



Community health workers in Uganda receive mobile phones to improve their motivation and performance

inSCALE Technology Innovation

THE CHALLENGE

Community health workers (CHWs) are playing an important role in reducing the number of children getting sick and dying from treatable and preventable diseases in Mozambique and Uganda. In order to achieve this reduction, CHWs need to be properly trained, supported and motivated.

CHW performance and motivation are influenced by appreciation of the CHW role and responsibilities by their communities. Of key importance is being able to conduct their job as CHWs to a high standard and also their relationship with their supervisors.

Mobile health (mHealth) approaches to improve motivation and performance of CHWs in Mozambique and Uganda

"Being in contact with my supervisor on a regular basis is very exciting"

Julius Barakuraha, community health worker, Mid Western Region, Uganda

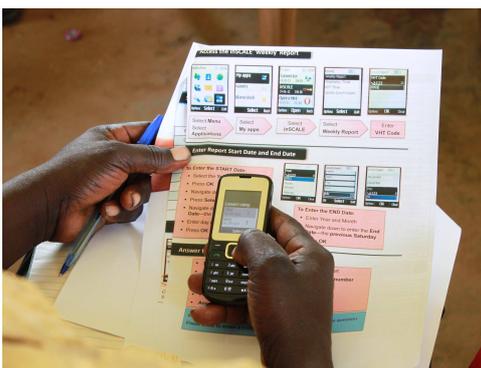
Meeting the challenge - inSCALE

The inSCALE project, supported by the Bill & Melinda Gates Foundation, is working to increase coverage of integrated community case management (ICCM) and the number of community health workers (CHWs) trained to treat children under five years for diarrhoea, pneumonia and malaria.

The goal of the project is to develop innovations based on research which will have a positive impact on community health worker motivation, performance and retention in order to increase the quality and coverage of ICCM in Mozambique and Uganda. This will eventually lead to an increase in the number of children receiving the right treatment in their communities or being referred to health facilities.

As a first step in identifying the innovations, findings from a large piece of formative research, literature reviews, stakeholder analyses and other research activities were used to outline possible technology-based innovations, varying in each country based on the local context. Potential components of these innovations were subsequently identified and consultations with key stakeholders were conducted to provide information on the feasibility and acceptability of these.

Based on the formative research, the technology innovation has taken the form of the inSCALE mobile CHW support system (mHealth) in Malaria Consortium ICCM implementation provinces and districts in Mozambique and Uganda.



Training to use the mobile phone support system

Innovation: mobile phone support system

In both countries CHWs are given phones which contain innovative tools such as respiratory timers to support their work in pneumonia diagnosis. CHWs and their supervisors have access to a closed user group on their phones to increase communication and support.

In Mozambique, CHWs are provided with smart phones programmed with a tool for decision support, immediate feedback and multimedia, audio and images to improve adherence to protocols. The tool also allows CHWs to send key indicators to a server and to keep a register of patients who can be tracked over time. The indicators submitted can be used to monitor the performance of CHWs by providing automated, timely, digestible reports with targeted follow-up actions for CHW supervisors.

In Uganda, CHWs are given a Java enabled mobile phone through which they can send their weekly reports on patients seen and drug stock levels. They can receive immediate performance related feedback based on data submission and monthly motivational messages to reinforce topics that need reminders or as refresher training. These messages are designed to impact positively on CHW performance and motivation.

Automated messages will be sent to

supervisors flagging any problems and strengths identified in the data submitted by the CHWs using the provided phones, and alerting supervisors as to which individuals require targeted supervision.

Finally, CHWs are also provided with solar lamps and chargers which they can use for treating sick children in the evenings, as well as a method of revenue collection for charging phones in their villages.

Why mobile phones?

Through the use of mobile phones and custom made applications, community health workers are expected to feel an improved sense of connectedness to health system and to their CHW peers. The closed user groups are key to achieving this. As a result of the increased support and performance based feedback they will be receiving, it is hoped that CHWs will feel an improved sense of status and a greater appreciation for the work they do from their community.

The closed user groups are also expected to address some of the potential drawbacks in supervision, including increasing frequency of communication between the CHW and their supervisor but at the same time reducing the cost of travel when this is potentially unnecessary. Supervisors will be able to provide more targeted face to face supervision based on performance and conduct over the phone supervision

on a more regular basis.

The applications are also intended to focus on CHW performance in both countries. Immediate feedback messages after data submission and the monthly motivational messages provide reminders and key information for improved diagnosis, treatment and prompt referral. In Mozambique specifically, software will walk the CHW through the consultation steps to make sure that no symptom or sign is missed, while providing treatment guidance when all steps are complete. Images, audio and videos will be included in the software to refresh the skills in illness identification and treatment. Helpful tools such as respiratory timer to facilitate pneumonia diagnosis are also expected to improve performance in both countries.

The data sent to district health information system will allow integration with the national health system for wider use and can provide valuable information on health patterns at village level. This use of data is also intended to motivate the CHWs and ensure they feel a key part of the wider health system

The software for the CHW support system has been developed in partnership with Dimagi in Mozambique and ScyFy in Uganda. ■

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Community health workers are using their phones to submit their weekly reports



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