



Developing a data-to-action culture in Mozambique

Lessons learnt from the second year of implementing surveillance activities for malaria control

Key learning

- Intensification of data quality assessment (DQA) activities has improved recording and accuracy of data, leading to better data quality in more than 80 percent of health facilities in project districts.
- Improved records, along with district meetings focused on data discussions, have proved invaluable in resolving data quality issues identified during DQA visits.
- Data quality improvements have not only led to an increase in confidence to use data to identify/respond to malaria outbreaks, but they have also encouraged more frequent consultation of records to address bottlenecks and inform decision-making. This has helped to embed a data-to-action culture across project districts.

Background

Mozambique remains one of the main contributors to malaria cases globally.^[1] To reach elimination, the country is making a concerted effort to scale up its malaria control activities. Surveillance — the timely capture, analysis, evaluation and use of data for decision-making around disease prevention and control — is one of the most effective tools to measure both the need for malaria control activities and their impact. Inadequate systems for data collection can result in poor data quality. This, in turn, can lead to biased decision-making and, potentially, erratic allocation of existing resources and strategic interventions.

With support from the Bill & Melinda Gates Foundation, the National Malaria Control Programme (NMCP) is collaborating closely with Malaria Consortium, as well as Centro de Investigação em Saúde de Manhiça (CISM), Clinton Health Access Initiative (CHAI) and Goodbye Malaria, to implement the project Strengthening Malaria Surveillance for Data-driven Decision-making in Mozambique. The project aims to strengthen malaria surveillance, improve data quality and increase the use of data for strategic and operational decision-making. This learning brief summarises the achievements made in year two.

Following the successful development of an integrated malaria information storage system (iMISS) in year one and its subsequent implementation and rollout,^[2,3] our year-two activities focused on consolidating gains on data quality improvements, enhancing data use and creating a data-to-action culture for malaria programme management. During this second phase, the project also addressed specific bottlenecks hindering effective surveillance implementation in the country.



Conducting DQA at the Muera Health Centre in Gorongosa, Sofala

Project activities

Between June 2020 and May 2021, Malaria Consortium and project partners carried out the following activities.

To improve data quality, we:

- conducted 412 DQA visits in 192 health facilities across 22 districts, corresponding to a total of 711 months of data reviewed
- oversaw the distribution of 7,274 registration books and reporting forms at health facility and district level to facilitate record-keeping and support consultation of records during DQA exercises
- held data review meetings with malaria programme managers and implementing partners at the provincial level, and district malaria programme officers at district level, to strengthen surveillance capacity and coordination and supported the central-level Surveillance Technical Working Group (TWG) in our capacity as co-chair. Additionally, every quarter, a meeting with health facility officers and district and provincial representatives was held.
- rolled out the iMISS at district level, led by CHAI, training nearly 1,650 central, provincial and district end users to use the iMISS dashboards and data entry forms
- designed and implemented an evaluation protocol to identify the effectiveness and acceptability of the iMISS and to document lessons learnt during implementation at the health facility level
- established an iMISS task force in January 2021 to identify and address barriers to system uptake, agreeing procedures for migrating historical data (i.e. from DQAs) onto the iMISS.

To encourage data use, we:

- continued to record case-level information in six health facilities in Maputo City to identify potential transmission spots in an urban malaria context
- began implementation activities relating to case notification and reactive focal mass drug administration in Magude and Matutuine districts — REACT is a CISM-led surveillance project gathering evidence to refine surveillance strategies in low-transmission settings
- developed and started implementing a social and behaviour change communications (SBCC) approach to improve data use at health facility and district level in specific project districts
- developed dashboards for active surveillance interventions and adjusted existing case surveillance dashboards for health facilities with simple visualisation tools and selected indicators.

Results

- All targeted districts showed improvements in data quality (including accuracy), likely attributable to the cumulative effect of DQA activities in year two. These included the ongoing supply of data registration tools, such as consultation books with standardised fields for daily summaries, that facilitated compilation of malaria statistics and improved case registration processes.
- Stock-outs of reporting tools dropped significantly following the mass distribution of registration books and reporting forms: only two percent of 198 health facilities experienced stock-outs, which were rapidly solved.
- Responsiveness to issues found during health facility supervision activities increased substantially; around 67 percent of problems raised were followed up and addressed.
- Overall use of data for decision-making has improved; Malaria Consortium supported 24 meetings in project districts, helping to identify malaria-related problems and their potential causes, and to define specific actions.
- In some districts, 100 percent of health facilities reported monthly data through the iMISS.
- Uptake of iMISS dashboards improved at the end of year two, supporting the identification of DQA issues.

Lessons learnt

- To address the shortfall of operational, human and financial resources needed to scale up DQA visits, we integrated DQA modules into the iMISS supervision tools to improve access to high-quality data. This enhanced our understanding of data-quality trends in the country. During implementation, we were able to identify key bottlenecks to target — primarily a lack of financial and logistic support to conduct assessments at health facility level — to ensure effective DQA activities.
- To resolve data quality problems identified, we established district meetings focused on data discussions. These allowed us/stakeholders to resolve issues found during DQA visits, by identifying clear actions, persons responsible and timelines. In year two, a total of 728 issues requiring action were flagged following DQA visits and these were clearly targeted in district action plans.
- In 2020, we developed a monitoring and evaluation (M&E) plan to track iMISS implementation and shared this with the NMCP for approval. Initial efforts in early 2021 revealed extremely low system uptake. In response, Malaria Consortium, NCMP and CHAI established the iMISS task force to conduct regular monitoring of system uptake and use. The partners liaised with provincial focal points, conducted iMISS supportive supervision visits, and identified and addressed user challenges (logistical and technical constraints relating to tablet use, internet access, user logins, and overall IT literacy and familiarity with iMISS dashboards). Supervision visits have proved invaluable in identifying limitations relating to training and the use of equipment.
- Due to the delayed project launch, country-wide trainings ended several months before iMISS deployment in February 2021. The time lag between training and rollout of the iMISS resulted in inadequate skills retention among some trainees. We found that refresher trainings and supervision at the national and provincial levels were required, as well as data-entry supervision visits at the provincial and district levels. To minimise trainees' loss of knowledge and practice acquired during trainings, we will prioritise conducting sessions as closely as possible to rollout.
- Inadequate internet access and irregular power in some health facilities impacted on access to case data, which delayed warning of outbreaks and subsequent investigations. CISM was able to identify potential transmission hotspots using case investigation and classification procedures, which identified the source of individuals infected with malaria.
- A lack of alignment between development of the iMISS surveillance modules and the start of activities resulted in CISM developing a parallel system. To streamline duplicated efforts, CISM has prioritised the integration of this system into the iMISS once the case investigation modules have been fully developed.
- Experience exchange activities in Inhambane and Manica provinces, monitored by Malaria Consortium, highlighted performance gaps among staff relating to data quality and use. These activities provided a helpful platform for district staff to share best practices and to learn from each other. Staff who visited high-performing districts reported how valuable it was to see that districts and health facilities facing similar constraints were able to improve the quality and use of their data through routine implementation of field DQA and follow-up visits. As a result, districts recorded significant improvements in these areas.

Recommendations

1. **Scale up DQA and data-use interventions** across all targeted districts. Mechanisms such as the iMISS task force and Surveillance TWG should continue to monitor DQA and integrated supervision data. This will ensure that those districts and provinces not currently implementing at scale are monitored to improve field implementation of data quality and data use activities.
2. **Consider bottlenecks when developing iMISS tools and modules** and plan strategies that can mitigate the impact of delays during rollout. Development calendars should be realistic, with trainings planned only once field implementation is assessed as being feasible.
3. The iMISS task force should **focus on systematically monitoring the performance of the platform through the M&E performance framework** developed by the group. This will enable rapid identification of issues and appropriate actions. Provincial task forces should additionally be established to reinforce local uptake and decision-making based on the local context and available resources.
4. **Develop and trial decision tools**, such as flowcharts linked to key iMISS dashboards, in year three to **improve a data-to-use culture** across all districts. These will help guide essential discussions at district level.
5. **Implement SBCC interventions to encourage a tangible shift from opinion-driven decision-making to decision-making that is informed by iMISS data.** Implementation of the SBCC approach will contribute to foster uptake of data-informed actions and subsequent follow-up.
6. While these decision tools encourage data-oriented decision-making, **local knowledge and expertise grounded in qualitative data should be considered for local decision-making.** Decision-making support tools developed should be flexible, rather than prescriptive, and promote a combination of data-informed and expert opinion.
7. **Conduct monthly visits and data checks at health facilities** to ensure that case-based data are correctly captured, and transmission foci are accurately assessed.

References

1. World Health Organization. World malaria report 2020. Geneva: WHO; 2020. Available from: www.who.int/teams/global-malaria-programme/reports/world-malaria-report-2020.
2. Malaria Consortium. Strengthening surveillance for data informed malaria control activities: Lessons learnt from the first year of implementation. London: Malaria Consortium; 2021. Available from: www.malariaconsortium.org/resources/publications/1426/strengthening-surveillance-for-data-informed-malaria-control-activities.
3. Malaria Consortium. Facilitating evidence-informed programming in Mozambique: Lessons learnt from deploying an integrated malaria information system. London. Malaria Consortium; 2021. Available from: www.malariaconsortium.org/resources/publications/1434/facilitating-evidence-informed-programming-in-mozambique.

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