



Improving Provider and Supervisor Skills on Data Management, Monitoring, and Evaluation for Malaria Services at the Malaria Control Program in Côte d'Ivoire

WHO ARE WE?

PMI Measure Malaria (PMM) is funded by the President's Malaria Initiative (PMI) of the United States Agency for International Development (USAID). Its main objective is to support the strengthening of the Routine Health Information System (RHIS) and malaria surveillance, monitoring, and evaluation (SME) in the 20 USAID-supported health districts of Côte d'Ivoire.

Building on the lessons learned and successes of USAID's MEASURE Evaluation project in scaling up web-based health information models and approaches, the PMM project has improved the capacity of providers, central level supervisors, and regional and district management teams to conduct data quality assessments and analysis through the implementation of dashboard data desk review and facility-level data quality assessment to enable health managers and providers to develop action plans for solutions to data quality and health information access issues.

BUILDING SUPERVISORS' TECHNICAL CAPACITY IN DATA QUALITY MONITORING AND EVALUATION (M&E)

PMM supported the development of a training curriculum and tools for the surveillance, monitoring, and evaluation of malaria control services. After validating the curriculum and tools with the National Malaria Control Program (PNLP) and its partners, the project conducted trainings and supervision to help supervisors at all levels of the health system assess and analyze data quality. The activities for capacity building of providers and supervisors included:

- Development of dashboards in District Health Information Software, version 2 (DHIS2) to visualize the completeness and timeliness of reports;
- Updating validation rules to identify inconsistencies in reported data;
- Training on the use of the Malaria Routine Data Quality Assessment (MRDQA), data quality, trend monitoring and evaluation tools; and
- Coaching during review meetings and on-site data quality assessment activities.

In collaboration with the PNL and the Directorate of Information Technology and Health Information (DIIS), PMM organizes training and coaching sessions for malaria focal points and management teams from the regions and health districts, partners, and the private sector on the review, monitoring, evaluation, and analysis of data quality and trends.

To ensure the sustainability of activities, data quality reviews were integrated into the quarterly district meetings. After training supervisors on the use of tools for reviewing, monitoring, and evaluating data quality and trends, PMM collaborated with DIIS and the PNL in quarterly district meetings to coach supervisors in reviewing and analyzing data quality and conducting site evaluations in health centers with data consistency problems.

Proportion of Supervisors Trained on SME Trends and Data Quality

100% of national level supervisors

61% of regional supervisors

55% of district supervisors

100% of malaria focal points

100% of supervisors of other implementing partners (IPs)

TRAINING ON SME OF DATA QUALITY, TRENDS, AND USES

To date, PMM has trained and mentored 108 supervisors, including 32 women, from the Cote d'Ivoire health system on SME during four sessions in 2021 at the national level. The 2022 session on SME had 25 participants, including 12 women. Participants in the M&E training sessions are supervisors and M&E specialists from the central level of the DIIS, the PNL, management teams and malaria focal points from health regions and districts, chief medical officers from hospitals and health centers, community activity coordinators, and USAID technical partners. They were trained and coached on monitoring malaria indicator trends and data quality. The use of these tools enabled:

- The Health Information Directorate to monitor and improve data quality;
- The NMCP to monitor and observe improved accuracy of malaria data in **75%** of rural health centers, **66%** of referral hospitals, and **58%** of urban health centers;
- Health districts and regions to facilitate data quality review during quarterly meetings, and;
- Partners to monitor data quality in their intervention areas and report to USAID.

Data quality reviews with the use of electronic tools such as validation rules and dashboards allowed the development and monitoring of action plans for the improvement of malaria data quality. With the visualization and analysis of data quality in terms of completeness, timeliness, and data inconsistencies, health services supervisors were able to identify problems in real-time and routinely seek solutions. Thus, depending on their health information needs, all supervisors are now able to develop dashboards and conduct data quality reviews.

Capacity Building of Supervisors on the Use of the MRDQA for Malaria Data Quality Assessment at Service Delivery Sites

The PMM project has trained **100** supervisors, including malaria focal points, central level data managers (PNLP, DIIS, DGS, DSC, INSP), community activity coordinators, M&E specialists, and regional and district technical advisors on the use of the MRDQA tool. The data quality assessments were conducted **six** times in **11** health facilities, including in **four** referral hospitals from **20** districts supported by PMM. These health facilities had the highest number of data inconsistencies identified during the quarterly data desk reviews.

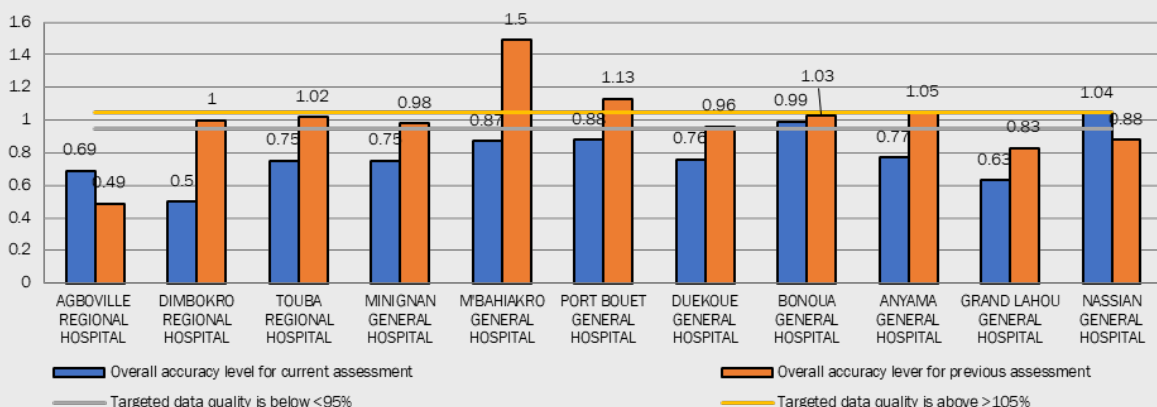
The results of the assessments between April 2022 and July 2022 allowed the Health Centers (ESPs) to develop action plans to address data quality issues as shown in the graph below.

A district-level supervisor stated, "We used to work in M&E departments without really understanding what we were doing, but with the training, I now have a better understanding of the process and the importance of SME for a district."

A regional supervisor said, "I easily understand the importance of having an SME plan at the regional level."

A health facility manager stated, "I have come to know the impact of using the MRDQA tool on data quality and the right way of entering data in data collection tools."

Evolution of overall data accuracy between the April and July 2022 assessments



CAPACITY BUILDING FOR MANAGERS OF HEALTHCARE AND SERVICE DELIVERY STRUCTURES ON DATA ANALYSIS AND USE

To strengthen real-time data access for service and healthcare providers, PMM developed the malaria Scorecard and Dashboard mobile applications (apps). The project trained 50 service providers, including nurses, midwives, pharmacists, physicians, and data managers at the district level in two sessions.

During quarterly district meetings, the PMM project coached district management teams on the use of web and mobile scorecard and dashboard apps to review and analyze malaria indicator trends on prevention, testing, treatment, and impact. Following this analysis, action plans were developed for each healthcare facility facing any malaria service and commodity management problems.

Each health facility holds monthly meetings with staff, community health workers, and community leaders to monitor and evaluate progress in service delivery, patient health outcomes, commodity management, and to update action plans.

The service providers appreciate the use of these mobile applications. The head of the Larabia health center in the Grand Bassam district said, “Before the use of mobile applications, we thought we were doing well, but since we started using them, we have changed many imperfections in the services we offer.”



Agboville district data desk review meeting facilitated by PMM. Photos courtesy of PMI Measure Malaria.

RESULTS OBSERVED AFTER THE ADOPTION OF DATA QUALITY ASSESSMENT TOOLS

With follow up on the implementation of the action plans and the data quality review, the project-supported health centers (HCs) recorded the following results:

95% of HCs

reported monthly data on time from 2020 to 2022

99% of HCs

had complete monthly reports from 2020 to 2022

99% of HCs

had accurate data on malaria cases and mosquito nets distributed

Health districts organize quarterly data reviews with the participation of health workers from health facilities. In addition to the dashboards they developed, they also use validation rules to assess data quality. During the meetings, participants analyze and discuss data completeness, timeliness, and inconsistencies, and progress with implementation of the action plan and propose solutions for strengthening or changing data quality monitoring strategies.



Use of Data Quality Assessment Tools in All Regions of the Country

With the successful implementation of the data quality assessment tools, the National Malaria Program, as a Global Fund recipient, is using this funding to conduct the data quality assessment of non-USAID-supported regions and districts. With funding from the Global Fund, PMM coached the PNL and DIIS to train and conduct these data quality assessments in non-USAID-supported regions and districts. With these data quality assessment tools, including the MRDQA, the Ministry of Health was able to conduct assessments in the country's districts and health centers.



Data quality assessment training workshop at the central level. Photo courtesy of PMI Measure Malaria.

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