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upSCALE

Assessing the Knowledge, Attitudes, and Practices of Agentes Polivalentes Elementares (APEs) in Mozambique during COVID-19

Introduction

Community Health Workers (CHWs), known as "Agentes Polivalentes Elementares" (APEs) in Mozambique, play an important role in providing basic healthcare services (e.g., family planning, pregnancy tracking, antenatal and postpartum care) to members of their community (Feldman, 2021). In 2020, their roles and responsibilities expanded to include a range of services related to Mozambique's COVID-19 response. To support this process, technical guidance surrounding COVID-19 surveillance, case definitions, and testing strategies was developed to assist APEs in responding to the pandemic. However, relaying this guidance to them was challenging due to restrictions on face-to-face group meetings and trainings. Additionally, limited information on their COVID-19 knowledge made it difficult for key stakeholders to provide training that was tailored to their learning needs. To address these challenges, Malaria Consortium, Dimagi, and Mozambique's Ministry of Health (MOH) used the upSCALE digital health platform to assess APEs' knowledge, attitudes and practices (KAP) to inform future COVID-19 training initiatives (Feldman, 2021).

Overview of upSCALE

The upSCALE platform was developed in 2016 as a continuation of the Bill and Melinda Gates Foundation funded *Innovations at Scale for Community Access and Lasting Effects*

(inSCALE) project (Feldman, 2021; Malaria Consortium, 2013).[1] It includes: 1) A smartphone application that guides APEs through patient registration, assists them with diagnosing patients, and advises them on treatment and referral options, and 2) A tablet-based application that allows supervisors to monitor their performance. The data that APEs enter through the upSCALE application can be visualized by key health officials in the District Health Information System (DHIS2), an open-source software platform that is used to collect, manage and analyze data at the district, provincial and national levels (Bofill et al., 2018; Feldman, 2021). The application can also analyze local disease-specific trends in near real-time which helps inform stakeholders' response to key health issues.

In 2020, Malaria Consortium, in partnership with the MOH and Dimagi, began adapting the upSCALE platform to support APEs in responding to COVID-19. Some of these adaptations included:

- **Adding COVID-19 training modules** to help APEs diagnose patients.
- **Delivering COVID-19-related messaging** (e.g., SMS, audio, video) to provide APEs with up-to-date information and guidance on the virus.
- **Integrating a COVID-19 knowledge, attitudes, and practices (KAP) survey** to better support the tailoring and targeting of appropriate COVID-19 messaging and training (Malaria Consortium, 2020; Feldman et al., 2021).

Overview of COVID-19 KAP survey

The COVID-19 KAP survey was delivered to APEs from June 9 to August 14, 2020 via the upSCALE platform. To administer the survey, an SMS message was sent to all 1,065 active upSCALE registered APEs in the Cabo Delgado, Inhambane, and Zambezia provinces asking them to complete the questionnaire on the upSCALE platform. The SMS messages were accompanied by instructional videos that demonstrated how to install and complete the KAP survey. The survey referenced material from the World Health Organization (WHO), MOH, and previous KAP surveys that had been conducted during the pandemic. It included nine questions pertaining to COVID-19 symptoms, prevention, transmission, and APEs' main sources of COVID-19-related information. The following table provides an example of one of the questions asked in the survey:

[1] The inSCALE project aimed to increase coverage of integrated community case management, which provided community-based care for diarrhoea, pneumonia and malaria.

Questions	Options
1. Where do you hear or see the messages about COVID-19 (select all that apply)	• Newspaper • Word-of-mouth • Government website • Local television • Local radio • Through upSCALE • Health Facility • Other (please specify) • I have not heard any messages about COVID-19

Of the 1,065 APEs registered with the upSCALE application, 297 (28%) completed the survey. The following table highlights key findings:

Area	Covered Content	Results
Sources of knowledge about COVID-19	- APEs' main sources for COVID-19 information	• Most APEs learned about COVID-19 from the local radio (27%) and their health facility (26%)
COVID-19 Knowledge	- Causes and modes of COVID-19 transmission - Main COVID-19 symptoms - Transmissibility of COVID-19 from asymptomatic patients - Groups that have the highest risks of contracting - COVID-19 preventative measures	• 25% of APEs selected the correct three main symptoms of COVID-19 based on WHO guidance; 16% listed the correct combination of transmission routes • 39% of APEs listed the correct combination of prevention methods • 20% of APEs selected the right combination of actions that someone should take when COVID-19 symptoms develop • Less than 2% of APEs correctly identified all groups who have the greatest risk of contracting COVID-19
Attitudes and practices towards COVID-19	- COVID-19 preventative measures practiced - APEs' adherence to prevention measures from the MOH - Barriers faced in following recommended measures - Knowledge on what to do when symptoms occur	• Most APEs (84%) said that they followed all government prevention guidelines ○ A lack of PPE was mentioned as a factor that prevented APEs from fully protecting themselves

Results from the survey were then used to inform the development of seven COVID-19 health education modules on relevant topics (e.g., hand and respiratory hygiene, the safe use and disposal of PPE) and delivered to APEs via the upSCALE platform (Feldman et al., 2021).

Enablers and Barriers to Implementation

upSCALE's KAP survey helped the MOH and Malaria Consortium assess the knowledge gaps and misconceptions of APEs in order to better tailor COVID-19 training and messaging to their needs. For example, given the low number of APEs that correctly selected all COVID-19 symptoms and transmission routes in the survey, the MOH, supported by UNICEF and other implementing partners, provided APEs with one week of training on basic COVID-19 case detection and management between October and September, 2020. APEs also indicated that the SMS reminders and video instructions they received helped them understand how to complete the survey (Feldman, 2020).

One limitation of the KAP survey was that it required APEs to respond via the upSCALE application on a functional mobile phone which limited the survey's response rates in areas where APEs were more likely to have older phones. To address this issue, upSCALE officials made plans to issue an additional KAP survey in the future that would use standard SMS messaging to allow more APEs to respond (Feldman, 2020).

upSCALE and KAP survey's Impact

Overall, upSCALE's KAP survey was an effective way of assessing APEs' knowledge, attitudes, and practices at the beginning of COVID-19. By administering a survey to assess the COVID-19 knowledge gaps and misconceptions of these workers, upSCALE officials gathered important information that helped inform future training efforts. In the future, the COVID-19 survey could serve as a useful example for other countries looking to evaluate the baseline knowledge of CHWs in order to better prepare them to support members of their communities during and after the pandemic.

References

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