

Mobile Reminder System for Cambodian Diabetics MoPoTsyo Patient Information Center



A health reminder system based on regular and targeted voice messaging

About MoPoTsyo

MoPoTsyo is a Cambodian health organization established in 2004 whose mission is to improve access to reliable information for Cambodian diabetics and those with high blood pressure. Through its network of 148 patient information centers and equal number of trained peer educators, MoPoTsyo helps diagnose and inform those affected and at risk in Cambodia's rural and slum communities.

The Problem

Diabetes is one of Cambodia's worse silent killers, killing approximately 8,000 people yearly. According to the International Diabetes Federation, 221,400 people live with diabetes in Cambodia with an additional 139,600 estimated undiagnosed. Although this represents a significant portion of Cambodia's 15 million inhabitants, access to reliable information on the disease is limited. Lacking reliable information, most at risk individuals fail to adapt their diet and lifestyle and to seek and adequately adhere to treatment.

The Challenge

MoPoTsyo has been working through a network of peer educators to help diagnose and inform those affected and at risk of diabetes. Whilst the approach has proved highly successful, the cost of travel and lack of funding limit the frequency of personal contacts between patients and peer educators. In order to provide more regular information and complement the existing work of the peer educators, MoPoTsyo has been experimenting with mobile technology. As part of a comparative research on health messaging effectiveness, MoPoTsyo, in collaboration with the Institute of Tropical Medicine Antwerp, piloted a SMS-powered reminder system with 480 patients. Issues of literacy and Khmer font compatibility as well as reports of patients not knowing how to access their inbox, however, forced MoPoTsyo to rethink its approach for the Cambodian context.

Technical Profile

- Design Elements**
 - Health reminders
- Call Direction**
 - Outgoing calls
- Verboice Features**
 - Call flow designer
 - Play pre-recorded voice message

The Solution

As an alternative to SMS, MoPoTsyo turned to InSTEDD's Verboice, a tool enabling it to record and send automated voice messages to patients. Because patients are contacted over the voice function of their phone, levels of technical or reading literacy were no longer an issue.

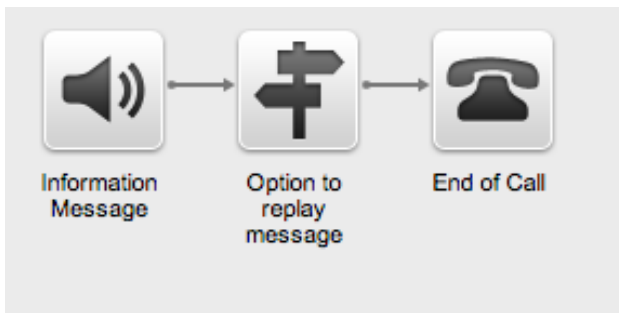
The possibility to organize patients into subgroups based on their conditions was an additional benefit to MoPoTsyo who was able to target messages to specific patient subgroups. Likewise, the possibility to send out messages in advance using the scheduling option was welcomed by MoPoTsyo as it enabled the team to record and send several days' worth of messages at once, thus saving valuable staff time.

For more on MoPoTsyo's work in Cambodia, please visit www.mopotsyo.org



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With recorded voice messages, the patients only need to answer their phone and they can hear the messages. With SMS they had to go to the inbox; often the letters were too small for them to read and they had to ask someone else to read the message for them; and sometimes

their phone just wouldn't support Khmer fonts so it wasn't possible for them to access the messages at all.

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Hen Heang - Monitoring Officer, MoPoTsyo Patient Information Center

The Design

As part of its mobile reminder initiative, MoPoTsyo sends out one automated voice message every day from Monday to Saturday. The messages are drawn from MoPoTsyo database of over 200 diabetes-related messages and sent out as follow:

Monday and Saturdays: Messages that are applicable to all patients are sent out.

Tuesday to Friday: Specific messages are sent out to the members of the relevant sub-group (i.e. high blood sugar, high blood pressure, complication, lack of compliance with prescriptions).

Each of the registered patients receive an average of 3 messages a week. Each message lasts 15-20 seconds. After having listened to the message, the patients have the option to replay the message or deregister from the service altogether.

Should the initial call fail, the software is programmed to call back within one hour of the original call.

Next Steps

MoPoTsyo's Verboice-powered reminder system is still in its early stage.

The organization is now looking at evaluating its effectiveness with a final evaluation planned for November/December 2014.

Building on this evaluation, MoPoTsyo will be looking at opening up the service to a greater number of its diabetes patients.

For more info on the 3 country research study that this project is a part of, please visit:

www.idf.org/bridges/supported-projects/long-term/LT10-341

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Verboice is a free and open-source platform that enables non-programmers to design and run a variety of interactive and automated voice-based applications (hotlines, alerts, reminders, quizzes, surveys, ...). Everything is done through a drag and drop interface which lets users combine Verboice's several features into a multitude of different applications.

Open source; easy to use; highly customizable and scalable

For more information, please visit www.verboice.com