



EXPANDING FAMILY PLANNING OPTIONS

# **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<sup>®</sup> (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

<b>3 Phases</b>	<b>Objectives</b>
<b>Focus Group Discussions</b>	<ul style="list-style-type: none"><li>• Understand phone use patterns</li><li>• Determine potential interest among target audience</li><li>• Explore appropriate messaging and preferences for the service</li></ul>
<b>Cognitive Interviews</b>	<ul style="list-style-type: none"><li>• Verify comprehension of messages</li><li>• Adapt and finalize messages</li></ul>
<b>Manual testing with ~30 couples</b>	<ul style="list-style-type: none"><li>• Enroll women for 2 cycles to assess feasibility, satisfaction and correct method use (using FrontlineSMS software)</li><li>• Troubleshoot problems and determine how to improve service</li></ul>



# 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 \o/

## 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