

fast facts

Project: Developing mobile based application to support pregnant women in the Mountains of Nepal

Lead Organization: Yagiten Pvt. Ltd

Country: Nepal

Budget: 30,000.00 AUD



situation

Due to Nepal's rugged topography, the majority of its population only has access to very basic healthcare facilities and in some cases none at all. This creates a number of problems for pregnant women, infants and lactating mothers as they are in the most vulnerable positions in terms of health. Both private institutions and the Nepali government have worked to improve the conditions for rural pregnant women and have succeeded in reducing the maternal mortality rate down from 850 per 100,000 live births in 1990 to 170 in 2010. However, in addition to the problems presented by the poor infrastructure, traditional social structures, behavior and education have historically failed to address the issues of Sexual and Reproductive Health (SRH). In Nepal, discussing or sharing ideas about SRH is a taboo, even with other women or health professionals.

solution

According to the 2011 census, around 82% of Nepal's population live in rural areas where there is insufficient infrastructure for transportation, communication, health services and education. Given the fact that Sexual and Reproductive Health (SRH) services are hard to access as well as socially unacceptable to discuss, this project aims to increase the reach of SRH information to rural pregnant women. The tenets of this projects are "connect, inform and monitor" – to this end, the project will develop an Android-based mobile phone application which will connect rural pregnant women with nearest Health Posts through Female Community Health Volunteers (FCHVs), then on to urban-based hospital doctors for further analysis and referral. The project is an extension of "amakomaya.com," a larger maternal health program in Nepal, and a partner in this effort.

The members of the Amakomaya project will design and deploy an Android-based mobile application to be used by the rural pregnant women of Nepal. The application will provide localized information relating to the prenatal, natal and postnatal periods of pregnancy. This information will enable women to learn about the changes their body will undergo and how the baby will develop. Automatic reminders will be delivered through the Android application so that women know when to get vaccinations and where to get nutritional supplements. FCHVs will be responsible for deploying the application in rural communities, as well as providing help using the application and proving referral information to regional health posts when necessary. The application intends to close both the information and geographical gaps that rural women face during their pregnancy. The application will enable rural pregnant women to send their queries in audio form to urban hospital doctors and to health posts, although this functionality requires internet connectivity. When required, doctors can be available for video conferences to determine if a woman needs to be seen in a larger clinic. The application will allow women to also register their baby's due date to get customized gestation information, as well as allow health professionals to deliver general health information. One of the main goals of this project is to reduce the communication barriers between patient and professional, and create a new paradigm of openness and effective communication.

Though the internet connectivity is increasing in rural Nepal, and many health posts have internet access the bandwidth remains very low. Due to these restrictions, the application will make extensive use of content pre-loaded and shared via memory cards. Thousands of women and FCHVs have followed this model to distribute content from the Amakomaya site. Synchronization on the user end will enable the application to access the most relevant and timely content. The majority of the content will be produced as short video and audio segments so to be accessible to low-literacy populations, as well as shared and discussed amongst women and families.

The specific objectives of the maternal health application intend to:

- *Increase knowledge levels of rural pregnant women regarding prenatal, natal and postnatal health*
- *To empower FCHVs to use localized mobile applications as a supplement to their duties and to work with patients to access content, answer questions, and connect with experts*
- *To encourage male members in the family for active participation during pre-pregnancy, pregnancy and post-pregnancy period, thus reducing the taboo nature of SRH and supporting gender equity conversations, such as the burden of women's work while pregnant*
- *Increase the use of a wide variety of related programs and facilities, such as health post offerings (vaccinations, mineral supplements), birthing centers, and related services*

Our experiences with the Amakomaya project and our initial fieldwork have demonstrated that rural women have benefitted from health content and have made behavioral changes regarding their pregnancy and overall health. Qualitative and quantitative research has shown that the information provided is considered very useful and is followed by pregnant women and their families. Working with the best hospitals and community health organizations in Nepal, this project aims to initiate wide-scale change that results in a higher level of maternal and child health. This larger consortium is also dedicated to outcome mapping, in order to identify and monitor behavioral change in targeted populations.

broader impact

In addition to bringing critical services to rural women, this project has broader impact in both the medical and development fields. Doctors will be able to study unique cases from rural areas and produce better treatment protocols. Public health officials may benefit from health trends reported as part of this project, and can develop more effective public health programs. Finally, those working in humanitarian technologies can mine user data to learn how to more effectively create software that fits the lives of rural Nepali communities, and develop more appropriate and sustainable applications across all sectors.

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Women viewing a health video

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