Mobiles in Malawi

a rural healthcare initiative
Namitete, Malawi
St. Gabriel’s Hospital

- 1/4 million people
- 100 miles in each direction
- 2 doctors
- 400+ CHWs
FrontlineSMS + Healthcare
Recycled cell phones

$10/handset
Labels

ID #s
CHW Training
Now...

- Requests for remote patient care
- Tracking patients and doing follow-ups via SMS
- Auto-replies with correct drug dosage/usage info
- HIV + TB drug adherence records
- Patient status records
- Coordinate and mobilize
Medical response

- 130 patients in 5 months
- 500 hrs saved
- 520 patient updates
- $1,000 in fuel saved
400 ART adherence updates

900 hours of travel time saved
700 hours of follow-up time saved

$2,000 in motorbike fuel saved

100 new patients enrolled in TB treatment program
CHW in village with cell phone

to

FrontlineSMS at hospital

to

Gmail

to

iPhone at Stanford
Translate Chichewa to English, and code every SMS...

<table>
<thead>
<tr>
<th>Purpose of Message</th>
<th>Number of Messages</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report Symptoms</td>
<td>199</td>
<td>14.96%</td>
</tr>
<tr>
<td>Supplies</td>
<td>59</td>
<td>4.44%</td>
</tr>
<tr>
<td>Patient Reporting and Referrals</td>
<td>410</td>
<td>30.83%</td>
</tr>
<tr>
<td>Deaths</td>
<td>75</td>
<td>5.64%</td>
</tr>
<tr>
<td>Request for Help</td>
<td>107</td>
<td>8.05%</td>
</tr>
<tr>
<td>Phone Problems</td>
<td>28</td>
<td>2.11%</td>
</tr>
<tr>
<td>Meetings</td>
<td>60</td>
<td>4.51%</td>
</tr>
<tr>
<td>Other</td>
<td>173</td>
<td>13.00%</td>
</tr>
<tr>
<td>Request for Units</td>
<td>219</td>
<td>16.47%</td>
</tr>
<tr>
<td>Total</td>
<td>1330</td>
<td>100%</td>
</tr>
</tbody>
</table>

**All Messages**
- Reporting Symptoms
- Supplies
- Patient Updates and Referrals
- Meetings
- Phone problems
- Requests for help
- Deaths
- Requests for units
Symptoms within incoming text messages

<table>
<thead>
<tr>
<th>Symptom/Illness Classification</th>
<th>Number of Messages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digestive &amp; Urinary Tract</td>
<td>41</td>
</tr>
<tr>
<td>Pain</td>
<td>39</td>
</tr>
<tr>
<td>Swelling</td>
<td>35</td>
</tr>
<tr>
<td>Respiratory Tract</td>
<td>32</td>
</tr>
<tr>
<td>Skin &amp; Sores</td>
<td>25</td>
</tr>
<tr>
<td>Malaria &amp; Fever</td>
<td>23</td>
</tr>
<tr>
<td>Weakness</td>
<td>15</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>9</td>
</tr>
<tr>
<td>Heart Problems</td>
<td>8</td>
</tr>
<tr>
<td>Cancer</td>
<td>3</td>
</tr>
</tbody>
</table>

Symptom Analysis

- Digestive & Urinary Tract: 15%
- Pain: 16%
- Swelling: 9%
- Respiratory Tract: 8%
- Skin & Sores: 6%
- Malaria & Fever: 5%
- Weakness: 4%
- Other: 3%
- HIV/AIDS: 3%
- Heart Problems: 2%
- Cancer: 1%
Things we had to figure out, on the ground:

1. Getting communication credit to the CHWs

2. Charging the phones
“34 Units”
WHY NOT ME BARBER SHOP

PHONE CHARGE

K20
Why FrontlineSMS Works

1. It is free
2. Works with readily-available hardware
3. Doesn’t require an internet connection
4. Intuitive and easy to use
5. The hospital found the tool, and not the other way around
6. Straightforward features enable local ownership and creativity
7. Only need 10 seconds to demonstrate the tech’s purpose
Thanks!

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