MEETING REPORT

Thirtieth Meeting of the RBM Partnership
Monitoring and Evaluation Reference Group (MERG)
5-7 June, 2019
Accra, Ghana

Acronyms

ACT	Artemisinin-Based Combination Therapy
CDC	Center for Disease Control and Prevention
DHIMS	District Health Information Management System
DHIS2	District Health Information Software 2
DHS	Demographic and Health Surveys
HBHI	High Burden High Impact
HMIS	Health Management Information System
IDSR	Infectious Disease Surveillance and Response
IPTp	Intermittent Preventive Treatment in Pregnancy
IRS	Indoor Residual Spraying
ITN	Insecticide Treated Nets
LLIN	Long-Lasting Insecticide-Treated Net
M&E	Monitoring & Evaluation
MAP	Malaria Atlas Program
MAPD	Malaria Action Program for Districts
MERG	Monitoring and Evaluation Reference Group
MIP	Malaria in Pregnancy
MPR	Malaria Program Review
NMCP	National Malaria Control Prevention
RBM	Roll Back Malaria
RDT	Rapid Diagnostic Test
RHIS	Routine Health Information Systems
SMC	Seasonal Malaria Chemoprevention
SME	Surveillance, Monitoring, and Evaluation
TPR	Test Positivity Rate
WHO	World Health Organization

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Meeting Objectives

1. Discuss malaria surveillance, monitoring, an evaluation (SME) progress and challenges in moderate and high-burden countries
2. Define measurement needs to monitor change in quality of malaria interventions
3. Share experiences, best practices, and lessons learned on using strategic information to improved quality of malaria programming
4. Examine developments in measuring progress along the malaria transmission continuum
5. Address RBM and MERG business issues

Meeting Notes

Objective 1: Discuss SME progress and challenges in moderate and high-burden countries

1.1 High burden, high impact: Progress Update
Ebenezer Baba, WHO

Ebenezer Baba provided an update on the WHO High Burden High Impact (HBHI) approach, which is a new effort by the WHO and RBM to accelerate progress toward GTS goals. This effort focuses on the highest burden countries and uses four response elements: political will, strategic information, improved guidance, and a coordinated national malaria response. Global and country-level partners will work with countries to develop country-led assessments, identify gaps, and develop action plans. This is a shift from a one-size-fits-all approach to the use of country specific data to improve targeting of interventions and maximize impact. Early lessons learned include significant prep work needed for country-led self-assessment, ensuring proper stakeholder mapping and engagement for a multi-sectoral response, and the need to factor health system architecture variation.

1.2 Current interventions implemented in high burden countries: Scale of projects, the Ghana example
Nana Yaw Peprah, Ghana NMCP

Nana Peprah provided an overview of the interventions currently implemented in Ghana, including long-lasting insecticide-treated net (LLIN) mass distributions, continuous LLIN distribution through ANC clinics and schools, seasonal malaria chemoprevention (SMC), and indoor residual spraying (IRS). Ghana's NMCP focuses on test, treat, and track. The NMCP selects each intervention by burden and deploys only one intervention at a time. They focus IRS in the highest burden areas; however, since 2018, it was only deployed in one region due to insufficient funds. Other interventions include social and behavioral change strategies and a recent distribution of a malaria vaccine (MosquirixTM). Mr. Peprah described the increase in overall coverage of interventions, with LLIN ownership, rising from 31% in 2008 to 73% in 2016, and increase in LLIN use from 33% in 2014 to 42% in 2016. Other interventions include SMC and IPTp. The increased coverage of interventions across Ghana has led to observed decreases in malaria related deaths, under-five malaria case fatality, and malaria related admission. Malaria related deaths fell from 2, 799 in 2012 to 428 in 2018. The number of under-five malaria cases and malaria related admissions also declined from 2012 to 2018.

1.3 Increased program coverage and trends in morbidity and mortality: Why malaria trends are not improving?
Yacouba Savadogo, Burkina Faso, NMCP

Yacouba Savadogo presented on the progress Burkina Faso has made in distributing malaria interventions. A high proportion of NMCP planned LLINs have been distributed and the coverage of IPTp and SMC have gradually increased, with plans to cover the entire country with SMC by 2019. Between 2013 and 2018, the malaria case-fatality rate has steadily dropped, however, malaria case

incidence has seen a significant increase. Mr. Savadogo related this increase with an increase access to health care, increase in diagnosis and treatment coverage, persistence of suspected cases, and data quality issues.

Further discussion revealed that persistence of suspected cases is mainly due to stockouts of RDTs and providers' non-compliance to the 3Ts (Test, Treat, and Track), resulting in a 7% increase of suspected cases not confirmed in 2018.

1.4 Technical Instruments Used in Measuring Coverage: Are they suitable?
    Ruth Ashton, MEASURE Evaluation

Ruth Ashton presented new evidence on estimating coverage from survey data, routine or program data, and key findings from the Improving Coverage Measurement (ICM) group. Ms. Ashton described new methods of estimating ACT coverage through modelling and improving ACT recall in surveys through the use of visual aids. She provided examples of utilizing phone surveys to estimate ITN coverage, which may be useful for regular monitoring in countries with continuous ITN distribution. To better estimate IPTp coverage, Ms. Ashton presented an alternative indicator, "missed IPTp opportunity", to address issues of quantifying doses received. Other issues presented include defining the denominator when using routine or program data. Recent findings from the Improving Coverage Measurement group include the recommendation of the use of medicine pill boards for use in nationally representative surveys, maternal reporting of care-seeking behavior for childhood illness found to be reliable, linking household survey and facility data can estimate quality of care at population level. Ms. Ashton encouraged taking steps to ensure survey questions maximize validity and clearly reporting denominators used for coverage estimates.

During the discussion it was added that it is important to include the correct photos of malaria ACTs and nets. It was further added that the IPTp indicators is difficult to quantify accurately because of relying on ANC registers, which cannot always link individual woman to doses receive. This indicator is also being looked at by PMI by comparing survey data and ANC visits.

1.5 Discussion on the main challenges faced by the NMCPs with regards to implementing interventions with sufficient quality
    Erin Eckert, PMI

Erin Eckert began the discussion with an overview of WHO's HBHI approach, the challenges Ghana and Burkina Faso face when implementing interventions, and their intervention coverage measurement challenges. The discussion continued with the NMCP use of multiple different interventions and which ones should be used where, when should each intervention be deployed, can multiple interventions be used at the same time and place, and whether multiple interventions are needed. The plenary group suggested that there are certain interventions that are needed everywhere (e.g., case management, surveillance, ITNs) and that other interventions may be used where needed (e.g., SMC). In addition, what level of coverage is needed to observe significant reductions in a country's malaria burden. In Senegal, they have used every intervention possible and were able to significantly reduce their burden but perhaps not programmatically feasible in the long run.

There was mention of malaria groups needing to be more aggressive and pursue the best mix of interventions. In terms of measurement, it was discussed that Ms. Ashton's presentation highlights that "we are not as sophisticated as we think we are" in surveys. Further discussion on variations in survey methods to capture data more frequently followed, as there is increased pressure to have high-quality data more frequently at lower levels. There was consensus that data at the lower levels is a complex challenge and will have to be investigated further.

Discussion then shifted to the persistent challenge of data quality and poor quality leading to unconfident data use. Recommendations were made to improve the credibility of the data through the triangulation of coverage measurements using multiple data sources (e.g., surveys and RHIS). The

plenary group also discussed issues of current unusable routine data and emphasized the need to push resources toward continuous development of RHIS in countries. Prior to looking at data quality, participants suggested that MERG first assess if what is being measured is correct. Current population estimates are based on outdated master facility lists and old census data and an improved validation process is needed to build better district estimates and improved population estimates. The Malaria Atlas Project is working to develop improved denominators by defining catchment areas to estimate the population, though estimates may be improved further. Other topics discussed include multi-sectoral response and the omission of other health sectors or areas and how they may affect malaria. Participants encouraged MERG to discuss how surveys can address heterogeneity by linking health facility survey data and routine data.

Objective 2: Define measurement needs to address quality of malaria interventions

2.1 Surveillance, monitoring and evaluation approaches to ensure quality measurement of key program indicators
Arantxa Roca-Feltrer, Malaria Consortium

Arantxa Roca-Feltrer's presentation focused on the need for high-quality data for key program indicators. She discussed quality data to inform case management so that facilities can provide high quality care to their clients. She then provided an overview of the information cycle to inform the creation of action plans, highlighting key approaches and steps within the information cycle, specifically closing the information loop with feedback mechanisms. Following, she described adapting the PRISM tool to the malaria context, with the goal of improving data quality and the different components to consider. She then concluded by recommending cultivating a culture of information use by engaging the right people at the right time.

Participants then inquired about identifying what the key indicators are for countries to use and how to address the different needs at different levels. The plenary group suggested that MERG needs to provide guidance on what to monitor to ensure action takes place and focus on what countries consider their priorities. The group also stated the importance of monitoring capacity at a local level to ensure quality data and expressed concern regarding the number of indicators. Participants then suggested the response should focus on each country's needs to determine what should be collected routinely, as not every indicator needs to be routinely collected, and then how to incorporate data elements that are needed into preexisting systems to not add extra burden to data collectors. Finally, participants discussed a 'use' indicator, to provide more reliable data on how information is used.

2.2 Do current SME systems address the NMCP needs: Experiences implementing continuous improvement and adaptive learning onto programs
Arantxa Roca-Feltrer, Malaria Consortium

During this presentation Arantxa Roca-Feltrer gave an overview of the Malaria Action Program for Districts (MAPD) program and M&E systems in Uganda, where their current strategic plan is coming to an end. Surveillance was one of the key interventions in the framework and MAPD supported 49 districts, focusing on support for passive case detection. SME activities were integrated into the routine practices at facilities which included monitoring quality of services, data quality assessments, and routine quality assurance activities. Strategies implemented were determined by different levels, i.e. facility or district, and key lessons learned included improving ownership of DHIS2 systems, looking at more data from quarterly reports, ensuring district level involvement, facilitating regular data review and use, sharing lessons learned and challenges between the different areas of implementation, and identifying priority areas for follow up.

Following, participants expressed concern around the decentralization process and challenges with quality and funding. Due to the large scale of the program, strong data sharing and best practices across

other implementing partners have been implemented through MAPD, where the technical working groups are key to encourage these practices. Participants also asked about malaria reference centers (MRCs) used in the MAPD program. The number of MRCs along with computer use at the centers has produced good data, which is attributable to training maintenance at the centers. Participants then asked about indicators for data use, which are possible to quantify and have realistic targets, but it is important to not aim for too many meeting and focus on quality use of meeting time. Important indicators to focus on are data use indicators related to quality of care and data.

2.3 Toward using malaria data in DHIS2: How can we confidently measure burden and progress? Overview of a desktop tool to assess malaria data quality
Anna Bowen, CDC

During this presentation, Anna Bowen provided an overview of how to use DHIS2 to improve data use by simplifying and harmonizing data and indicators. Datasets can often include many data elements, along with many categories, making it difficult to find the precise data element to correctly create the indicator needed for analysis. Ms. Bowen indicated that data could be more user friendly and this can be done by simplifying data to more easily identify trends. She then presented a DHIS2-based desktop review that can be done to assess malaria data quality. This can be used to define and standardize indicators, assess quality of malaria surveillance data in DHIS2, and determine corrective factors. Users can begin with the desktop review, then a field assessment of data aggregation and reporting, it can then be used to guide further investigations at the district level. The tool is still being developed and then they will work on packaging and then disseminating the tool.

The questions that followed addressed issues of data validation and data quality within the program. There are internal DHIS2 checkpoints to help with quality data entry, however they are not always implemented optimally, and changes are needed before implementing the program. Data quality can be monitored using an indicator to measure fidelity of transfer from paper forms to the electronic program. Then data can be validated by correcting counts using routine data and not modeled data.

2.4 Discussion on what questions do NMCPs need to answer regarding coverage and quality of interventions and what type of data would answer those questions
Michael Humes, PMI

Following the afternoon presentations, Michael Humes led a discussion regarding questions NMCPs need to answer for coverage and quality of interventions. IRS, SMC, LLINs, and case management interventions were discussed, however, time ran out before the group addressed malaria in pregnancy (MIP) and ITPp. The discussion on IRS focused on using survey data versus routine health information and issues with IRS indicators. The discussion began by participants considering using population-based survey (PBS) data or routine health data for IRS indicators. Participants expressed concerns that PBS data may not represent the entire population, however it could be useful in high transmission settings, to not add to routine data collection efforts. Areas could then move towards using routine health data as transmission lowers. Participants considered what can be done to help support NMCPs in taking on additional data elements in routine health systems, focusing on how to improve program coverage. Following, participants discussed improvements needed for the IRS indicators. Many agreed that there needs to be clarification for the indicator citing clearer definitions for numerators and denominators, especially if counting structures vs. households or if another element could be used to get more reliable estimates of coverage.

Next the group addressed SMC data and the best approach to monitor coverage of the intervention. The group suggested using cohort data while setting up routine health information systems, then mothers and those not included in the RHIS would be covered and could be incorporated once the RHIS is established. Cohorts can measure the efficacy of the intervention and any differences between the control. Once they are incorporated into the RHIS, they can still be followed as a passive surveillance cohort for continued monitoring.

The plenary group then addressed LLINs and participants proposed looking at other data sources, for instance community sources, that might capture data regarding ownership of nets, sleeping under a net, and if a person received care from a community health worker (CHW). These sources may not always be linked to higher levels and opportunities to tap into sources for measurement may be missed. The group then discussed other indicators to look at, for instance number of nights per week a person slept under a net, and net durability studies.

Finally, the plenary group moved on to discuss issues with case management data. The discussion opened with better representation for NMCPs in this intervention. Participants stated that there needs to be a better understanding of what sources would be most helpful to NMCPs and what data NMCPs need to answer their questions. Participants then discussed test positivity rate (TPR) for malaria and how there is often overreporting of cases. Group members mentioned some uncertainty whether this is due to data quality issues or if it is a practice issue. Ultimately, the group decided RHIS data needs to be translated into information that can be used by NMCPs to address this issue. Participants then tackled difficulty with denominators, where there is concern around defining suspected cases. Participants recommended looking at registers to better define denominators. However, the group expressed concern that incentives may cause issues in reporting severe malaria and that programs need to track referrals, to verify concurrence between hospital and facility numbers. Overall, it was determined that there is a pressing need for more realistic numbers and that overreporting is a barrier to moving forward.

Objective 3: Share experiences, best practices, and lessons learned on using strategic information to improve quality of malaria programming

3.1 HMIS Task Force: Landscape and recommendations of DQA Tools
Michael Hainsworth, PATH

Michael Hainsworth presented on existing DQA tools (e.g., WHO data quality review, MEASURE Evaluation routine data quality assessment tool). He explained that these tools are often too complex for routine data quality audits conducted by district and facility level staff and presents a need for interesting dashboards and familiar layouts. Mr. Hainsworth shared updates on a field-based routine DQA tool, which was tested in Senegal and Zambia. The taskforce is looking for volunteers to test the new tool and are looking for other DQA tools to consider, with plans to build a consensus on a single tool.

Following the presentation, there were questions regarding the time period being reviewed during the RDQA. Mr. Hainsworth clarified that the audit period typically overlaps with the main malaria transmission season and covers a 6-month timeframe, the RDQA is conducted 3 months after this period. He further elaborated that the data audits are not focused on systems process unless there is significant missing data, because of the peer audit aspect, there is disappointment among NMCP staff if the data is not reported accurately. The main goal is to provide feedback and improve accuracy, emphasizing that this should be a part of the supervision process. Another question was asked about any observed improvement after multiple rounds of using the RDQA tool. Mr. Hainsworth explained they haven't looked at trends across facilities yet but trends overall show consistent improvement. They will need too look at individual facilities.

3.2 SOP Task Force: Progress and future plans
Michael Hainsworth, PATH

Michael Hainsworth provided a brief update for the SOP task force. There is no significant progress since the last meeting, but the current action items include developing outlines for potential actions for decision makers, identifying types of actions related to indicators, referring to relevant parts of WHO SME manual for various groups, and guiding countries on how to modify surveillance across a country's evolving transmission settings. There was inquiry from the group regarding how this work may relate

to the current WHO GMP initiative, Data for Action. Mr. Hainsworth was not sure if what is being done in this task force is also being done by others. Data for Action will inform malaria specific dashboards but he's not sure at what levels (e.g., regional, district) it will focus on but the SOP task force is focused on lower levels. The task force will need to ensure alignment toward the district level and will need to adapt to country level context.

3.3 NMCP perspective in measurement and data improvement tools to improve quality of malaria interventions
Wahjib Mohammed, Ghana NMCP

Wahjib Mohammed described the malaria interventions and measurement sources used in Ghana. The first DQA was in 2009 and the results showed high verification errors and missing reports. Based on these results, Ghana developed an SOP for health information management to provide documentation on guidelines and responsibilities to improve data quality. Routine surveillance data verification using DHIMS lead to revisions of registers and feedback to regions and districts. For improved quality of malaria programming, Ghana NMCP developed, NETAPP, an app used for LLIN mass distribution, and KOBOCOLLECT, for LLIN point distribution. Wahjib described research conducted to investigate high malaria mortality in the northern region and increasing parasitemia in the eastern region to improve programming and strategize specific interventions.

There was discussion about the apps developed and how the apps were used, who conducted the data collection, and how quickly data is available. Mr. Mohammed explained that they traditionally use volunteers for LLIN mass distributions but because of the IT nature, they needed skilled people. The data collectors didn't face many challenges, except for internet connectivity. He further explained that the data wasn't available in real time due to connectivity issues and only essential data was being collected, such as the unique code for each household and household size. They were able to monitor what was happening daily to inform LLIN distribution and provide accountability throughout the process.

3.4 Discussion on tools available for SME and ownership of them by NMCPs
Arnaud Le Menach, CHAI

The discussion began with a focus on data quality for confidence in decision making and the benchmark for quality. Once the data quality benchmark is met, what types of decisions regarding malaria control interventions can be made. As malaria incidence decreases maybe the data quality threshold can be increased, requiring higher-quality data. Participants encouraged the MERG to think about what these different thresholds may look like along the transmission continuum. Participants further discussed improvements currently being made to DHIS 2, which will allow data quality audit information to be directly entered into the system for comparison.

A discussion regarding the use of standard indicators and data elements and if whether the number of indicators included in a RDQA may be adjusted based on the improvements of some indicators. For example, shifting the focus from household ITN ownership to IPTp indicators, after ITN ownership indicators were deemed high-quality. Participants suggested using a desk review to target indicators NMCPs can focus on to improve quality of review.

With all of the investments from funders into systems, there was discussion about how to measure the overall impact these investments have made to systems. There was a recommendation for the MERG to think about metrics to focus on change over time to show more clearly the successes at the systems level and provide evidence to better inform future investments.

The plenary group then pointed out that access to treatment (e.g., what proportion of those needing treatment were treated?) is a missing indicator and what proportion of missing malaria cases are our surveillance systems capturing. The plenary group encouraged MERG to think about a tool to assess this indicator. One proposed solution included the use of a population-based tool to get this data. Household surveys have good quality data on proportion that seek treatment but may be reaching a small

proportion of the population. Malaria has a point of care with facilities and matching HRP2 data with fever may be a potential metric for access.

Another topic the plenary group discussed was about the use of suspected and confirmed case indicators and what cutoff point to use. The group indicated a need for a fixed guideline requiring the count of suspected cases, otherwise, cases may be missed. Proportion of cases reported as clinical and confirmed. It was noted that our surveillance systems are evolving and having these two indicators allow us to match and the switch to a confirmed case indicator is based on the confidence we have on testing rates and how it matches the true picture on the ground.

Another suggestion by the plenary group was to encourage NMCPs to leverage successful platforms for their own use or including questions in data collection apps for other diseases.

Finally, the plenary group discussed the need for more NMCP participation at MERG meetings. Typically, the MERG has the capacity to fund a few NMCP staff to attend but it was suggested that other partners also fund NMCP members to attend to increase overall participation.

Objective 4: Examine developments in measuring progress along the malaria transmission continuum

4.1 Revisions to the core malaria questions in population-based surveys, updates from The DHS Program
Cameron Taylor, The DHS Program

Cameron Taylor, of the DHS program, provided an update on the DHS questionnaire review, which focused on data use. The review included input mainly from MAP, PMI, VectorWorks, and RBM SBCC. Suggestions received included adding month of year for using nets, testing for malaria, changing illness to fever, travel, finger/heel stick, net non-use, and ANC related revisions. The revisions have undergone two internal reviews and will then go to USAID in July. The changes will only impact DHS malaria data but they would like to harmonize with the MIS toolkit and will provide an update on this at the next MERG meeting.

The following discussion focused on content of revisions. Ms. Taylor pointed out that not much will change, there will likely be no deletions of existing questions. One suggestion was for an assessment to determine data use to better understand what information from the DHS malaria questions is in use and what could be potentially deleted. There was also discussion around harmonizing the MIS with the MICS, which can be tricky due to timing.

4.2 Assessing impact in low and moderate transmission settings
Ruth Ashton, Tulane MEASURE Evaluation and Debra Prosnitz, ICF/MEASURE Evaluation

At this session, Ruth Ashton and Debra Prosnitz, provided an overview of the framework they developed along with the Evaluation Task Force, that builds on existing guidance for high transmission settings. This framework can focus on evaluating national malaria programs in low, moderate, and heterogenous transmission settings. The document provides practical guidance for countries and includes common scenarios NMCPs may face and identifies whether a process or impact evaluation (or both) is best suited. The framework is not exhaustive but provides significant information to guide users when conducting evaluations and move past common challenges encountered.

In the following discussion, participants asked to clarify what benchmarks were used to define high and low transmission, which the framework defines according to the WHO categories where some categories overlap in numbers. Participants then encouraged cascading the manual down to NMCPs, which is a part of the role of the MERG, to present new guidance and information along to programs, especially at the sub-national level. There is growing interest around evaluations and this framework can play a complimentary role as a reference for the next malaria program review (MPR) and inform the next national malaria strategic plan development.

4.3 [Linking routine data with population based data to optimize measurement of progress along the malaria transmission continuum](#)
Punam Amratia, MAP

During this presentation, Punam Amratia, reviewed issues with routine health data, prevalence, and how to use a catchment model to define the denominator for the catchment population. This model assigns the probability that the people in the household will seek treatment at each possible health facility considering travel time, 'attractiveness' of the facility, and population surface in the catchment model. This is used to estimate the geospatial model and expected incidence at each health facility. Ms. Amratia then presented MAP's work in Haiti as an example of creating fine-scale annual incidence maps for malaria. They were able to map inferred movement paths for patients in high risk areas. The main outputs from these activities are incidence and sero-prevalence maps of an area.

During the discussion Ms. Amratia explained that they use the surface to show incidence and have developed a way to rank areas in order of high to low transmission, using NMCPs to get program data and then target operational units. Regarding data quality, Ms. Amratia explained that it depends on the scale of the data, for instance, at a global scale, quality doesn't matter as much, but if it is at a country scale it can matter more, however the model can account for data quality issues. Questions regarding how the model would be used in low transmission settings were also addressed, and each model is designed to fit the country needs and what data is available, where joint models can be helpful, and models may not require as much data as expected.

4.4 [NMCP's perspective on measuring progress along the continuum—What would they want to see?](#)
Thierry Franchard, Madagascar NMCP

During this presentation, Thierry Franchard, gave an overview of malaria control on Madagascar, pointing out that they have had recent peaks and have seen a continuing increase in malaria. Many strategies, like LLINs, have been implemented, however the country is not yet stable. They are experiencing problems with malaria mortality, data quality, and stratification in different ecological areas. In the new national malaria strategy plan for 2018-2022, the NMCP is moving towards malaria elimination by focusing on objectives at a district level. They plan to adapt the epidemiological stratification to the country to better understand the needs at each level and the strategies needed to reduce transmission. The NMCP is putting tools in place, like score cards and epidemiological reports, to strengthen decision making and focus on outcome and impact indicators to reach elimination. Their goal is to get all districts in the elimination phase and strengthen community systems, tools, and data analysis.

The following discussion touched on how they plan to approach a DHS and MIS at the district level. Mr. Franchard stated that to get to the elimination phase, they need to look at all districts, which can be challenging. They have also considered using modeled surfaces as data for decision making for a more country specific stratification, but this can be difficult to track trends. Participants also asked about community-based surveillance, which is being used to track availability of treatment through integrated community-based management. Data can be difficult to obtain though, because they are far from the facility and districts. Questions were then addressed regarding the need for capacity building and different interventions for transmission along the continuum, but Mr. Franchard indicated they are limited by the budget and will need to adapt the strategy to reflect this. Madagascar however is one of the first countries to monitor fevers in real time, which has been helpful data as they develop a weekly report to share data from their fever surveillance.

4.5 [Discussion on the way forward regarding potential tools and steps needed to embed those tools in NMCPs](#)
Thom Eisele, Tulane University

The discussion began with a brief presentation from Thom Eisele on possible metrics for measuring progress along the malaria transmission continuum. It was not a comprehensive list of metrics but

highlighted possible approaches for malaria beginning with high transmission (PfPR>25%) to low transmission (PfPR<5%). Participants discussed that household surveys and population-based survey data can be used to make geo-spatial models but become less relevant down the transmission continuum. Then, as transmission comes down, confirmed cases eventually come down, in which case good quality data and diagnostic standards are needed. Programs can then standardize data at the population level for lower transmission levels and compare it to smaller populations, adjusting for data quality. Finally, programs can move to case investigations based on case-based surveillance and stratification for elimination. Most countries will require different metrics for different measurements for their projects. It is important to determine if national programs and their partners have the resources needed to measure malaria along the continuum. The MERG can assist in addressing this.

Next MERG participants discussed how they can help in addressing these needs, for instance where should the focus be for interventions to bring down transmission. These interventions require a lot of investment from the country, but often there are limited resources. When these resources are spread out, there are modest results at best. MERG could play a role by documenting complementing specific tools for information and how tools were used to answer specific questions. As priorities shift, different audiences will require different tools, and it is important to capture the point where countries are making decisions and weighing costs. Capturing this information regarding methods and approaches would also be helpful.

Next the discussion moved toward surveillance specific issues, where most countries have two systems, routine health information system (RHIS) and an integrated disease surveillance and response (IDSR) system, that need good synergy to be effective. Participants discussed how programs should consider integrating malaria systems into other systems. The discussion then focused more on case surveillance and that this data can be useful as countries move into lower transmission levels and can be tracked through the community for elimination efforts. However, participants emphasized the need for RHIS, which can give daily malaria information and ensure people are not dying with the disease. They also determined, regardless of transmission level, RHIS is useful, but it is important to spread out the burden of cost.

The MERG group then touched on survey-based data and rethinking national sampling to tailor to different settings. There could be cheaper ways to approach surveillance through household surveys, but programs still need to know where transmission is happening to monitor program coverage. Ultimately, it was discussed that it is important to understand what questions programs want to answer and to then look at changes over prevalence and intervention coverage to balance what to do with the resources available.

The plenary then touched on entomological measurements and discussed, due to difficulty detecting sporozoites in mosquitos, it is more of a vector control metric than elimination metric. However, participants indicated information on vectors would be helpful to have as changes in biting behaviors help steer interventions and determine their efficacy.

Finally, the discussion came down to what the MERG can prioritize for better documentation tools, linking tools with specific questions, and what key questions need answered. One suggestion was when and where malaria surveys (i.e. MIS) should be done, which deepens on the country's needs and programs. Participants then examined improving efficacy of current malaria measurements and measuring the appropriate cases and subsequent treatments. Indicators exist for this, however there are none for treatment for severe cases and quality of management on a routine basis. The group then considered case fatality as a proxy measure to estimate the number of malaria admissions that die and the number that survive, which could also be used as a quality of care check. Subsequently, it was raised that it is important to be aware that there could be other causes of death outside of malaria for a malaria admission. It is then important to recognize when assumptions are made and to have forms that summarize outcomes and treatment to track causes of death and appropriately assign those resulting from malaria.

Participants expressed concern that there was not much the MERG can do for case management but work to improve referral systems to manage indicators. To close out the discussion, participants discussed the need to include private data where possible, so that all cases can be reported and tracked.

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Objective 5: Address RBM and MERG business issues

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5.1 SMC Task Force: Progress and future plans
Louise Maranda, Malaria Consortium

Louise Maranda presented on the SMC work in Burkina Faso, Chad, and Nigeria. There was difficulty conducting an impact analysis due to low DHIS2 data quality (No DHIS2 in Chad). To deal with data quality issues, there are plans to select sentinel sites and conduct an RDQA. Ms. Maranda described an issue with the enumeration process to properly evaluate the success of SMC campaigns and distinguishing between rural and urban environments. The next steps for the task force include developing strategies to improve access to urban settings and identify data points of interest. Discussion included suggestion of adding a fifth round of SMC, however, funding partners are unable to procure more than four rounds, currently. Developing an evidence base for the effectiveness of a fifth round may lead to WHO revisiting this recommendation.

5.2 IRS Task Force: Progress and future plans
Christelle Gogue, PATH

Christelle Gogue presented on the complexities of defining IRS coverage and the differences across countries and implementers. The objectives of the task force are to review the IRS M&E landscape and develop recommendations to interpret IRS coverage. The task force is open membership and the current members have drafted a framework document outline and is looking for input from other MERG members.

5.3 Update from other RBM Working Groups

Ebenezer Baba, Case Management Working Group

The Case Management WG recently held their annual meeting with excellent global representation. The working group is working on the development and sharing of tools and best practices, advocacy at the global and country levels, and coordination with other working groups and committees.

Gladys Tetteh, MIP Working Group

Gladys Tetteh presented the MiP WG priorities for 2019-2020, which include policy; advocacy; programmatic initiatives, products, and tools; research; and coordination. Ms. Tetteh described the MiP WG & MERG collaboration for the development of the MiP M&E brief, to be released soon.

Bolanle Olapeju, SBCC Working Group

For 2019, the SBCC WG will develop a standardized SBCC survey module, develop a CHW toolkit for integrated SBCC to support malaria control interventions, facilitate SBCC TA through CRSPC regional meetings, and seek out collaboration with other WGs.

Keziah Malm, Vector Control Working Group

The Vector Control WG recently held their annual meeting, to achieve dialogue around best-practice sharing, information dissemination, alignment of constituencies on challenges faced in malaria vector control, and networking. Ms. Malm asked MERG how working groups can collaborate to benefit programs and where can groups work better.

Multi-Sectoral Working Group

No members of the Multi-Sectoral Working group were available to present. However, the group discussed a few multi-sectoral related issues. The MERG discussed looking at the issue that malaria is not only a MOH problem, but stakeholders need to work across sectors. Participants also talked about brining in engineers to design structures that reduce breeding sites.

5.4 Review action items for MERG
Allison Schmale, MEASURE Evaluation

Work Area	Party Responsible
Photos of interventions: Guidance on Visual Aids	Cameron Taylor
Denominators and accurate estimates of population catchment sizes	Ruth Ashton and Christelle Gogue
MERG to provide recommendations for MIP denominators	Lia Florey
Agree on key data use indicators	HMIS/SOP Task Force
MERG to poll NMCPs to generate common questions and data needs for coverage and quality of interventions, including: • Creating tools and guidance Sources to help NMCPs	MERG Secretariat
Integrating DQA tools or other SME with existing system	HMIS Task Force
Benchmarks for data quality • Sub-national decision making based on routine data of varying quality Approaches to assessing quality	Evaluation Task Force
Including more NMCP participants, Cascading down MERG information to local programs, IPs, NGOs, etc…	MERG Secretariat; All MERG Participants
Measuring data elements that are usually not considered, including: • Access to care and treatment • Engaging the community in SME Severe malaria and mortality	TBD after communication with MIP and CM Working Groups
Supplementing large-scale national surveys, i.e. MIS, with other methods for measuring intervention coverage and malaria outcomes • Other approaches to capture coverage data between large surveys • Including: LQAS, telephone surveys, ANC-based surveillance, etc.. Recommendations on what works what doesn't work, is or isn't appropriate to meet needs	Arantxa Roca-Feltrer, Lia Florey, Thom Eisele, and Ruth Ashton to report back on what strategies are useful
Integrating private sector in measuring and capturing confirmed malaria cases	HMIS Task Force, included as a recommendation

Linking MERG and MERG Task Forces with other RBM Working Groups	MERG Secretariat

Items for Other RBM Working Groups

Item	Working Group
Guidance on IPTP data in Registers	MIP Working Group
Explore how other health sectors/areas might affect malaria	Multi-Sectoral Working Group
Severe mortality treatment quality measurement	Case Management Working Group
Linking MERG and MERG Task Forces with other RBM Working Groups	All RBM Working Groups