Background

In Mozambique, community health workers (CHWs) — known locally as Agentes Polivalentes Elementares — are trained to carry out health promotion and health prevention activities in the remote areas in which they reside. They also diagnose and treat malaria, pneumonia and diarrhoea; refer cases of malnutrition, as well as newborns and pregnant women with danger signs to the nearest health facility for treatment; provide family planning, antenatal and postnatal care services; and counsel tuberculosis and HIV patients on treatment adherence.

Between 2009 and 2016, Malaria Consortium developed and tested an interactive mobile phone application called inSCALE to improve the quality of care provided by CHWs in Inhambane province. Based on the trial’s success, we created the digital health platform upSCALE together with the Ministry of Health (MoH) and Unicef. Ever since, the platform has continued to evolve to respond to the needs of the country’s Community Health Workers’ Programme — known locally as Programa Nacional de Agentes Polivalentes Elementares (PNAPE).
upSCALE consists of a smartphone app that walks CHWs through patient registration, assists with diagnosis and advises on treatment and referrals, and a tablet-based app that allows supervisors to monitor CHW performance and stock levels. Data entered by CHWs through the upSCALE app is visualised in the District Health Information System (DHIS2) at district, provincial and national levels of Mozambique’s health system. The ability to analyse local disease-specific trends in near real-time allows managers to improve their resource allocation.

**Project outline and objectives**

After testing the platform’s functionality and subsequently its potential for expansion in Cabo Delgado, Inhambane and Zambézia provinces, the MoH now aims to roll out upSCALE nationwide by 2020 in this third phase of the project. Malaria Consortium will provide technical assistance to build PNAPE’s capacity to implement and manage the platform at all levels of the health system, thereby ensuring ownership for long-term sustainability.

**Activities**

Malaria Consortium will provide technical assistance to the MoH to:

- ensure that the app includes new CHW curriculum modules, is more user-friendly and reflects the community level indicator reporting requirements of MoH departments
- build PNAPE’s capacity to use the apps and the data generated to improve resource allocation, as well as administratively manage the platform at all levels of the health system
- facilitate monitoring, supervision and quality assurance of activities at district and provincial levels
- monitor the usage of upSCALE to ensure the platform operates smoothly to optimise data analysis
- build a sense of ownership of the upSCALE platform by developing clear implementation guidelines and standard operational procedures, supporting budgeting and planning for implementation activities at central and provincial levels and transferring the platform’s administration to the MoH
- gather and disseminate evidence on upSCALE’s impact on the quality of services, as well as lessons learnt, to inform further project implementation and help improve other national and international mobile health solutions.

**Learning outcomes**

The project aims to learn:

- how effective the MoH-led upSCALE implementation activities are
- how upSCALE affects the quality of CHWs’ services
- if the CHW programme can switch to digital reporting only and remove monthly paper reports
- how to keep devices’ batteries charged in the field more efficiently.