrs)</td>
<td>NA</td>
</tr>
</tbody>
</table>
mHealth: Results

Community Level Results:

- Decreased stock out time
- Increased efficiency of referrals
- Widened service coverage
- Increased CHW self-confidence
- Increased trust between CHWs and the communities
- Increased promptness in response to emergencies (obstetric) and outbreaks (measles, etc)
Sustainability Efforts

- Malawi Ministry of Health –HEU oversight
- National Technical Working Groups to maintain electronic toolkits.
- 2 Districts have incorporated monthly internet subscriptions and seconded staff for learning centers.
- “Early Measures of Sustainability” Evaluation
Next Steps...

These results provide us the evidence we can use to

- Influence policy to implement mHealth programs

- Scale up mHealth programs to widen and improve Family Planning service delivery

- Form partnerships with private sector and take innovations to scale
For more information

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Visit:
http://www.k4health.org/malawi#toolkits
Thank you

Knowledge for Health