COUNTRY UPDATE: BANGLADESH
Presentation to mHEALTH WORKING GROUP

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Strengthening Health Outcomes through the Private Sector (SHOPS) project
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Background

- Launched as part of the US Global Health Initiative
  - Focus on women
  - Encourage country ownership
  - Leverage technology to support development goals
  - Promote private sector engagement, research, innovation

- Why Bangladesh?
  - Build upon USAID and GOB MCH and FP programs, as well as the positive momentum toward achieving MDGs 4 & 5
  - Alignment of GOB Digital Bangladesh initiative with MAMA goals
  - Active mhealth landscape (many pilots, high mobile phone penetration, interest from technology vendors and MNOs)
Overview

- Inception: Public-private coalition convened in late 2010 with catalytic funding from USAID under GHI
- Goal: Contribute to a reduction in maternal and neonatal mortality
- Purpose: Improve health-seeking and preventative behaviors of pregnant women, new mothers and their families
- Objectives: Reach 500,000 women within 3 years with health information, leading to sustained improvements in health knowledge, behaviors and outcomes
- Intervention: Deliver behavior change and communication (BCC) messages (audio and text) using mobile phone technology
Aponjon Service Description

Expectant women/new mothers sign up for service

Users receive 2 health-related messages weekly

Partner advertising and advocacy will drive subscription levels

“"If you have any bleeding during this month, seek medical attention right away”

“"Your baby needs an immunization this week to stay healthy, available free at all clinics”

Messages will provide critical life-saving information, leading to improved health knowledge, behaviors and outcomes
## Guiding Principles in Action

| Broad coalition of public and private partners | • 25+ implementing and resource partner agreements under contract or in negotiation  
|                                               | • Locally designed, implemented, owned, co-funded, championed |
| National scale | • Available through all six licensed mobile operators  
|                | • To be extensively promoted through national and local mass media |
| Sustainable financial model | • Innovative piloting of user fees, subsidies, message sponsorship and corporate donations |
| Equitable access by poor populations | • Targeting rural and urban poor through aggressive outreach campaigns, subsidies  
|                                          | • Audio content for low literacy populations |
| Interoperable, open source platform | • Partnering with global open source technology NGO to create replicable platform |
| Vetted, evidence-based health content | • Health Advisory Board under leadership of MOH |
| Robust monitoring and evaluation | • Rigorous impact evaluation to be conducted by external research institution |
## DRAFT Results Framework

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>OUTPUTS</th>
<th>OUTCOMES</th>
<th>IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coalition partnerships</td>
<td>Subscribers registered</td>
<td>Increased knowledge</td>
<td>Increased use of services</td>
</tr>
<tr>
<td>Software platform</td>
<td>Messages delivered</td>
<td>Increased care-seeking</td>
<td>Reduced maternal MMR</td>
</tr>
<tr>
<td>Content development</td>
<td>Funds leveraged</td>
<td>Expanded platform of services</td>
<td>Reduced infant MMR</td>
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<tr>
<td>Promotion</td>
<td>MAMA awareness among target audience</td>
<td>Sustainable local ownership</td>
<td>Global replicability</td>
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<td>Research</td>
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Monitoring and Evaluation

- Plans underway for USAID funded research to measure behavioral outcomes
  - Research partner: International Centre for Diarrheal Disease Research, Bangladesh (ICDDR,B)
- Parameters
  - Methodology TBD (e.g., could be RCT but depends on funding, needs, etc.)
  - Conducted by independent research organization with no role in implementation
    - Consistent with USAID M&E policies
  - Multi-year study, with baseline data to be collected late 2011
## Illustrative MAMA Metrics

<table>
<thead>
<tr>
<th>Platform costs</th>
<th>Local capacity expanded</th>
<th>% four ANC visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost per user</td>
<td>Information disseminated</td>
<td>% births with skilled attendants</td>
</tr>
<tr>
<td>Promotional materials</td>
<td>Cost per subscriber</td>
<td>% exclusive breastfeeding</td>
</tr>
<tr>
<td># outreach partners</td>
<td>Funds leveraged</td>
<td>% use contraception</td>
</tr>
<tr>
<td></td>
<td># Subscribers with the target profile</td>
<td>% complete immunizations</td>
</tr>
<tr>
<td></td>
<td>Messages accessed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subscribers retained/cancelled</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peer-to-peer references</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Geographic coverage</td>
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## Timeline

<table>
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<tr>
<th>Period</th>
<th>Phase</th>
<th>Activities</th>
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| July 2010 – Aug 2011        | CATALYZE & CONVENE             | • Assessment  
• Formative research on needs  
• Coalition formation  
• Content approval  
• Platform development  
• Regulatory approvals  
• Outreach training    |
| Aug 2011- Feb 2012         | DESIGN & TEST PHASE            | • Pilot with 2000 women/ “gatekeepers”  
• Formative research on user experience  
• Mobile operator agreements  
• Corporate sponsorships |
| Feb 2012-Dec 2014          | NATIONAL LAUNCH                | • Marketing and national promotion  
• Metric monitoring  
• Content/format adaptation  
• Impact evaluation  
• Service evolution   |

**Timeline:**
- **Feb 2012- Dec 2014**
### Ethnographic Research with Users

<table>
<thead>
<tr>
<th>User Needs</th>
<th>Message Format</th>
<th>Brand</th>
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</thead>
<tbody>
<tr>
<td>Sample 168, 55% below poverty level</td>
<td>30 users, 3 sample formats</td>
<td>114 users, 7 locations</td>
</tr>
<tr>
<td>•Access to healthcare providers depends on family support</td>
<td>•Drama format preferred for myths/assurances</td>
<td>Themes important to MAMA brand identity values</td>
</tr>
<tr>
<td>•80% phone availability, but only 40% have direct access</td>
<td>•Direct information approach preferred for “serious” information</td>
<td>•information reliability</td>
</tr>
<tr>
<td>•Trust agents critical to access mobile phone information</td>
<td>•Preference for female voice, non-medical vocabulary</td>
<td>•trusted source</td>
</tr>
<tr>
<td></td>
<td></td>
<td>•privacy /discretion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>•aspirational</td>
</tr>
<tr>
<td></td>
<td></td>
<td>•pioneering</td>
</tr>
<tr>
<td></td>
<td></td>
<td>•Audience communications audit to inform media strategy</td>
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Pilot Phase Formative Research Objectives

- To determine level of acceptability of service format and content specific to user needs
  - Includes coverage, duration of delivery, length of messages, language, animation of messages, comprehension, style, comprehensiveness, usefulness, completeness, convenience, ease of use
- To determine service affordability to users, pricing and subsidy policies, billing modalities for national scale-up, and inputs to business model
- To understand role of husband/guardian/gatekeepers vis-à-vis the service and determine engagement strategy
- To determine feasibility of engagement of community health workers for effective delivery of information service to marginalized users

Pilot design: 2000 users, 13 locations, 6 months of testing
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<tr>
<th>Founding Partners and Roles (1)</th>
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<tr>
<td><strong>Leadership and Funding</strong></td>
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</table>
| Profile: United States Agency for International Development, in collaboration with U.S. House Office of Science and Technology Policy and Johnson and Johnson  
Role: Catalyze and convene coalition formation, establish guiding principles, design and evaluation support |
| **Govt. Stewardship**          |
| Profile: Minister of Health, through unifying efforts of Access to Information, Prime Minister’s Office  
Role: Lead Health Advisory Board overseeing health content, facilitate national promotion |
| **Coalition Coordinator**      |
| Profile: D.Net, expertise in ICT for development, program management  
Role: Resource mobilization, leads service design and development, manages coalition development and support |
| **Outreach**                   |
| Profile: BRAC, Smiling Sun, Save the Children, NGOs who serve target beneficiaries  
Role: Enroll subscribers from existing clients, support capture on user experience |
| **Content Development**        |
| Profile: Multimedia Content & Communications, expertise in BCC for development, multimedia formats, with input from MCHIP/Save the Children for raw evidence-based health inputs and BabyCenter for overall guidance  
Role: SMS and IVR content (stage-based messaging) based on formative research |
| **Technology Platform**        |
| Profile: SSD-Tech (selected through RFP), expertise in design and development of Interactive Voice Response and SMS systems; InSTEDD, a global technology NGO  
Role: Design, build, host, test, maintain, and manage platform; goal is open source |
MAMA Bangladesh Partners as of July 2011

**Lead Partners**
- USAID
- Ministry of Health and Family Welfare
- Johnson & Johnson

**Implementing Partners**
- InSTEDD
- SSC-Tech
- D-Net
- ICDDR, B

**Supporting Partners**
- Beximco
- Multimade
- MCCA
- McC
- Multimedia Content and Communications
- Banglalink
- Airtel
- Grameenphone
- Airtel
- Grameenphone
- Airtel
- Grameenphone

**Corporate Sponsors**
- Save the Children
- BRAC
- Smiling Sun

**Outreach - NGO**
- Save the Children
- BRAC
- Smiling Sun

**Outreach - Government**
- Ministry of Health and Family Welfare

**Media**
- Unitrend Limited
- Brand Forum

**Research**
MAMA Bangladesh Technology Platform Overview

- Initial landscape analysis
  - Text, recorded voice, call centers
- RFP: SSD-Tech
  - Provider of successful BBC Janala IVR platform
- Design elements MAMA Bangladesh
  - Mobile operator considerations
- Role of InSTEDD: open source evolution
  - Open source barriers and limitations
Choice of IVR as Main Platform

- Research indicated texting not suitable for substantial portion of target audience: need voice
- Live call centers popular in Bangladesh, but cost prohibitive
- Interactive Voice Response (IVR) platform
  - Overcomes low literacy barriers, Bangla language information
  - Less costly than call centers, interactive, automated and scalable
  - Key challenges include ease of navigation, cultural preferences, and license fees for proprietary systems
SSD-Tech: Technology Platform

Status

- SSD-Tech selected through RFP process
  - Also provides IVR platform for fast-growing BBC Janala
- Service Design Description finalized
  - SMS and IVR; separate registration paths for health workers & end-users; extensive reporting fields
- MAMA short code obtained

Considerations

- Tied to proprietary system
- Billing limitations
  - Calling Party Pays pose problems for “push” messaging model
  - Distributed charging gateways versus centralized platform
- Variable charges (e.g. fee versus free) problematic for networks to implement
  - May provide manual “topping up” to subsidize eligible users
MAMA guiding principles encourage open source, open architecture
- But no IVR open source platform exists with sufficient reliability and capacity – this is a global challenge
- Bangladesh mobile operators will only work with proven proprietary solutions

InSTEDD, technology NGO with expertise in voice systems, under contract to design transition from proprietary to open source
- Collaborating with SSD-Tech, D.Net to create a “bridge” between top API layer and proprietary underlying platform, expand portability across countries
- Use of “cloud computing” to engage global open source experts in solution
- Seek to transition MAMA traffic over three years as platform proves its capacity and reliability

Goal is to develop open source IVR platform to support low cost voice applications globally
Seeking cost share partners to fund
Requires host organization to manage, promote open source upgrades long-term
MAMA Bangladesh Business Model Overview

- Innovation in cost-recovery for optimal scale and impact
  - Piloting alternative approaches
  - Adaptation of commercial models
  - Leverage USAID catalytic funds
Corporate Sponsorships

**Status**
- Broad outreach
  - US Ambassador-hosted event, Chambers of Commerce, associations, Brand Forum
- Developed tiers of sponsorships
  - Includes cash/in-kind contributions, menu of visibility benefits
- Currently 9 companies in active negotiation for contributions > +$200K
  - USAID perceived as desirable partner
  - New law promotes CSR through tax breaks

**Considerations**
- Sector exclusivity highly valued (“the” MAMA insurance sponsor) but hard to implement
  - Companies diversified into conglomerates with many lines of business
- In-kind contributions (promotional channels, outreach) preferred over cash
Corporate Sponsorship Approach:
CSR to Advance Business Interests

- Sponsorship proposals combine commercial and philanthropic goals
  - Link to other corporate initiatives such as supporting women’s microfinance groups
  - Co-branded promotions through existing POS marketing
  - Tie percent product proceeds to support Aponjon

- Sponsor recognition
  - Provide levels of visibility tied to value of contributions (e.g. international v national v regional)
  - Recorded Aponjon message ads “this message brought to you by”
Other Funding Sources

- Users fees: Piloting willingness to pay per call charges
  - Consistent with other VAS such as Healthline
  - Revenue-sharing agreements with mobile operators key to marketing support
  - Subsidies for lowest income subscribers

- Service bundling
  - E.g. BRAC micro-insurance plans, micro-credit memberships targeting women, voucher programs
  - Expands partnerships with trusted sources
MAMA Bangladesh Business Model

Start-up / Launch

Post-launch sustainability

USAID (convening, design)
USAID B’desh (partnerships, national scale)
GOB (oversight, promotion)
User Fees
Message ads
Corporates (Cash, In-kind contribution)

Recurring revenue

Revenue Generation

Start-up costs
Revenue Breakdown

100%
75%
50%
25%

Y1
Y2
Y3

USAID Support
MAMA Bangladesh