Technical Brief
Monitoring and Evaluation for Improved Malaria Data Quality in Ghana

Background
Since 2009, the Promoting Malaria Prevention and Treatment (ProMPT) project in Ghana, funded by the United States Agency for International Development (USAID) under the President’s Malaria Initiative (PMI), has worked with the country’s National Malaria Control Program (NMCP), part of the Ghana Health Service (GHS), to strengthen malaria prevention and control and scale up evidence-based malaria interventions. The main components of ProMPT, managed by University Research Co., LLC (URC), have been: 1) prevention of malaria through use of long lasting insecticide treated nets (LLINs); 2) management of malaria in pregnancy (MIP) and case management of simple and severe malaria, with a focus on children under five; 3) capacity strengthening to implement community-based malaria prevention and control activities; and 4) health systems strengthening for monitoring and evaluation (M&E). ProMPT’s efforts focused on seven of Ghana’s ten regions.

This technical brief covers the fourth component of the ProMPT project, health systems strengthening for M&E, discussing major program approaches and strategies for effective implementation. This brief also explains the lessons learned and recommendations gathered through ProMPT’s experience with M&E work.

Program Approaches
ProMPT supported malaria data collection, capture, analysis, and reporting at all levels of Ghana’s health system through a variety of interventions carried out in close collaboration with government counterparts. While ProMPT’s support was focused on malaria, the project’s interventions also improved overall systems to support improved data quality. Some of the key project approaches and interventions implemented with government counterparts include the following:

- **Supporting country leadership** by implementing all M&E activities in close collaboration with government counterparts (such as central-level staff at NMCP and the Policy, Planning, Monitoring, and Evaluation [PPME] Unit of GHS) as well as regional and district-level staff (such as health information officers [HIOs] and malaria focal persons).
- **Elevating the importance of malaria data quality** by assisting regions to carry out periodic malaria data review meetings to address issues and share good practices and through facility coaching visits (conducted with GHS staff) to improve malaria data reporting.
- **Fostering an enabling environment** to strengthen malaria prevention and control through interventions such as training health staff on data management and use of reporting tools, providing computers and network infrastructure for NMCP, and revising and distributing malaria reporting tools.

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ProMPT will support the training of almost 1,400 health facility staff in reporting malaria data on the new consulting room register by the end of the project.

- **Promoting continuous learning** by working with GHS to carry out LLIN campaign evaluations, which yielded evidence to refine activities in future campaigns, and by supporting GHS to carry out data quality assessments, which identified gaps in malaria data quality at the facility level.

- **Acting at multiple levels of the larger system simultaneously** by carrying out a variety of activities that supported the central level down to the community level, including support to non-governmental organizations (NGOs) to strengthen community volunteer and community-based agent reporting systems.

**Strategies for Effective Implementation**

Elevating the importance of malaria data quality was a driving force behind ProMPT’s approach to strengthening M&E systems for malaria. ProMPT worked hand-in-hand with the NMCP, the PPME, and the PPME’s Centre for Health Information Management (CHIM) to coordinate national responses to data quality issues. This support extended to counterparts at all levels in the system, from regions down to sub-districts and communities to determine the best angles for addressing issues and the leverage points most likely to produce significant improvements.

Addressing some of the basic needs of GHS units such as NMCP and CHIM was a key element of ProMPT’s approach and helped to build a firm foundation for ongoing improvements in data quality and use. In the early stages of the project, some of these investments included supplying equipment and network infrastructure for the NMCP to increase its capabilities to record, analyze, and report data. ProMPT also assisted the NMCP to develop and disseminate a new M&E plan, which helped to create a framework to meet Global Fund reporting requirements without the use of a parallel system.

The project’s approach evolved over time, and the focus shifted to streamlining systems for collecting and reporting malaria data as well as for facilitating communication throughout the health system to address malaria-related data challenges. Placing a seconded senior M&E advisor from ProMPT in the NMCP assisted this process, as he was able to provide ongoing leadership and technical direction to strengthen M&E. For example, the advisor played a major role in the execution of the national Multi-Indicator Cluster Survey, which included biomarkers of malaria such as anemia and parasitemia. As a result, NMCP has a greater range of data for assessing performance and improving program planning.

The importance of focusing attention on malaria data collection at the facility level was a recurrent theme in technical assistance, and ProMPT supported the introduction of more user-friendly and accurate data capture and reporting forms and tools to strengthen M&E. The NMCP compiled its four malaria reporting forms into one booklet with carbon copies so that facilities could keep copies of their malaria reports and better track their progress. Based on the findings from a joint assessment of the accuracy of malaria data reported to the national District Health Information Management System, ProMPT, PPME/CHIM and NMCP revised the existing consulting room patient registers to better capture routine data, including data on number of suspected cases of malaria that had been tested. Facility and health information staff then participated in interactive and discussion-based training sessions to learn how to use the
They also heightened senior-level health managers’ awareness of concerns about data and informed development of action plans on data quality improvements. Three major cross-regional review meetings, in which HIOs from neighboring regions (Ashanti/Brong Ahafo, Eastern/Volta, and Upper East/Upper West/Northern) interacted and shared experiences, also stimulated efforts to improve malaria M&E. Furthermore, the coaching visits and review meetings helped to address the challenge of staff turnover by familiarizing newly-appointed, not-yet-trained HIOs and facility staff with malaria data quality issues and procedures. In addition, regional malaria bulletins were another ProMPT-supported intervention to foster malaria data learning throughout the GHS.

Support for improving malaria M&E extended to 33 ProMPT-supported NGOs working at the district, sub-district, and community levels. ProMPT provided ongoing technical assistance and reporting tools to NGOs to improve the capacity of community volunteers and community-based agents to capture and report data. The project also encouraged NGOs to share their data with their respective district health management teams and district assemblies.

Other ProMPT-supported M&E interventions contributed to evidence-based malaria prevention programming. Post-LLIN hang-up campaign review meetings, conducted by NMCP, together with collection of data on net availability and use, provided input for improvements in subsequent campaigns. An outcome evaluation of the Northern Region LLIN campaign and a process evaluation of the Eastern Region campaign also yielded evidence to refine activities for future campaigns in other regions. Specifically, the evidence from the Northern Region Outcome Evaluation\(^1\) gave many partners confidence in the effectiveness of the approach and led to their commitment for replicating this strategy.

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Lessons Learned and Recommendations

ProMPT’s experience has revealed the following lessons learned and recommendations:

- **Strengthen the capacity of data management staff already in place.** In Ghana, HIOs were specially trained to handle data issues throughout the health system but lacked the resources and authority to lead effective data management. ProMPT identified, trained, and provided resources for HIOs, making their role in the health system more visible and empowering them to better execute their core mandate.

- **Highlight M&E issues in public forums.** ProMPT shared M&E issues, challenges, and findings with GHS managers from the national level to the facility level through review meetings and malaria bulletins. This increase in awareness has led to discussions and actions among health system leadership on appropriate steps needed to improve routine M&E systems.

- **Employ coaching techniques as well as training.** Given the large numbers of staff that needed to be trained and oriented on M&E processes, ProMPT’s on-the-job coaching approach, delivered as a reinforcement of the training program, aided the dissemination of improved processes for routine data capture and reporting.

- **Foster strong linkages between the project and the health system.** ProMPT’s senior M&E staff member seconded to the NMCP ensured that collaboration with the national health system worked smoothly. The seconded staff member provided technical expertise to the NMCP and led the way in institutionalizing improved routine malaria data monitoring and reporting. The staff member’s presence also ensured that ProMPT and the NMCP were able to act together quickly to address systemic M&E challenges.

- **Build an appreciation for the role of data among health workers.** ProMPT adopted a multi-pronged approach to sensitize health workers on the value of data. Interactive interventions such as periodic data review meetings, coaching visits, and consulting room register trainings involved a broad spectrum of health workers. These types of approaches enabled workers to better understand the importance of having quality data for programming and service delivery and sharing this information with other health workers.