# Demand Generation Adapting the Demand Generation Implementation Kit for Underutilized, Life Saving Commodities: HC3 Case Study Series

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# Development of an Android Mobile Application for Adolescents and Youth on Sexual and Reproductive Health in Nepal

Nepal is at the cross roads of a social transformation. Previously held social norms of being sexually active only after marriage is not adhered to by young people. Adolescents and youth are by nature curious about sexual issues and today it is easier than ever before to access sexual content from electronic media and the internet, including social media. However, young people may not have many opportunities to receive correct and credible answers to their questions regarding sexual and reproductive health practices. Moreover, given the socio-cultural context of Nepalese society, youth are discouraged from openly talking about or asking questions about the problems they face as adolescents. To ensure these youth are able to access credible and correct information in order to make healthy decisions, Public Health Concern Trust-NEPAL (phect-NEPAL) decided to build upon the growing trend of young people receiving information more independently through smart phones and other devices, with a greater trust in social media and other digital media channels. The program strategy was to **develop an Android**<sup>™</sup> based mobile application (app) that would inform youth about reproductive and sexual health.

Today in Nepal, about 80 percent of 15-to-24-year-old youth in urban areas own mobile phones, as do about 60 percent of those in rural areas. Among this age group, mobile devices are increasingly becoming the dominant source for information sharing. Therefore, phect-NEPAL felt an electronic tool such as an interactive mobile phone app could be an appropriate medium to leverage adolescents' technological adeptness and inform them on sensitive sexual and reproductive health (SRH) issues. The program wanted to build awareness among adolescents and youth by providing the content in a medium they were comfortable with and enjoyed using. With this app, the correct information on SRH issues would be at their fingertips, available anytime and anywhere. phect-NEPAL believed this kind of access to SRH information would help facilitate their behavior modification. Hence, the program developed an interactive mobile app for adolescents and youth regarding SRH.



A focus group discussion with Nepali youth. © 2016 phect-NEPAL.

The app – named Mero Lagi, or "For Me" in Nepali – is attractive, attention-grabbing and includes clear and correct SRH information adolescents can easily understand, learn from and relate to. By including common Nepali myths and incorporating testimonials from Nepali youth, this tool was developed to be culturally suitable and relevant to today's Nepalese adolescents. The app's information mainly focuses on the:

- reproductive health information, including an overview of the reproductive system and puberty;
- social aspects of sexual health including healthy relationships, positive body image and gender;
- sexual health, including sexually transmitted infections (STIs), consequences of unplanned and unwanted pregnancy and contraceptives; and
- resources such as information on health/help centers and their locations.

phect-NEPAL anticipates Mero Lagi will serve as a onestop SRH resource for youth in Nepal. It is available in both Nepali and English, and will be available for free download from the Google Play<sup>™</sup> store.

In developing the Mero Lagi app, phect-Nepal followed the steps recommended in the *Demand Generation Implementation Kit (I-Kit) for Underutilized, Life-Saving Commodities*, which was developed by the Health Communication Capacity Collaborative (HC3) with support from the United States Agency for International Development (USAID) and the United Nations Children's Fund (UNICEF). The initial formative research included a literature review and focus group discussions with young people on topics related to SRH. The app was designed, tested and revised according to the suggestions received from the intended audience in the 15- to 24-year-old age group. Mero Lagi is intended to act as a complementary source of information to the ongoing formal education in the schools and informal conversations that may take place at home. The app will help generate increased knowledge and awareness among youth on SRH issues and help influence their behavior related to safe sex and consent.

Among the life-saving commodities presented in the I-Kit, Mero Lagi promotes three specific underutilized commodities:

- Female condoms
- Emergency contraceptive pills
- Contraceptive implants

# Key Steps to Developing the Mero Lagi Application

phect-Nepal conducted a **literature review** on various mobile health (mHealth) intervention projects (including those focused on social and behavior change communication) around the world, as well as **focus group discussions** (FGDs) with young people. A prototype of the app was subsequently developed and pretested with the intended audience. Modifications were made based on the pretest findings, and the finalized app was widely promoted and disseminated through a variety of media channels.

## **Literature Review Findings**

The review of different mHealth-related studies focusing on mobile phones and their influence on adolescent and youth SRH found that the use of smart phones



A group of pretest participants using the app. © 2016 phect-NEPAL.



A group of pretest participants using the app. © 2016 phec-NEPAL.

and mobile apps is on the rise both worldwide and in Nepal, but intervention studies related to mobile apps are still very limited. Most of the published literature on mHealth focused only on short messaging service (SMS) interventions, which suggested positive SRH-related behavior change.

# **FGD Findings**

phect-Nepal conducted six FGDs with eight to 10 participants between the ages of 18 and 22. These discussions included the following themes:

- 1. Use of Smart Phones and Apps: All of the participants hailed from urban and semi-urban areas and used or owned a smart phone. They said most of their peers use similar devices, irrespective of socioeconomic status, due to the availability of cheaper Android smart phones in Nepal. Everyone mentioned they downloaded apps largely based on recommendations from friends and app reviews posted online.
- 2. SRH Knowledge: Knowledge about SRH was not uniform among FGD participants. Those who received practical instruction in school had a better understanding of SRH than those who received only theoretical information at home or from other sources. Almost all FGD participants had some level of knowledge about sex, puberty, menstruation, contraceptives and STIs. However, their knowledge remained inadequate in terms of sexuality and the functions and availability of different contraceptives.
- 3. Suggestions for Developing an SRH App: All the participants said they were not aware of mobile apps that addressed their questions related to SRH. Everyone agreed that this app would be very promising and popular among youth because it would be developed for and by Nepalese youth. All of the participants said they wanted the contents to be informative and personalized.



The Mero Lagi app menu in two languages, English and Nepalese. © 2016 phect-NEPAL.

A detailed report of key findings from the literature review and the FGDs was submitted to HC3.

## **App Development**

Based on the findings of the formative research, phect-NEPAL developed the wireframe and contents of the app. The content was structured under eight main headings, which appear as icons on the menu page. The contents in each section is linked to related items in other sections. Each page also has a search bar where users can type in their queries with key words, which can lead them to the pages and answers they are looking for.

A detailed report containing the concept note of the content and the wireframe was submitted to HC3. The app contents were reviewed and refined by clinical, public health and legal experts. The final content was then prepared in both English and Nepali languages.

phect-NEPAL hired professional app developers to engineer the prototype. The developers worked in close coordination with program staff as they created the app graphics, icons and overall design.

#### **Pretesting Findings**

Once the prototype was complete, it was tested with a group of youth between the ages of 17 and 21. After one week, the youth met to share their feedback on the app.

The participants liked the app name, contents, design and user interface. They also said they would

recommend the app to their friends. One major piece of feedback was related to the app's lack of interactivity; the group had expected the app to be more interactive and have regular notifications and updates. The youth hoped the app would be a platform for posing questions and to post their own stories/blogs - similar to other social media. Almost all of the pretest participants suggested the app be made interactive and allow users to address their questions directly to experts. Some also suggested the app have a chat board where users could interact with one another in the presence of a moderator. The youth also expressed a desire for additional guiz questions and offline access to more questions. They suggested inviting a celebrity or youth icon to help promote the app. All feedback was noted and taken into consideration.



A group of pretest participants. © 2016 phect-NEPAL.

Based on the feedback received during pretesting, a new interactive section was added to the app. In this section, users can ask questions, read answers to the questions asked by other users and save specific questions and answers to their phone for future reference. However, the questions asked by users are first filtered by an administrator (managed by phect-Nepal) and only selected questions and answers are posted on the application to ensure quality within the app. A new section was added where users can play a game called "Myth or Not?" In this section, users are presented with a statement and asked to answer if it is a myth or not. This adds to the "fun" factor of the app.

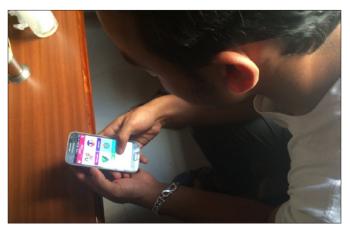
# Feedback from Users

The app is now available to download from the Google Play store for free. phect-NEPAL continues to collect feedback from app users. A male user, age 19, said, "The app looks very appealing, visually. I was initially attracted by the design. The contents are well managed and easy to search." A female user, age 22, said, "I liked the details given on the reproductive system. It is very easy to understand as I can directly click on the picture."

Almost all the users said that they liked the layout of the app. A male user, age 24, said, "I like that the app is available in both English and Nepali Language. I teach at a government school and I know that my students will find it easier to read the information in Nepali Language." A female user, age 20, commented, "The most important part is the section where I can ask experts questions. I think this will really make the app personal and not just a collection of information." Another female user, age 17, said, "The information on contraceptives and STIs is very helpful and informative. I also like that I can read the experiences shared by other users who have undergone similar situations. That way I feel that I am not the only one going through such a situation."

## **Next Steps**

The Demand Generation I-Kit was very useful to phect-NEPAL as it developed this project, providing a roadmap of specific steps for the strategy development process and work plan. The Mero Lagi app is a first step in the development of interactive mobile application for Nepali youth pertaining to SRH. The interaction of users and experts will lead to the increased use and effectiveness of the app among Nepali youth, and ultimately improve



A pretest participant using the Mero Lagi or "For Me" application. © 2016 phect-NEPAL.

the SRH health of this new generation. The next step is to secure additional funding to further increase the interactivity of the app, and continue to update the app to meet the needs of its users.

### Resources

- Every Woman, Every Child
- Demand Generation I-Kit for Underutilized, Life Saving Commodities

## Contacts

# phect-NEPAL

Anuroop Manandhar, Research and Development Officer <u>anuroop.manandhar@gmail.com</u>

Rolina Dhital, Research Assistant rolina.dhital@gmail.com

**HC3 Program** Johns Hopkins Center for Communication Programs

Sanjanthi Velu, Team Lead <u>svelu1@jhu.edu</u>

Lindsey Leslie, Program Officer <u>lindseyleslie@jhu.edu</u>





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