PATHFINDER

Can Women in Kaduna State Access Digital Health Solutions?

Lessons from a Rapid Assessment

Context

The total fertility rate in Nigeria's Kaduna State is among the highest in the world at 5.9 children per women. Only 14% of married women ages 15 to 49 are using modern contraception, and 12% have an unmet need for modern contraception.[1] Among pregnant women in Kaduna State, 69% of antenatal care (ANC) visits are from a skilled provider, and 18% of deliveries occur in health facilities. Less than one in four women and newborns receive a postnatal check within two days of birth.[2]

Between 2015 and 2019, the Saving Mothers, Giving Life (SMGL) Initiative, funded by USAID and MSD for Mothers, was implemented by Pathfinder International in close partnership with the Cross River State government in Nigeria. Through SMGL, Pathfinder adapted a model that formed clusters of public and private health facilities to address the three delays in accessing lifesaving care [(1) deciding to seek appropriate medical help for an obstetric emergency; (2) reaching an appropriate obstetric facility; and (3) receiving adequate care when a facility is reached] and ensure that pregnant women and their newborns had access to quality, accessible, acceptable care.[3] Comparative baseline-endline assessments revealed a 66% reduction in the facility maternal mortality ratio per 100,000 live births and a 47% reduction in the facility perinatal mortality ratio per 1,000 live births.

Photo credit: Mark Tuschman, 2010, Kaduna, Nigeria

SAVING MOTHERS, GIVING LIFE 2.0

Learning from SMGL 1.0 implementation success in Cross River State, Pathfinder's SMGL 2.0 in Kaduna State is scaling up successful interventions from the program. SMGL 2.0 is working to improve access to maternal and newborn health (MNH) services and strengthening collaboration and partnership between the Nigeria's Kaduna State Ministry of Health and the private health sector. The project takes a three-pronged total market approach by (1) engaging and strengthening private facilities; (2) refining and adapting a comprehensive quality-improvement model; and (3) working with communities, especially traditional birth attendants and other norm holders, to improve health-seeking behaviors and increase facility deliveries. SMGL 2.0 is implementing a package of interventions to generate demand for services, increase accessibility of the supported health care facilities, and improve the quality of facility-level MNH care provision.

> **A total market approach is when public and private players coordinate to jointly meet the health care needs of a population and leverage the strengths of each player to maximize the reach and quality of services.[4]**

AWARENESS CREATION, DEMAND GENERATION, AND SOCIAL ACCOUNTABILITY WITH NIVI

The Nigeria National Health Information and Communications Technology Strategic Framework shares the vision of the Government of Nigeria for scaling up mobile messaging and cash transfers to generate demand for health services. To increase demand for quality MNH services in Kaduna State, SMGL 2.0 is collaborating with innovative digital platform Nivi to optimize digital outreach, referrals, and client follow-up. Nivi provides push and on-demand access to trusted and actionable health information that enables individuals to make informed, supported decisions about their health. At its inception, SMGL 2.0 planned to deploy the interactive chat service askNivi, available through WhatsApp, to provide relevant pregnancy related information, including family planning information and COVID-19 prevention and treatment information, to pregnant women and women of reproductive age. askNivi will create awareness of available MNH services including ANC, delivery, and postnatal care; generate demand by encouraging health-seeking behavior; and facilitate social accountability by soliciting insights and feedback from clients to improve the quality of MNH services provided. Clients enroll in askNivi as they exit their health facility. Nivi also directs social media ads encouraging facility visits and enrollment at people in the same demographic as the facility-based clients. Those who express intent to seek MNH services are referred to a nearby affiliated facility. A successful rollout requires that the askNivi content and delivery channels be tailored to the Kaduna context and local user preferences.

This brief shares learnings from a rapid assessment SMGL 2.0 conducted to inform the deployment of askNivi digital health solutions to provide relevant information on MNH to 30,000 women in the communities or wards where project-supported health facilities are located.

RAPID ASSESSMENT OF WOMEN'S ACCESS TO SMARTPHONES

Rationale

Photo credit: Jerry Gwamna, Pathfinder International. Dr. Emmanuel U. Ozumba delivers remarks during a stakeholders' content review meeting for the AskNivi platform.

For the askNivi solution to work, the message content and the delivery channel must effectively reach the users, whose willingness to enroll is critical to the success of the approach. During an askNivi content review meeting, however, stakeholders expressed concern that the project's plan to rely on smartphones to deliver English messages via WhatsApp would disenfranchise many MNH clients, especially those in rural areas who are indigent, speak Hausa, and do not own a smartphone. In response to these concerns, the project team sought a better understanding of the needs and demographic and socioeconomic characteristics of ANC clients accessing private health facilities in Kaduna State.

> " **My private facility is in the rural area of Kaduna state. Most of the patients we see cannot pay for basic services at a go. I then wonder how this concept will succeed, how many women have a basic phone, how many have smartphones, how many know how to use Facebook or WhatsApp, and finally how many women can afford to purchase data.** "
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> *-Dr. Emmanuel U. Ozumba, MD, New Era Hospital*

Methodology

In March 2021, Pathfinder adopted a responsive feedback mechanism[6], conducting a rapid assessment of ownership and accessibility of smartphones, language preferences, and access to digital health messaging platforms. The team interviewed 307 women who had received maternity services in 25 selected private, for-profit postnatal clinics. Over four days, seven data collectors and two supervisors deployed the questionnaire using the electronic data collection platform KoBoCollect. The resulting information has helped the project understand whether the proposed approach is the most effective pathway to reach and engage clients.

Findings

Of the 307 women assessed, 192 (63%) owned smartphones, 93 (30%) had basic phones, and the remaining 22 (7%) did not have a phone at all. While nearly all urban respondents had either a basic or smartphone, one-fifth of rural respondents had no phone (Figure 1). Almost half (45%) of respondents reported experiencing challenges charging their phones related to limited access to electricity. Additional reasons women gave for not using smartphones or social media platforms were economic (poverty, lack of jobs and money, prohibitive cost of smartphones and data), socio-cultural (spousal prohibition, poor internet access, limited electricity with which to charge phones, lack of interest), and educational (low literacy, inability to operate a smartphone).

Figure 1: Smartphone Ownership by Location
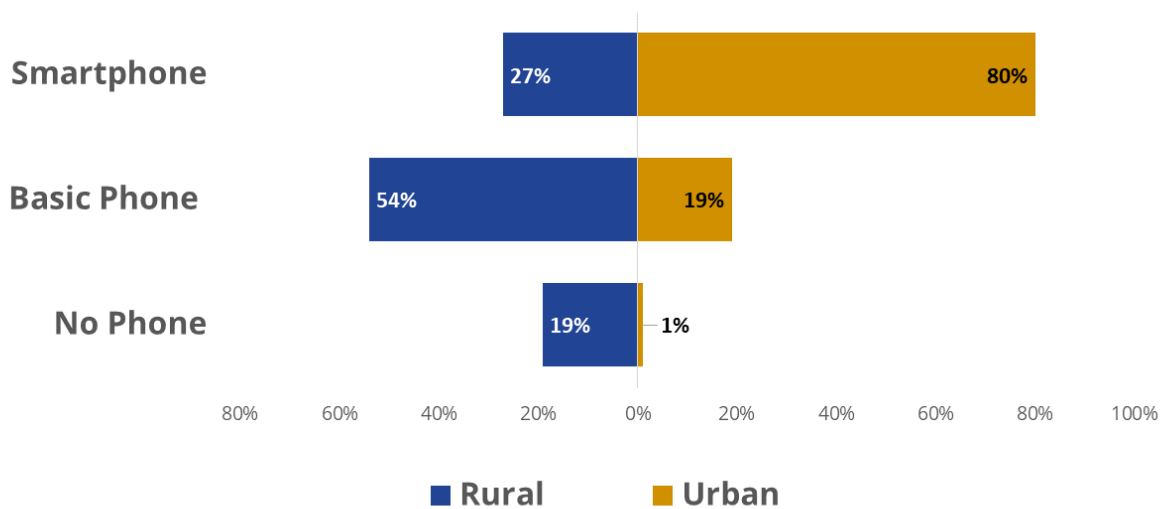
Promisingly, 99% of respondents were willing to receive health messages. Though 59% of assessed clients used WhatsApp, only 34% preferred WhatsApp as a messaging platform. The majority —62%— preferred to recieve health messgaes via SMS. The remaining 4% preferred to receive health messages via Facebook, email, or not at all (Figure 2). While 60% of the respondents preferred to receive health messages in English, 39% preferred Hausa.

Figure 2: Preferred Medium for Health Messages
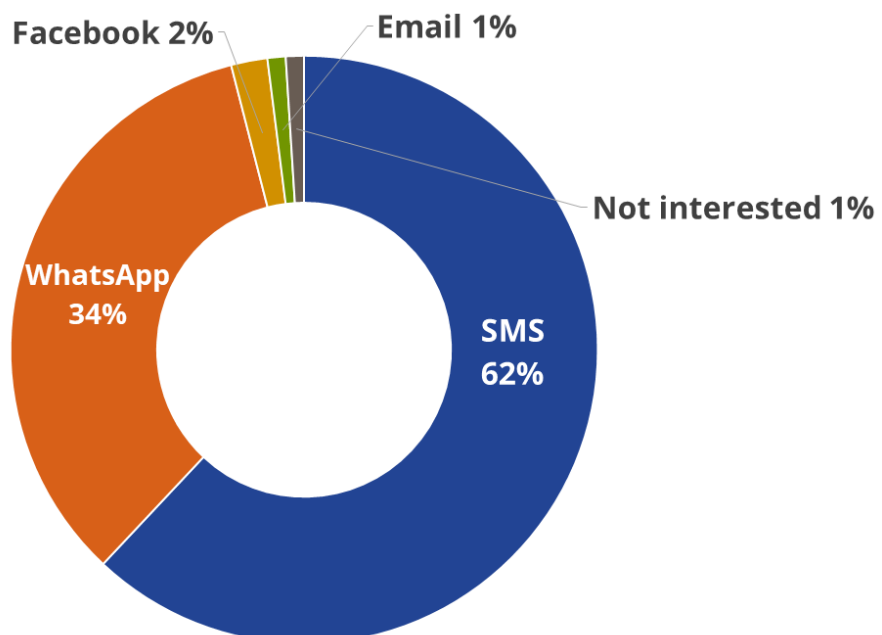
DISCUSSION

The digital health solution planned by SMGL 2.0 was originally conceptualized under the assumption that disseminating English messages via WhatsApp would be effective in creating awareness and generating demand for services among pregnant women and women of reproductive age. Nigeria encompasses many tribes and ethnic groups, but three major languages are commonly spoken: Hausa, Yoruba, and Igbo. It is therefore not surprising that more than one-third of surveyed women preferred Hausa, commonly spoken in the northern part of the country where the project is implemented, for regular communication.

Further, the assessment showed that use of SMS, in addition to WhatsApp, will be critical in supporting offline access to information, especially for women who have exhausted their data, who have limited funds with which to purchase and use data, and who have little or no internet connectivity. **The findings illuminate the need for a dual-medium and dual-language approach, using SMS and WhatsApp to effectively reach and engage clients with health messages in both English and Hausa.** Nivi is planning to translate digital message content to Hausa. Nivi is also exploring the possibility of sending messages via SMS in addition to WhatsApp, but setting up an SMS line would necessitate a budget and require Nivi to register in Nigeria. These modifications are likely to improve enrollment, which has initially been low.

The rapid assessment helped the SMGL 2.0 team to understand the digital environment for women in the project area, and it has opened opportunities for discussion with Nivi on the possibility of dual-language messaging and SMS messaging. Informed by this learning process, the project's approach to digital demand generation is still taking shape, informed by the following lessons:

- **Projects must be nimble enough to listen and respond to stakeholder questions and concerns and resilient enough to adapt to changing priorities.** The rapid assessment of women's smartphone access was not included in the original workplan. However, after hearing stakeholder questions and concerns about digital access, literacy, and preferences, the team realized the importance of conducting a baseline assessment to ensure they understood how best to reach their intended audience. The results of the assessment will inform collaborative project design, implementation, and learning by Pathfinder and Nivi, including translation of program content into Hausa and the possibility of delivering it via SMS.

- **Testing a project's assumptions can protect its design and implementation from being steered by misconceptions.** The rapid assessment helped provide the project with a more accurate sense of the feasibility of digital interventions in Kaduna State. On one hand, the assessment proved widespread stakeholder assumptions that only a small percentage of women in Kaduna State had access to smartphones wrong; in fact, 59% of the women assessed had access to smartphones. On the other hand, even among women with smartphones, almost none use Facebook, and while nearly two-thirds of respondents used WhatsApp, only one-third named WhatsApp as their preferred messaging platform. SMGL 2.0 was originally excited to partner with Nivi given the two-way interactive nature of the platform. Delivery of askNivi messages via WhatsApp enables women to respond with questions and feedback. While SMS is potentially less interactive given the per-message cost and therefore was not originally considered as a delivery channel, it is more accessible than WhatsApp to many of the women whom the project hopes to reach.

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