RBM Partnership
To End Malaria

MEETING REPORT

Twenty-Eighth Meeting of the RBM Partnership
Monitoring and Evaluation Reference Group (MERG)
18 – 20 October 2017
Mbour, Senegal

Acronyms

ACT	Artemisinin-Based Combination Therapy
CDC	Center for Disease Control and Prevention
CHW	Community Health Workers
CRS	Catholic Relief Services
DHS	Demographic and Health Surveys
DHIS2	District Health Information Software 2
GF	Global Fund to fight AIDS, Tuberculosis and Malaria
HBM	Home Based Management
HH	Household
HMIS	Health Management Information System
HNQIS	Health Network Quality Improvement System
IRS	Indoor Residual Spraying
LLNs	Long Lasting Nets
M&E	Monitoring & Evaluation
MERG	Monitoring and Evaluation Reference Group
MIS	Malaria Indicators Survey
NMCP	National Malaria Control Prevention
PCE	Prospective Country Evaluations
PECADOM	Prise En Charge à Domicile
RDT	Rapid Diagnostic Test
SMC	Seasonal Malaria Chemoprevention
TERG	Technical Evaluation Reference Group
TOR	Terms of Reference
QoC	Quality of Care
WHO	World Health Organization

Participants

Co-chairs

Erin Eckert	USAID/PMI
Medoune Ndiop	NMCP Senegal
Arantxa Roca-Feltrer	Malaria Consortium

Secretariat

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Lia Florey	USAID
Anne Gasasira	African Leaders Malaria Alliance
Christelle Gogue	PATH
Michael Hainsworth	PATH MACEPA
Michael Humes	USAID
Eric Hubbard	CRS Mali
Hannah Koenker	John Hopkins University Center for Communication Program
Ryuichi Komatsu	The Global Fund
Cristina Lussiana	PSI Kenya
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Fatimata Sall Ndiaye	Africa IRS Project
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Meeting Objectives

1. Assess innovations in collecting and using surveillance data
2. Identify examples and opportunities to use routine monitoring data to improve programs
3. Examine developments in large-scale evaluations
4. Improve global indicators to measure progress
5. Address RBM and MERG business issues

Meeting Notes

Objective 1: Assess innovations in collecting and using surveillance data

1.1 Senegal's experience using surveillance data during a rapid transition from high to low burden
Moustapha Cisse, NMCP Senegal

Moustapha Cisse explained how Senegal's has implemented the PECADOM and PECADOM plus strategies for home-based management to detect and treat malaria cases through volunteer community health workers (CHW). He discussed the improvement observed in malaria morbidity and mortality in the implementation regions and in the country overall. PECADOM is part of the national strategic plan, so includes both public and private facilities.

MERG participants discussed inclusion of the private sector, frontier surveillance, and budget allocation for the PECADOM program. Concerning frontier surveillance, Dr Cisse recognized that it is a serious problem but that the country has yet to develop an appropriate solution. He explained that finding money to support the program has not been an issue because funding partners are either explicit about how money is allocated or give that authority to the National Malaria Control program (NMCP) itself.

1.2 Overview of the field study tour on Senegal's home based management system
Médoune Ndiop, NMCP Senegal

Médoune Ndiop presented on the previous day's study tour, where MERG participants visited the health district of Poponguine and a village where home-based management is implemented. He described the PECADOM strategy, the target population, and the work of the DSDoms (CHWs) in the community. He presented the different questions raised during the study tour and explained that the quality of the data collected on site has been high. MERG participants were interested in how CHW stay motivated to complete this work and were impressed to learn that CHWs are selected by communities for already being involved and wanted to do more. As such, most of them are not expecting something in return but rather better conditions to do their work. CHW also receive formal training and service recognition by the NMCP.

1.3 Using the new DHIS2 malaria module to improve surveillance
Ryan Williams, WHO

Ryan Williams presented on WHO's work on a malaria module for DHIS2. The module intends to strengthen a country's malaria surveillance by identifying what data a country wants to collect, providing a comprehensive list of variables to track trends, and allowing for easier data sharing and transfer. The new module can standardize malaria information and includes a broader disease surveillance tool for countries. Dr. Williams emphasized that a specific coding set to facilitate sending information and reduce duplication is used. The dashboard has standard charts and reports and offers countries many options. WHO has completed pilot tests in a few countries and will expand country pilot testing.

A small discussion occurred about the extensiveness of the new malaria module, which reverses a trend to reduce the number of indicators being reported. MERG participants are also concerned about the vastness of options and the difficulty of mapping the module and its indicators to existing DHIS2 systems. MERG participants reminded one another introducing a new technology can help organize data better but will not in itself improve data collection and use. Regarding patient privacy in the new module, Dr. Williams explained that the module can either use an arbitrary patient ID to omit patient identifiers in the module and in shared datasets or can be locked for use by only a few people with sign-in credentials.

Action item: *Dr. Williams will share the draft malaria module and related operational guidance documents for MERG members to review. MERG secretariat will coordinate and share feedback to support findings of the pilot tests.*

1.4 Discussion on the evolving needs of surveillance data

Arantxa Roca-Feltrer, Malaria Consortium

Arantxa Roca-Feltrer presented on the increasing need for surveillance as an intervention in the context of reduced malaria burden. Of critical importance is a surveillance system that can address sub-national trends. Dr. Roca-Feltrer raised some key reflections and learnings from the MERG study tour: strong supervision and a coordination structure led to high data completion rates in PECADOM and a smooth integration with DHIS2; community engagement is critical for a country's surveillance system; and Senegal has successfully kept workers motivated to result in high quality data.

MERG participants discussed the future of surveillance work.

Objective 2: Identify best practices and opportunities to use routine monitoring data to improve programs

2.1 Integrating epidemiological and IRS data from hotspots

Fatimata Sall Ndiaye, Africa IRS Project

Fatimata Ndiaye discussed how Senegal has implemented indoor residual spraying (IRS) in hotspot regions and health posts. She mentioned that to make sure the data collected is reliable and valid, the person collecting the data is supervised and the supervisor is also supervised by someone else. Dr Ndiaye emphasized that it might be important to consider other factors such as the weather to forecast rains in order to anticipate the effect of IRS in some regions.

2.2 Integrating epidemiological and IRS data in full-coverage IRS districts in Mali

Christelle Gogue, PATH

Christelle Gogue presented the work PATH has been doing in countries to build the evidence base on efficiency of next generation insecticides. PATH works to best analyze routine data collected to understand what is feasible in country. Mali was chosen to display this work. The first step was to know the stakeholders and what type of information they wanted. PATH then collated epidemiological, entomological, demographic, and climate data from IRS, LLIN campaigns, and SMC program. Ms. Gogue presented some graphs of districts that received IRS and discussed about the impact on regions and on the malaria incidence and the value added of IRS.

2.3 Use of DHIS2 to inform programmatic decision making in LLIN distribution campaigns: Lessons learned from DRC

Bram Piot, PSI

Bram Piot provided an overview of the work done by PSI in conjunction with a weeklong net distribution campaign in DRC in 2016. He explained that different levels of staff were recruited to fill in daily forms directly in DHIS2 looking at LLIN quantification and distribution. The nearly real-time data collection from mobile phones was useful to improve the efficiency of the campaign. SMS could be considered for future data collection to address some of the connectivity issues, but this will mean greater potential for data error. Dr. Piot's team hopes to load census data directly in DHIS2 the next time around so coverage rates can be calculated automatically.

2.4 Using routine data for decision making

Alioune Camara, NMCP Guinea

Alioune Camara briefed participants about the health situation in Guinea before the Ebola outbreak and how the epidemic helped them recognize the weakness of their data collection system. DHIS2 was implemented from this point to help collect data for malaria; Dr. Camara presented the work done in some regions in Guinea. After analysis, they found that in some districts there was less reporting from the CHWs and that there was high malaria transmission despite high coverage with LLINs. After the study, regional health districts were asked to directly supervise CHWs to improve reporting and the validity of the data reported. Other recommendations to emerge from the data analysis include strengthening larvicide activities and explore potential of IRS and mass treatment.

2.5 Discussion on strengthening collection, analysis, and use of monitoring data to improve programs

Julie Thwing, CDC

Julie Thwing highlighted the growing discussion around the use of routine data to make decisions compared to ten years ago, where the discourse focused more on household surveys. Dr. Thwing walked participants through sample data to conceptualize incidence and the complexities with making programmatic decisions from the numbers. The question raised was: how can MERG help NMCPs to better measure and understand true incidence, especially as we move into targeted programs with greater granularity?

During the discussion, participants discussed data on care-seeking behavior from household surveys and case management guidelines in low transmission settings. High test positive rates (TPR) in areas of low transmission could be due to selective testing in adherence with guidelines and for areas of high transmission, as more people are tested, it can explain a lower TPR. MERG members discussed how to improve our definition of incidence and potential modeling methods (stratification and aggregation) to address these biases.

Participants expressed concerns about the parts of routine reporting that need further investment, such as strengthening use of routine data to manage programs, basic visualization of incidence, interpretation of what's behind the numbers, and availability of data for users. Processes need to be standardized to optimize the use of data.

Michael Hainsworth's presentation on Tableau Software

Michael Hainsworth also shared data from Zambia on Tableau. Multiple dashboards were presented in the software showcasing data quality, missing reports, global views, travel history, incidence, and prevalence. Filters are available to users so they can select the time frame, geographic area, or specific facility they would like to investigate. A map presents the malaria incidence of the selected country with colors to highlight positives or negatives. The missing report feature allows users to easily locate missing reports by giving the facility name, the year, the week, and the contact of the facility or health district to contact.

Objective 3: Examine developments in large-scale evaluations

3.1 Brief overview of Global Fund's prospective country evaluations

Ryuichi Komatsu, Global Fund

Ryuichi Komatsu spoke on the Global Fund's (GF) strategy and the Technical Evaluation Reference Group (TERG). He emphasized the fact that evaluations generally result in reports that, unfortunately, are not well used, and gave the example of the emergency fund for West Africa that was used during the Ebola epidemic. To correspond to the GF's identified goals, Perspective Country Evaluations (PCEs) have been launched in 6 countries where the GF is working in collaboration with the government. In each country, there are extensive stakeholder review meetings to ensure collaboration of all malaria stakeholders.

3.2 Progress on Senegal's prospective country evaluation

Roger Tine, University Cheick Anta Diop de Dakar

Roger Tine explained that the GF's funding for HIV and malaria has increased and raised the concern of how this increase will contribute to the impact on disease burden. The PCE in Senegal will comprise an impact evaluation and a process evaluation. For the impact evaluation, a theory of change was developed, but may experience some changes depending on the monitoring activities that will be performed and the engagement of the stakeholders. Concerning the process evaluation, Dr. Tine mentioned that milestones and the targeted study will be determined based on stakeholders inputs, GAVI mandated questions, and a current documents review.

3.3 Monitoring diagnostic practices using routine data

Julie Thwing, CDC; Alioune Camara, NMCP Guinea; and Médoune Ndiop, NMCP Senegal

Dr. Thwing started the presentation by asserting that the majority of malaria cases in Sub-Saharan Africa are not properly managed, with testing identified as the weakness in the malaria case management process. She presented a method of adjusted calculation to find true malaria cases and mentioned that it is possible, but challenging, to use surveys to improve the rate of diagnosis.

Dr. Camara and Dr. Ndiop presented the method of calculation using Guinea and Senegal as examples. The NMCP of Senegal emphasized to health workers to pay attention to all fever cases as potential malaria cases, not only during the rainy season. He also raised a concern that in regions approaching elimination, there is a high rate of non-tested cases of fever as health care workers are growing used to seeing fewer malaria cases. Another concern with reporting quality is that when health facilities report a certain number of cases, they may get red flagged, which could lead underreporting or under-testing. MERG participants also discussed the importance of reexamining the assumption that non-malaria fever is not seasonal.

3.4 <u>Developing a framework for conducting evaluations in moderate and low transmission settings</u>

Yazoume Ye, MEASURE Evaluation

Yazoume Ye suggested a MERG task force to develop a companion piece to the previously published guidance document on conducting impact evaluations for malaria, which was intended for high burden settings. As NMCPs make progress, they will be looking to measure achievements and show impact, but this will require adapting methods. MERG partners will need to define scale up and know when it has been sufficient to warrant an impact evaluation and the use of the proposed methods.

3.5 <u>Discussion on new development and future of population-level evaluations</u>

Yazoume Ye, MEASURE Evaluation

During the discussion, participants talked about conflicting results from previous impact evaluations and proposed to take best data from each source and piece it together into a comprehensive story about malaria interventions. Some participants were concerned about the effect on final results if only one source of data is available. MERG members agreed that it would be helpful to know when evaluations occur (even in high burden countries) so partners can potential collaborate or triangulate results and so programs can see what is happening at the global level

It was also pointed out that data, including surveys and impact evaluation reports, are often presented at the regional level, which makes it difficult to properly use the results when countries promote sub-regional decision making.

Members talked about the importance addressing cost-effectiveness, transmission intensity, and also malaria-specific mortality

Action item: *Evaluation task force that will develop low burden evaluation framework*

Objective 4: Improve global indicators to measure progress

4.1 Results from the "source of nets" questions and recommendations for improvement

Bolanle Olapeju, John Hopkins University Center for Communication Programs

Bolanle Olapeju shared results of the question, "Where do people obtained nets?," which had been raised at a previous MERG meeting. Overall, people received nets from mass campaigns, but Dr. Olapeju emphasized that the goal of this research was not to replace mass distribution but to help close any gaps campaign might have. Additional channels for distribution, such as the private sector, may be useful in some countries. She mentioned the potential of misclassification from population-level data, so we may consider how we can validate this kind of data.

4.2 Elevating the importance and use of the population ITN access indicator

Hannah Koenker, John Hopkins University Center for Communication Programs

Hannah Koenker discussed universal coverage of ITNs by household following mass campaigns. The goal of 1 ITN for every 2 people has not been reached in all countries and households; Dr. Koenker stated that we cannot expect countries to reach 80% at a national level due to varying household composition. She proposes replacing this indicator with "population access to ITNs" as a measure of universal coverage based on people as the unit of analysis.

***Action item proposed**: Develop current draft manuscript into a MERG authored publication*

4.3 Changes to data collection of standard indicators in malaria endemic countries: 6th round of MICS

Ashraf Mohamed Mrabet, UNICEF

Ashraf Mrabet presented changes in the latest round of MICS on behalf of Liliana Carvajal. He noted that the only technical change was exclusion of indicators related to blood testing, including wording of the questions and the generated indicators. Also, the report format will be a bit shorter than the previous ones in an effort to publish it within 6 months.

4.4 Finalized changes to household survey indicators

Cameron Taylor, the DHS program

Cameron Taylor shared some of the changes to household surveys. She explained that the IRS indicators will no longer be collated and the tables will not be featured in future MIS reports. Questions related to retreatment have been dropped and LLINs will be counted but called ITNs. The upcoming Malawi report will be the first to incorporate all these changes.

4.5 Use of Health Network Quality Improvement System to monitor and improve quality of malaria case management: A case study from Nigeria

Christina Lussiana, PSI

Christina Lussiana shared PSI's work to improve malaria case management through two methods: Health Network Quality Improvement System (HNQIS) and the data-to-action

framework. The data-to-action framework recommends follow up action regardless of whether the indicator meets a target or not. The framework is set up, tracks progress over time, includes an interpretation segment to allow users to engage with the data. Ms. Lussiana presented the results of the work in Nigeria. She explained that facility assessment visits are prompted by the tool based on the quality of care rankings and the facility's client load. In cases where the performance of a facility does not improve after multiple visits, she mentioned that stronger measures like refresher training might be possible, but these are not yet integrated into the system.

4.6 Discussion on improving global indicators to measure progress

Lia Florey, USAID

Lia Florey facilitated a discussion on this session's presentations. MERG members discussed the household indicator document revision, the language around the "universal coverage" and access indicators, and the alignment with WHO indicators in the World Malaria Report. Participants also discussed the status of the drafted facility data document and the usefulness of a harmonized resource on assessing quality of care at the facility.

WHO presents the proportion of population that has access to ITN or IRS; members agreed that it is useful to look at both combined, as a coupled indicator, mainly in case of refusals. MERG members agreed that access indicators and population indicators are both useful, however the access indicator is difficult to operationalize

Participants debated how countries with low parasite prevalence report survey data. HMIS is a better data source but WHO requires a threshold of completeness, population, species data and consistency of data since 2010, plus subnational data for three years to use HMIS data. Members hope that WHO's forthcoming SME manual will address both high and low burden settings.

Next step: Make edits to universal coverage indicator in revised HH survey document

Objective 5: Address RBM and MERG business issues

5.1 SMC Task Force: Progress and Future Plans

Eric Hubbard, CRS and Arantxa Roca-Feltrer, Malaria Consortium

Eric Hubbard presented on the ACCESS-SMC work that includes 7 countries in the Sahel. There is rapid scale up of targeted areas, both at the country level (i.e., additional areas being added within a country) and at the regional level (i.e., new countries incorporating SMC in their intervention packages). He noted that the context of the campaign is critical because the team has only 5 days to reach the maximum of children. He spoke about the importance of the partnership between health facilities and parents to ensure complete treatment, the key indicator being whether or not a child receives 3 doses. Currently in ACCESS SMC countries, the population has a preference for dispersible tablets, representing a shift from what has been used previously. Mr. Hubbard mentioned that the numbers presented underreport the real situation and that the team supports the entire HMIS system in order to effectively monitor clinical malaria cases, hospitalization, and deaths. The SMC task force

has finalized a Terms of Reference (TOR) and has identified priority work areas for the coming year.

5.2 IRS task force: Progress and future plans

Molly Robertson, PATH

During this discussion, MERG members talked about challenges with IRS implementation and monitoring, including people moving after having their houses sprayed or households not included in the original enumeration plan but found during the IRS campaign. There is a lack of behavioral data to measure and address these challenges and a need to define "structure" to facilitate data comparison between countries. The IRS task force has a draft TOR and will be examining issues such as monitoring use of IRS as a response in pre-elimination or elimination areas compared to monitoring in endemic areas.

Action Items

Work Area	Party Responsible
Finalize publication on population ITN access indicator	Hannah Koenker
Update HH survey indicators document to include VectorWorks references and language on population access indicator	Jui Shah, Cameron Taylor, Hannah Koenker
Draft statement for WHO GMP review on population ITN access indicator	Hannah Koenker, Ryan Williams, Abdisalan Noor, Jui Shah
Launch task force to develop guidance document on impact evaluations for lower burden settings	Yazoume Ye, Ruth Ashton
Re-launch RHIS Task Force	Michael Humes, Michael Hainsworth
Collate MERG feedback on GMP malaria module, operational plan, and corresponding guidance on data quality	Ryan Williams, Jui Shah
Finalize and publish facility data document	Abdisalan Noor, Jui Shah
Complete workplan for SMC Task Force	Eric Hubbard
Complete workplan for IRS Task Force	Molly Robertson