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This booklet provides the steps, processes and lessons learned in developing, implementing and evaluating an opt-in SMS-based health communication program called **mobile for reproductive health (m4RH).** While this program focuses on disseminating information about family planning (FP), the process and lessons learned are transferable to SMS-based programs within reproductive health or other areas of international public health and development. This booklet is intended for health programmers and researchers.

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Introduction

Beginning in 2008, FHI 360 developed m4RH with funds from U.S. Agency for International Development (USAID) through the PROGRESS (Program Research for Strengthening Services) project. The FHI 360 team conceptualized, developed and deployed m4RH as part of a research study aimed at determining the feasibility of providing FP information via text mes-

sage, the reach of this communication channel, and suggested impact on FP use.

From 2010-2011 PROGRESS piloted m4RH in Kenya and Tanzania. The assistance of many organizations involved in the development and pilot implementation of m4RH has been invaluable and we extend our sincerest thanks. Text to Change, an organization based in Uganda and the Netherlands, provided SMS support for the m4RH program. Sliced



©FHI 360 m4RH Usability Testing

Bread Design, a consulting firm based in California, assisted FHI 360 with the user interface and testing. The partners in Kenya included: Marie Stopes, Family Health Options of Kenya, PSI, and the Department of Reproductive Health of the Ministry of Public Health and Sanitation. The partners in Tanzania included: Marie Stopes, PSI, Pathfinder, FHI 360 ROADS Project, GIZ, ISHI project, CCBRT, and the Ministry of Health and Social Welfare.

What Is m4RH?



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- m4RH provides information on long and short acting family planning methods including: Implants, IUDs, permanent methods, injectables, oral contraceptive pills, emergency contraception, condoms, and natural methods.
- 2. m4RH messages include information about side effects, method effectiveness, duration of use, and ability to return to fertility.
- The content is based on results from previous research conducted by FHI 360, review of evidence around family planning uptake and continuation, and WHO and country-specific guidelines, adapted for delivery via mobile phone.
- 4. m4RH also provides a searchable clinic database.

Health Communication Process Overview

m4RH is based in best practices for health communication programs. The steps outlined in the graphic below were used to develop the m4RH program.



<u>Guidelines for effective health communication programs</u> <u>include four iterative steps:</u>

- 1. Planning and strategy development—use research to identify and understand the needs and perceptions of the target audience.
- 2. Developing and pretesting concepts, messages, and materials develop relevant, meaningful messages through pretesting with the target audience.
- 3. Implementing the program—track audience exposure and reaction to the program through process evaluation.
- 4. Assessing effectiveness and making refinements—assess how the program is affecting health outcomes and identify refinements to improve effectiveness of future program iterations.



Why Mobile Phones?

- World wide, there are 5.9 billion mobile phone subscriptions.
- 73% of mobile phone users live in developing countries.
- More than 90% of telephone subscriptions in Africa are with mobile providers.
- Worldwide, 200,000 text messages are sent every second.
- Text messaging (SMS) is ideal for health interventions:



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- It is available to all mobile phone users regard-• less of phone type.
- Mobile phones users typically carry them every-• where making maximum program reach likely.
- Text messages are less expensive than voice calls. •
- Text messages can be automated and efficiently delivered to many people.

Mobile phones provide a new means of reaching people with health information and support, especially in developing countries where access to health information, providers, and services is limited.

Formative Research

Focus groups and in-depth interviews were conducted with female and male family planning users in East and West Africa to test the concept of providing family planning information via text message on mobile phones. Participants stated that text messaging is common, they would share information with partners and friends, information on side effects is important, and they would welcome family planning information delivered on their mobile phones.



"I would like to learn about contraceptive methods and decide which method will be appropriate to me and my wife." - Male, Tanzania

Planning and

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"No one has ever done something like this before. It's always about sports, texting Bible, love, and ringer tones...but when it comes to this program it will encourage people because they know they can get new information...."

- Female, Ghana

How Were m4RH Messages Developed and Tested?

Initial family planning messages were systematically developed based on:

- WHO and country-specific family planning norms
- Review of evidence for family planning uptake and continuation
- Requirement of 160 character screens



Adapted messages were:

- Reviewed by global and in-country family planning experts, clinic partners, and MOH
- Translated and reviewed in English (Kenya) and Swahili (Tanzania)
- Tested in family planning clinics with female and male clients, who viewed the messages and provided feedback on language, comprehension, relevance, and trustworthiness

How Were m4RH Messages Developed and Tested?

Feedback from usability testing led to:

- Addition of screen providing menu of all methods
- Additional inter-system links (e.g. natural family planning to condoms)
- Deletion of HELP screen
- Formatting changes



Left top corner, left bottom corner ©FHI 360 usability testing Right top corner, right bottom corner ©2008 Josh Nesbit, Courtesy of Photoshare

How Does m4RH Work?

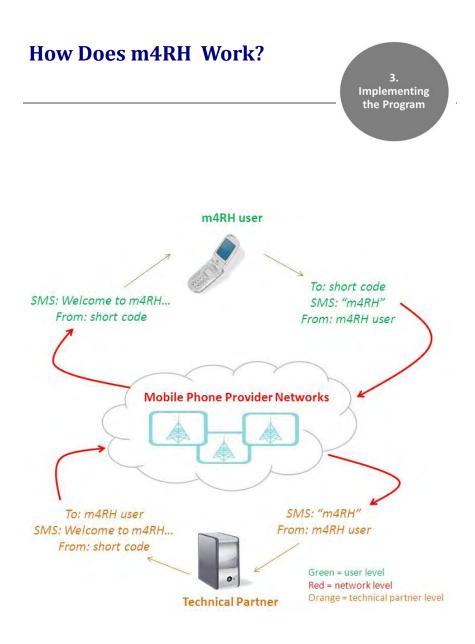
3. Implementing the Program

User interaction:

- Users access the m4RH program by sending a text message containing the keyword "m4RH" to a short code.
- After sending the initial SMS, the user receives a menu of choices for accessing contraceptive information and family planning clinic locations operated by partner organizations.
- To access these different options, the user replies with another SMS message to the service using a keyword or code from the menu provided.
- Interaction with the system follows a "ping-pong" approach, meaning that users only receive messages as they request them.

Technical platform:

- The technical partner provides the software and hardware (the technical platform) that facilitates the provision of the m4RH messages to the m4RH user.
- The technical partner also coordinates the process for obtaining an abbreviated phone number, called a short code, that is recognized across mobile network providers. In the case of m4RH, this short code is established as zero-rated, meaning that users may access the system free of charge.
- The technical partner programs the SMS system to link keywords submitted by m4RH users to the appropriate response message. The technical platform then automatically sends a response to the user through their respective mobile network provider.



3. Implementing the Program

How Are m4RH Users Linked to Services?

<u>m4RH includes a clinic locator database:</u>

- Participating partners provide name and location information for their health facilities.
- m4RH users are able to search for a local clinic by simply texting the first three letters of their province or district to the m4RH system as shown in the image to the right.
- After the user responds with the province or district code, the user receives an SMS listing all clinics in the queried location.



How Is m4RH Promoted?

3. Implementing the Program

As an opt-in system, use of m4RH is dependent on how much it is promoted. People have to know about it to use it.

m4RH is promoted:

- In clinics through posters, flyers, and palm cards
- Through outreach workers affiliated with clinics
- By community/peereducators (CHWs)
- Via mass media (radio and newspaper)



• As a part of other community activities like fashion shows, fairs, festivals, etc.

"We were interested because we also provide family planning services and we have a network of facilities, so we found that [m4RH] will be valuable to our project, since we also want to network and inform people where our services are." - Tanzania partner 4. Assessing Effectiveness and Refining

How Is m4RH Being Evaluated?



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Process evaluation:

- Tracking queries to the m4RH system in near real-time.
- Sending text messages with close-ended responses to m4RH users, to assess where they learned about m4RH, their age, and their sex.
- Conducting telephone interviews with m4RH users to obtain program feedback and understand how m4RH content is being used by specific audiences.

Outcome evaluation and assessment of effectiveness:

- Sending open-ended text messages to assess potential health impact.
- Conducting telephone interviews with m4RH users to assess how program use may affect family planning and use of health services.
- Testing research processes to inform the design of future evaluations of mobile phone health communication programs.

What Are The Lessons Learned?

4. Assessing Effectiveness and Refining

- m4RH messages complement other family planning information dissemination approaches (mass media, peer-to-peer, etc.).
- m4RH can reach a broader audience than traditional family planning services, including young people and men. Therefore programs can better meet the needs of specific target populations.
- The process used to develop FP messages can be replicated for new content (HIV, maternal/child health, tuberculosis).
- Managing an opt-in information service like m4RH involves liaising with the technical partner, and maintaining relationships with government ministries and promotional partners.

Sustainability of m4RH:

After incurring start-up costs, projects like m4RH need to plan for maintenance. In order to sustain a project such as m4RH, resources are required for ongoing leasing of the short code, offering free text messages and promoting the service to new users. In addition management costs need to cover such issues as updating content and coordinating with partners.

