**Key learning**

- Jointly planning implementation activities with the National Malaria Control Programme (NMCP) and the Provincial Health Directorates (PHDs) increased government ownership and ensured effective decision-making.

- Facilitating the exchange of lessons learnt between the district and health facility levels helped motivate staff to report data in a timely manner.

- Separating quarterly supervision visits for data quality from monthly health facility supervision visits improved the quality of supervision.
Background

Despite intensifying its malaria control and elimination activities over the last decade, in 2019 Mozambique was the fourth largest contributor globally to the 229 million new malaria cases reported.\(^{(1)}\)

To accelerate the reduction of its malaria burden, a functional and responsive surveillance system is needed to provide the necessary evidence to identify bottlenecks and target interventions more efficiently.

The 2018 national malaria surveillance system assessment identified the following main obstacles: poor data quality (DQ) and data use (DU), a weak national capacity to implement surveillance activities, a lack of context-specific guidelines and policies, and insufficient health supplies and recording tools. It also stressed the need to develop an integrated malaria information storage system (iMISS).

Project activities

The three-year project Strengthening Malaria Surveillance for Data-driven Decision-Making in Mozambique aims to enhance DQ, DU and data-to-action (D2A) in Mozambique, and deploy an iMISS at district and health facility levels. This learning brief will focus on the general surveillance strengthening activities carried out during the first year of implementation, while learning related to the iMISS will be covered in a separate brief.

Between May 2019 and May 2020, Malaria Consortium:

- distributed 16,389 registers for data collection to all health facilities in the country
- produced a data quality audit (DQA) manual and toolkit
- trained trainers at the national and provincial levels, who in turn trained district and health facility level staff
- facilitated 203 DQA visits to health facilities in 24 districts
- enhanced coordination between national, provincial and district levels by developing guidelines for data-informed discussions and establishing surveillance coordination mechanisms
- initiated an in-depth analysis of existing social and behaviour change (SBC) tools to inform the design of a comprehensive SBC strategy that will address health personnel’s DU behaviours for the remainder of the project.

We also supported the development of an operational research protocol to evaluate the feasibility and impact of implementing reactive malaria surveillance activities in very low transmission areas in southern Mozambique. The research will be carried out in year two (2020–2021) and will guide strategic and operational decision-making.

To mitigate the risk of COVID-19, Malaria Consortium adopted a series of measures, including hosting online meetings and reinforcing hygiene conditions during in-person visits. Registers used for analysis were frequently disinfected, while all participants wore face masks and practised social distancing. We also developed standard operating procedures to ensure safe travel and working conditions.

Project implementation sites, Mozambique
Lessons learnt

• Jointly planning implementation activities with the NMCP and PHDs increased government ownership and ensured effective decision-making. In Manica, Malaria Consortium even integrated its team within the PHD, which allowed for particularly swift coordination.

• External factors significantly delayed the distribution of data collection tools — such as registers — to all health facilities, which highlighted the need to build sufficient risk mitigation into procurement and distribution plans to ensure implementation timelines are not missed.

• We ensured key players’ participation in meetings and motivated them to generate quality data by managing expectations through DQA training, supportive supervision, and the exchange of lessons learnt between health facility and district staff, as well as between higher and lower performing districts. The exchange of experiences between districts was particularly effective in increasing motivation and will be incorporated in the SBC strategy that is currently under development.

• Digital health solutions helped overcome logistical challenges, such as those posed by pandemics, adverse weather and political instability; improve data reporting; and stimulate data-driven conversations and decision-making by connecting health staff at all levels. The latter was demonstrated in Sofala province, where only 75 percent of health facilities were reporting their epidemiological bulletins weekly. By connecting district malaria focal points with PHD technicians, chief medical officers and District Department of Biostatistics officers through a WhatsApp group, we enhanced data discussion and could share regular updates on each district’s performance. This helped increase data availability to over 95 percent. Given the success of the WhatsApp group, the use of the medium will be expanded in year two to facilitate real-time discussion between provinces on data accessed through the iMISS platform, as well as facilitate information sharing between the PHD and the districts about general health activities.

• Developing an electronic DQA database and associated panel that could be used until the iMISS is operational facilitated the use and visualisation of DQA results during technical meetings. This experience informed the design of specific iMISS panels by highlighting how DQA results should be compiled and interpreted.

• Previously the NMCP integrated DQA components into monthly supervision visits to districts and health facilities, which decreased the number of visits but made the supervision tool cumbersome to use. The decision to switch to separate, quarterly visits improved the quality of DQA visits. Malaria Consortium contributed to the development of a DQA supervision tool to capture and report data to the electronic DQA database, while awaiting the deployment of the iMISS.

Success story

Previously, Manica district struggled to carry out quarterly DQAs in all health facilities. However, thanks to the DQA training provided to technicians at 17 health facilities in June 2019, the district was able to carry out DQAs in all health facilities in January 2020.

“It was a very big gain for the district,” said Santana Mário Missage, Chief Medical Officer. “From the moment we were able to visualise the situation of the district, we could better support the technicians. This partnership with Malaria Consortium will allow the constant follow-up of the action plans in place.”
Recommendations

The following recommendations are based on our experience with strengthening malaria surveillance in Mozambique and will be useful for malaria stakeholders within the country, as well as those operating in similar settings.

1. Project implementers working with government departments should identify existing frameworks within which DQA discussions can be integrated to optimise DU and D2A, while reducing any burden associated with these new activities. For example, DQA discussions could be held in conjunction with meetings analysing epidemiological trends.

2. Each level should provide intensive supervision of DQ, DU and D2A activities to the level below to foster local authorities’ autonomy and increase motivation.

3. To improve the quality of DQA visits, quarterly supervision visits are needed that are distinct from general monthly supervision visits to district and health facilities.

4. In addition to scheduling in-person visits, suitable digital solutions should be identified — such as WhatsApp groups and online meeting platforms — to allow for more flexible scheduling and circumvent issues caused by reduced access to health facilities due to COVID-19 measures, floods during the rainy season or political instability.

5. Regular exchange of lessons learnt between districts, as well as between the district and health facility levels, is needed to sustain a data culture and increase the motivation of staff to report quality data in a timely manner.

6. Implementers of surveillance strengthening initiatives should build locally-adjusted SBC activities into their plans, as these are essential to boost data culture and change misperceptions on the importance of DQ and DU at all levels. For example, to further improve the timely reporting of quality data in year two of the project, Malaria Consortium is planning regular competitions that will see districts evaluated on the quality of reported data, the timely entry of data and the follow-up of action plans drafted during data discussion meetings.

7. To avoid stock-outs of registers, project implementers should support districts with their stock management by regularly checking the stock at the health facilities and reporting back to the district level so that orders can be placed in a timely manner.

Reference