Family planning via mobile phones: Proof-of-concept testing in India

Katherine Lavoie, Meredith Puleio, Priya Jha
Institute for Reproductive Health
Georgetown University
Mobile phone landscape

- Fastest growing technology in developing world and recognized as a powerful tool for international development
- 3 billion (out of 4.1 billion) use SMS
- Majority of subscribers men and women ages 15-49
- India has fastest growing telecom market in the world
- Rural and urban areas driving growth
Mobiles for health (mHealth)

• Data collection
  • MIS, patient records, monitoring, program coordination
• Health education
  • providing health information to population (promotion, prevention, medication adherence, VCT services, etc.)
  • mLearning (i.e. training of CHWs)
• Telemedicine
  • administering healthcare to patients from a distance
CycleTel™: The Concept

- mHealth solution for the Standard Days Method® (SDM)
- Woman sends the date of her menses
- User receives text messages with fertility status
- Additional messages support correct use, info on other RH issues
Standard Days Method® (SDM)

What is SDM?
• Identifies days 8 to 19 of the cycle as fertile
• Appropriate for women with menstrual cycles 26-32 days long
• Couples use condoms or avoid sex on fertile days to prevent pregnancy

Facts:
• Modern natural family planning method
• 95% effective with correct use
• Included in international FP guidelines (WHO)
• Offered over 30 countries worldwide
Value of proof-of-concept testing

- Confirm interest in the concept among target population
- Ensure that the technology and content are appropriate for the environment and the intended users
- Enable users to have input into the service and guide development of product
Target population: Lucknow, Uttar Pradesh

- Urban population of 2.7 millions
- 14% of women use traditional methods
- 16% of women have unmet need for family planning
- Previous research by IRH suggests that SDM is a feasible and desirable FP option
# Research Methods

<table>
<thead>
<tr>
<th>3 Phases</th>
<th>Objectives</th>
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</thead>
<tbody>
<tr>
<td><strong>Focus Group Discussions</strong></td>
<td>• Understand phone use patterns</td>
</tr>
<tr>
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<td>• Determine potential interest among target audience</td>
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<td>• Explore appropriate messaging and preferences for the service</td>
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<td><strong>Cognitive Interviews</strong></td>
<td>• Verify comprehension of messages</td>
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<td>• Adapt and finalize messages</td>
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<td><strong>Manual testing with ~30 couples</strong></td>
<td>• Enroll women for 2 cycles to assess feasibility, satisfaction and correct method use (using FrontlineSMS software)</td>
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<td>• Troubleshoot problems and determine how to improve service</td>
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Phase 1: Focus group discussions

54 participants interviewed:
- 4 groups of women (n=32)
- 2 groups of men (n=16)
- 1 group of couples (n=6)

All focus group participants:
- Married, age 18-28
- Owned a mobile
- Had need for family planning
Focus Group Results
Finding 1: Need and demand exists.

- Strong interest among men and women in natural methods, but lack correct knowledge of fertile days
- Both women and men are interested in the service
- Service fits within mobile phone use patterns of target population

“This is an idea that can change your life.”
-Male participant

Finding 2: Messages should be precise, non-technical.

- Preference for “safe/unsafe day” rather than “you can/cannot get pregnant today” to protect privacy
- Preference for messages only on unsafe days
- Prefer minimum information about length of fertile window (only when it begins/ends)

Phrase “fertile day” perceived as degrading to women.
Finding 3:
SMS - in Hinglish – are best.

“Aaj asurakshat din hai.”

- Messages should be Hindi words spelled with Roman alphabet
- Prefer text rather than voice messages

Finding 4:
Males may sign up for the service.
Half of the male respondents through both partners should receive messages.

Finding 5:
People are willing to pay for a monthly service.

- Women: Rs 20-25
- Males: Rs 15
- Couples: Rs 30-35
Lessons for mHealth

• Confidentiality is an issue – even when cell phones are individually owned.

• Assess feasibility of sending messages in languages based on non-Roman alphabet.

• Reduce frequency of messages and keep wording precise.

• Ensure that the mHealth solution addresses a definite local need.
Next steps for CycleTel

1. Complete proof-of-concept testing
   • Cognitive interviews
   • Manual testing with couples using open source software, FrontlineSMS

2. Software development
   • Technology partner: Voxiva, Inc.
   • Considerations: flexible platform, real time data collection, interoperable, handles large # of long-term users, able to send high volume of messages
Next steps continued...

3. Pilot test software in India
   - with ~500 users
   - adapt technology accordingly

4. Expansion in India and adaptation/launching of innovation in other countries
Considerations for expansion

• **Engage stakeholders** in the implementation process and keep them informed

• **Build multi-disciplinary partnerships** with businesses, government, NGOs & mobile service providers to *leverage resources* and *ensure sustainability*

• **Market** service to raise awareness among potential users

• **Monitor & evaluate:**
  • Collect data about usability & continuation
  • Evaluate process and impact
  • Make mid-course corrections

• **Share information** about the project with others engaged in the use of mHealth, incorporate feedback (i.e. mHealth Working Group)
Conclusions

• Preliminary research suggests that there is a demand for this service
• CycleTel could help expand access to family planning and reduce unmet need
• Proof-of-concept testing, pilot-testing, and skillful management of implementation process are important
• Future considerations include using CycleTel platform to transmit other health messages (HIV prevention, etc) to core application