



AFRICAN STRATEGIES FOR HEALTH



Photo: mHealth Compendium Volume 1

MHEALTH OPPORTUNITIES AND LESSONS LEARNED FOR FAMILY PLANNING PROGRAMMING

Over 225 million women in developing countries – 55 million in Sub-Saharan Africa – have an unmet need for family planning. Every year, the impact of this unmet need results in over 74 million unplanned pregnancies and 28 million unplanned births worldwide.¹ To ensure universal access to sexual and reproductive health services, a range of systems and service delivery interventions, identified as high impact practices (HIPs), help family planning programs focus their efforts and maximize resources to achieve broadest reach and greatest impact.² The growing ubiquity of mobile technology offers

numerous opportunities to support and augment the successful implementation of HIPs.

Mobile health (mHealth) is the provision of health services and information via mobile and wireless technologies. The rapid expansion, availability, and use of mobile phones across Africa have made mHealth applications an important tool for improving the health of Africans and addressing the unmet need for family planning.

The African Strategies for Health (ASH) project works in close collaboration with USAID, African governments, and partners to expand the body of knowledge and increase access to the most current information on mobile technology solutions for health. To assist program planning and implementation, ASH has compiled over 150 case studies of mHealth programs for which evaluation or results data are available, along with key tools and resources, in five volumes of the mHealth Compendium. The case studies offer insights into mHealth applications, and include a program description, results information, lessons learned as described by the implementing organization, as well as implementing partners and contact information.

This brief presents themes and lessons learned from across the five volumes of the mHealth Compendium from programs which addressed family planning. It is intended to provide policymakers and program implementers with a resource on potential areas for integration of mHealth into family planning programming, as well as emerging lessons from a range of example case studies.

ABOUT ASH

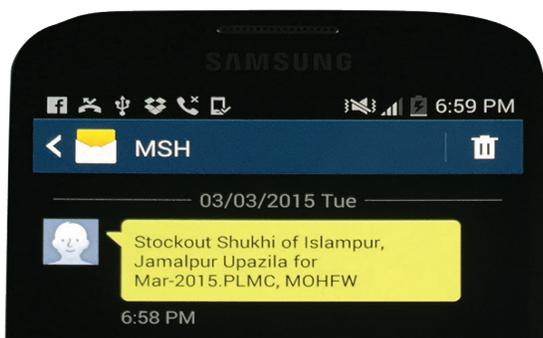
African Strategies for Health (ASH) improves the health status of populations across Africa through identifying and advocating for best practices, enhancing technical capacity, and engaging African regional institutions to address health issues in a sustainable manner. ASH provides information on trends and developments on the continent to USAID and other development partners to enhance decision-making regarding investments in health. ASH is a five-year project funded by the U.S. Agency for International Development's (USAID) Bureau for Africa and implemented by Management Sciences for Health.

Focus Areas of mHealth Applications in Family Planning

HIPs and strategies for scaling up comprehensive family planning can benefit from mHealth applications and programs. Within practices identified as contributing to creating an enabling environment for comprehensive family planning, mHealth programs have been applied in particular for strengthening supply chain management, enhancing health worker support and training, and improving health communication to enable informed health care decisions. Selected family planning case studies and example programs are described below.

Supply Chain Management

A critical challenge in the provision of family planning services is consistent access to commodities. An effective supply chain management system helps address the challenge of stock-outs by strengthening the link between facility-level information and national-level planning. Stock management and logistics have proven to be an important area for digital technology contributions to family planning and health care service provision. The examples below highlight ways in which mHealth applications have been utilized to address this challenge.



- eLMIS** In partnership with the Ministry of Health and Family Welfare in Bangladesh, the USAID-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS) program, implemented by Management Sciences for Health, developed an electronic Logistics Management Information System (eLMIS) that collects data on consumption and availability of family planning commodities from all districts and sub-districts in the country. SMS and email alerts are used to send data to users, pharmaceutical producers, and their supervisors on behalf of the Procurement and Logistics Management Cell of the Ministry of Health and Family Welfare. The system provides messages that include 1) reporting reminders, 2) tracking reports against set timelines, and 3) alerting of potential stock imbalance of family planning commodities.
- Informed Push Model** In Senegal, in an effort to address recurrent family planning product stock-outs at nearly 80 percent of public service delivery points, IntraHealth International is expanding the Informed Push Model (IPM) approach nationally in all 14 regions. In collaboration with Dimagi, a customized version of the CommTrack application is being used as the logistics management information system within the IPM approach. Under

this public-private partnership model, the logistics management burden is shifted from health workers to dedicated logistics professionals, allowing providers to focus on service delivery quality. The logistics professionals enter data on tablets at the moment of delivery of the commodities, and the program automatically calculates quantities based on previous consumption.

Health Care Worker Support and Training

Community health workers (CHWs) play an important role in family planning programming. The integration of trained, equipped, and supported CHWs within the health system has been identified as one of the proven HIPs in family planning service delivery.³ The widespread availability of mobile technology has greatly enhanced possibilities for connecting with and supporting front-line health workers. One of the most widely-used applications of mobile technology for health is to empower and enable CHWs to disseminate information and educate families on healthy behaviors, enforcing the link between the community and the health care system. mHealth applications include a wide-range of interaction possibilities including: push messaging through basic SMS, text-based quizzes, voice messaging, and connecting health care workers to peer and supervisory support systems. The examples below highlight ways in which mHealth applications have strengthened health care worker support and training.

- iDEA** In response to findings that provider biases were restricting the use of many family planning methods in several Nigerian cities, the Nigerian Urban Reproductive Health Initiative (NURHI) launched the Interactive Distance Education Application (iDEA). The system for midwives is adapted from the Digital Campus open source application OppiaMobile, and provides video scenarios featuring examples to help users recognize their biases and address them through suggested alternative counseling approaches (*example below*). An evaluation is planned to assess effects on quality care and provider knowledge.

- mHealth for Community-Based Family Planning Services** Pathfinder International and D-tree International are implementing a community-based family planning program using mobile technology with CHWs and CHW supervisors to improve the quality of care in Tanzania's Shinyanga region. CHWs use a mobile application to

The mHealth Compendium series document a range of mHealth applications implemented primarily in Africa.

157 Case Studies
in five Compendium volumes

44 With application and lessons for family planning programming

21 With in-depth focus on family planning programming implementation

The case studies with applications and lessons for family planning fall across five programmatic areas:



provide counseling through a well-defined protocol to educate women about all available family planning methods. The CHWs provide contraceptives at homes and referrals to facilities for clients interested in long-acting and permanent methods. The application includes reminders for CHWs to follow up with clients. The program includes incentives to improve CHW motivation and quality such as identifying champion health workers, a pay-for-performance system, and real-time performance tracking. An increase of over 500 percent in registrations and a 15-fold increase in the number of follow-up visits were reported by the program, when compared to the previous paper-based system.

Health Communication to Enable Informed Decision-Making

The implementation of systematic, evidence-based health communications strategies utilizing multiple channels has been identified as a HIP to enable people to make voluntary and informed health care decisions.⁴ Mobile technology has become an increasingly important channel through which to communicate and educate individuals. The examples below highlight ways in which mHealth applications have enabled health communications.

- **SMS and IVR to Improve FP Services** In Uganda, Text to Change partnered with the Program for Accessible Health Communication and Education (PACE) in the implementation of a flexible mobile phone platform to provide information on family planning methods, clinics which can provide these services, and follow-up reminders. In recognition of high illiteracy rates, an interactive voice response option helps to increase information dissemination.
- **Mobile 4 Reproductive Health** The Mobile 4 Reproductive Health (m4RH) program, implemented in Kenya and Tanzania, provided an opt-in SMS-based health communication program for women and men to access information about family planning methods and reproductive health. Users accessed evidence-based content on the type of method information they were interested in. Locations of local health facilities were

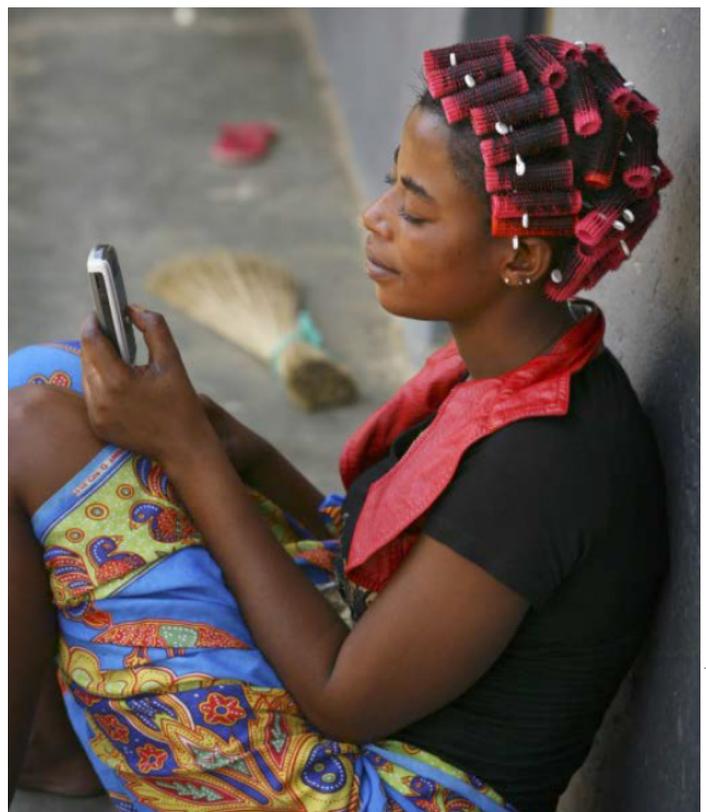


Photo: mHealth Compendium Volume 1

available by text through a search of their district. According to user reports, the platform increased knowledge and influenced behaviors around family planning among men and women.

Implementer Insights and Lessons Learned

The mHealth landscape is consistently and increasingly evolving. Although still limited, the amount of evidence around the effectiveness and efficacy of mhealth interventions is increasing. Understanding and documenting emerging lessons is a critical step for continued growth in this area. The mHealth Compendium case studies include key lessons learned as identified by the programs, summarized below. In some cases, programs noted positive side effects that were not necessarily



The mobile phone has become ubiquitous in Africa, making mHealth applications an important tool for impacting the health of Africans. When applied appropriately, mHealth can make important contributions to improved health outcomes through a range of intervention areas across the health system.

expected, and contribute additional benefits to the provision of health care services.

- **Understanding the local context**, bottlenecks, and resources is critical when designing an mHealth solution to integrate with the existing health system.
- Putting in place **an iterative approach to gather feedback** and monitor use of the tool allows for continued refinement of the intervention.
- **Integration of mHealth into family planning programming** can facilitate improvements in decentralized decision making through the use of data at the local level, transitioning from solely data production.
- **Public-private partnerships**, such as integrating logistics professionals to the commodity supply chain, can reduce time spent by health care providers on non-medical tasks, allowing for prioritization and focus on quality delivery of care.
- **Using offline applications** which can be updated when connected allows for increased usability in areas with limited connectivity and reduced network costs, but remains adaptable.
- **Regular communication with CHWs** as a venue for feedback and support is important for program monitoring and improvement.
- Opt-in SMS and call-in programs noted **high rates of interest from men** in accessing family planning resources and information.
- **Mobile phones are often shared**; a contextual factor which must be considered when developing mHealth programming.
- In an example of a positive secondary result, eLMIS noted that the program provided **“profound motivating effects”** in terms of recognition of excellence and transparency.

For Further Reference

A concerted effort by donors and implementing partners has enabled the capture of important lessons learned by the development community in the implementation of information and communications technology for development projects. A number of key resources are available, including mHealth: Mobile technology to strengthen family planning programs,⁵ a brief in the Family Planning HIP series. Additional detail on over 150 mHealth program case studies – including those discussed in this brief – can be found on the ASH project website at www.africanstrategies4health.org/resources/mhealth. The mHealth Compendium series includes references to additional resources and best practices in digital health programming and is also available in French and Portuguese. ■

This summary brief was prepared by Sherri Haas, JoAnn Paradis, and Alison Corbacio (ASH) with inputs from Ishrat Husain (USAID/AFR).

ENDNOTES

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