RapidSMS Rwanda

This system improves antenatal and neonatal service delivery at the village level. The system helps community health workers track pregnancies, report on danger signs during pregnancy, subscribe to emergency alerts to ensure that women can access emergency obstetric care, and provides a real-time national surveillance mechanism for maternal health.

**Challenge(s)**
Women in remote communities lack access to clinic-based antenatal care.

**Audience**
Community Health Workers, Ministry of Health

**Key Technologies**
Mobile Phones, RapidSMS, Web Management Interface

**Metrics/Evidence**
After a number of successful pilots, Rwanda is currently deploying this system nation-wide.
Project Mwana

The Mwana Initiative has improved test result turn-around time by over 50%. It delivers early infant diagnosis (HIV) results to rural and under-served communities in Zambia and Malawi via text messages rather than paper. Community Health Workers also register births and trace patients via SMS to ensure that they receive key childhood interventions.

**Challenge(s)**
Logistical challenges in remote communities delay EID results and subsequent interventions.

**Audience**
Community Health Workers

**Key Technologies**
Basic Mobile Phones, RapidSMS

**Metrics/Evidence**
EID test result turn-around time improved by over 50%.
M-Trac

M-Trac is a SMS-based disease surveillance and medicine tracking system. It provides real-time data for response while monitoring health service delivery performance. The initiative also integrates governance and accountability through citizen feedback, an anonymous hotline and public dialogue sessions. UNICEF Uganda and the Ministry of Health are rolling this out nationwide in 2012-2014.

Challenge(s)
With limited infrastructure and supply shortages, it is difficult to maintain a healthy supply chain of essential medicines.

Audience
Clinic Staff, District and Regional Management, Ministry of Health

Key Technologies
Mobile Phones, RapidSMS, Web Management Interface

Metrics/Evidence
M-Trac is to be rolled out nationwide over the next 2 years.
The Pamoja Project

The Pamoja SMS project supports implementation and expansion of high quality HIV prevention, care and treatment services at facilities. Twice a week, SMS messages and emails are sent to health workers in Pamoja-supported sites, encouraging them to handle service delivery differently (e.g. decentralization, task shifting, integration of services, mentoring) and provide important updates in key services. The goal is to improve access to quality care by improving local capacity for long term sustainability.

Challenge(s)

Educate healthworkers and encourage task shifting/sharing, decentralization, integration of services, and mentoring/training.

Audience

Facility Healthcare Workers, Program Staff

Key Technologies

Mobile Phones, Email

Metrics/Evidence

The project has boosted morale and cooperation among over 250 health workers at 150+ facilities.
EGPAF is implementing a performance-based financing (PBF) program to improve health outcomes in Gaza and Nampula provinces. The PBF program is used to decentralize resources and motivate healthcare providers to improve quality of services. The facility healthcare workers are aware of the incentives offered and so there is a need to verify the quality of the services provided and the data reported. EpiSurveyor surveys via mobile phones collect data that verify the quality of services.

<table>
<thead>
<tr>
<th>Challenge(s)</th>
<th>Audience</th>
<th>Key Technologies</th>
<th>Metrics/Evidence</th>
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<tbody>
<tr>
<td>PBF outputs need to be verified by external data audits at the community level. Paper surveys are costly and time consuming.</td>
<td>Facility Healthcare Workers, Data Auditors</td>
<td>Mobile Phones, EpiSurveyor, Backup Database</td>
<td>Verification of PBF outputs has shown improved quality of care, worker motivation and reinforced accountability.</td>
</tr>
</tbody>
</table>

**3 MONTHS**

- **Performance-based financing (PBF) program**
- **Quarterly PBF quantity verification by field teams and MOH**
- **Semi-annual PBF community verification by independent entity**

**Key Technologies**
- Mobile Phones
- EpiSurveyor
- Backup Database

**Audience**
- Facility Healthcare Workers
- Data Auditors

**Metrics/Evidence**
- Verification of PBF outputs has shown improved quality of care, worker motivation and reinforced accountability.
Improving EID TAT

SMS printers are used to improve early infant diagnosis (EID) turnaround times (TAT) enabling early initiation of pediatric ART. Currently installed at 33 sites, results are received directly from the zonal facility following sample analysis and data entry. This has reduced the early infant diagnosis turnaround time to below one month (2 weeks average).

Challenge(s)
Previously, the dry blood spot (DBS) test results took 8-12 weeks. This delay resulted in loss to follow-up of the infant.

Audience
Facility Healthcare Workers, Zonal Laboratory Technicians

Key Technologies
Mobile Phones, SMS printers

Metrics/Evidence
TAT of results from zonal laboratory to health facilities was reduced from three months to an average of two weeks.
MAMA South Africa

MAMA South Africa provides vital health information via mobile phones to expectant and new mothers and their families, supporting them week-by-week during pregnancy and the first year of baby's life. Most South African moms-to-be learn that they are HIV positive for the first time during pregnancy, and lack social support to help them cope with the diagnosis of a life threatening disease while adjusting to the demands of pregnancy and a new baby.

**Challenge(s)**
Maternal deaths have increased 400% since 1998, 40% due to HIV/AIDS. Mothers need caring, accurate, straightforward information that is timely and discreet.

**Audience**
Low-income and at-risk expectant and new mothers, as well as their household decision makers.

**Key Technologies**
Mobile Website/Community Portal (askmama.mobi), staged SMS messages, interactive quizzes via USSD.

**Metrics/Evidence**
MAMA will target 500,000 women and household decision makers over two years. 100 registered for SMS services in first two weeks.

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**MOTHER**

**CHILD**

**PREGNANCY**

1st TRIMESTER

- Self-registration of mobile website users
- SMS users registered by fieldworkers; opt-in for HIV+ messaging

2nd AND 3rd TRIMESTER

- Info on PMTCT, testing, TB screening, CD4 count
- Info on ARVs in labor

**LABOR & BIRTH**

- Info on post-natal visit, exclusive breastfeeding, birth registration
- Info on ARVs in labor

**POSTPARTUM/ BREASTFEEDING**

- Info on EID, CTX
- Info on infant feeding, weaning, HIV re-testing, CD4 counts
Mother Baby Pair Tracking

The MBPT project tracks the evolution and relationship of pregnant HIV positive mothers to prevent transmission to their infants once born. A custom smartphone application tracks the relationship lifecycle to ensure maximum efficiency and impact for the m2m support procedure. The software supports the interaction between mentor mother and client; clients are notified, reminded, and accounted for. The mentor mother also has access to the clients profile and information on her phone.

**Challenge(s)**
Introduction of technology to relationship, training, working environment, security, data quality, how to pair after initial visit.

**Audience**
Clients, Mentor Mothers, Management, Governments, NGOs

**Key Technologies**
Smartphones, Android OS, SMS gateway, FrontlineSMS, onBase ECM app/server, auto-indexing, keywords, document scanning

**Metrics/Evidence**
The project has cut time spent recording data on-site. Real-time analytics are also being collected to review the overall process.

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**MOTHER**

**PREGNANCY**

1st TRIMESTER

- Pregnancy Registered
- CD4 Test
- CD4 Results
- Follow-up Review
- PCTMT treatment
- Infant CD4 results
- Delivery Date
- PCR Test
- 18 month follow up

**LABOR & BIRTH**

**POSTPARTUM/ BREASTFEEDING**

**CHILD**

**INFANCY**

**CHILDHOOD**

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Tim Nichols
mothers2mothers, South Africa

David Torres
mothers2mothers, South Africa
Me and My Family
Where do I live and with whom? What is my level of education? What is my religion?

My Day to Day
What do I do everyday? Do I have a job? How do I get to work? Do I have a mobile phone?

Caring for Myself and My Family
How do I care for myself and my family when care is needed? Does my family support my decision to seek healthcare?

The Healthcare System
What is it like where I live? Who are the people involved? Do I use it? Do I trust it?
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**MOTHER**

**Lenshina**

**Kenya**

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COMMUNITY HEALTH WORKER

Me and My Community
Where do I live and with whom? What is my level of education and literacy? Are my family and community supportive of my work?

Caring for My Community
What motivates me? Do I have the resources that I need? How do I know that I’m doing a good job? When do I feel like I’m helping people? When do I feel like I can’t help?

My Week Providing Care
How do I balance my job with my work at the clinic? When do I receive training and supervision? Do I have a mobile phone?

The Healthcare System
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My Day to Day
What does a typical day look like for me? Which tools do I use on a daily basis? What is a really good day for me? A really bad day?

My Duties Throughout the Year
How often do I interact with the national health ministry? What’s involved in these interactions? What evidence do I show to prove that I’m doing a good job?

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