

**Malaria Indicator Survey Planning and implementation training workshop
Lusaka, Zambia 9 to 12 September 2008**



Background

The RBM Monitoring and Evaluation Group (MERG) has developed a set of tools to provide guidance to countries on conducting the Malaria Indicator Survey (MIS) to assess core household intervention coverage indicators. To support countries conduct such surveys, MERG organised a 4-day training workshop for Anglophone countries on “MIS Planning and Implementation” held from 9-12 September 2008 in Lusaka, Zambia.

Objectives of the workshop

Specific objectives of the mission were to:

- a) Build capacity of countries planning to conduct an MIS.
- b) Share experiences in countries where MIS have been conducted.

Participation

Participating countries included Ethiopia, the Gambia, Kenya, Liberia, Namibia, Sierra Leone, Rwanda, South Sudan, Tanzania Mainland, Tanzania Zanzibar, Uganda, Zambia, and Zimbabwe. The country teams were composed of one or two staff from the National Malaria Control Programme (NMCP) and a representative from the Central/National Statistics Office (CSOs). The RBM/MERG partners included CDC, HSSP, MACRO International, Malaria Consortium, PATH/MACEPA, SARN, WHO, and the World Bank.

The meeting was officially opened by the Honourable Minister of Health, Brigadier General Dr Brian Chituwo, MP. He noted improvements made in malaria control in Zambia and stressed on the importance of sustaining these efforts. The priority is increasing access to malaria control interventions and to have a focus on using evidence based decision making for which an MIS is a useful tool in providing benchmarks. The ultimate goal is elimination/eradication of malaria from our countries, especially in SADC. He gave the example of the Copperbelt where, in partnership with the mines, no malaria related death has been recorded in a long time.

To convince our partners about our achievements there is need for credible data. The Ministry of Health Zambia would soon be releasing results of the MIS 2008 which shows great improvements made. The results in parasitemia prevalence have decreased among other indicators and he hoped that their experiences would help other countries.

Methodology

The meeting was organized mainly in presentation format with discussion and sharing of country specific experiences. Group work was also used. At the end of each day, a facilitators meeting was held to discuss the outcome of the day and review the agenda for the following day. A post-mortem meeting was also held at the end of the workshop to define the conclusions and recommendations.

Outcomes

- a) The various sessions provided valuable experiences from Ethiopia, Kenya, Namibia, Mozambique, Zambia, and Zimbabwe. This information was appreciated by all participating countries.
- b) Key Issues discussed from the various components of MIS

The workshop reviewed the whole process of organizing and conducting to report writing and disseminating and using the results from an MIS. The following issues were discussed and shared.

Materials: A CD with templates and relevant information on the Malaria Indicator Survey was given to all participants. The CD is expected to facilitate preparations and conducting of MIS.

MIS Planning

Start of the planning: planning must start several months before training for field work begins. Obtaining agreement within the MoH and local partnership requires time too.

Partnership involvement and meetings: Once the MOH decides to conduct an MIS, all stakeholders and implementing partners in malaria and CSOs should be co-opted into the process as soon as possible.

MIS Coordinating Team: A MIS Core Team must be formed. The team should be as inclusive as possible and effective. The team must hold regular meetings and it should determine the key indicators for use by the CSO in sampling.

Protocol Development: The Core team should develop an MIS protocol which will be submitted for ethical approval to the appropriate national body at minimum. A sample protocol has been included in the materials for use by countries. The core team should ensure that a full discussion on survey procedures is organized. A point person/consultant responsible for the day-to-day running of MIS operations must be appointed.

Obtaining Ethical Clearance: Once the protocol is developed a small group should take charge of the ethical clearance issues as work continues on the various aspects of MIS preparations. For clearance purposes such an endeavour should be classified as an evaluation of a programme rather than when it is classified as a research.

Developing a sampling frame with PDAs and GPS: a lengthy debate was held on the use of paper-based surveys vs PDA/GPS surveys. The participants of the workshop reiterated that the use of PDA and GPS is the future in Malaria Indicator Surveys, other surveys and routine data collection activities such as surveillance and programme supervision. However, there is need for standardizing the software and building capacity in programming of PDAs. The NMCP/MoH and CSO should nurture a close relation on MIS, since the support from the CSOs will be required from conception to report writing. Countries planning MIS should make the necessary changes to the questionnaires and software including pre-testing the PDAs to reduce errors well in advance of training of enumerators. Finally the choice to use paper or PDAs should be done well in advance in order to determine the logistical requirements.

Working with the CSOs on sampling and maps: When planning an MIS the programming of PDAs will need to think about how the system used fits into the country's CSO system. NMCPs should also bear in mind that data may be warehoused in the CSO at the end. Whether data is in the public access domain depends on the system in the country. CSO will help provide sampling frames created for DHS surveys and the advice is to use the known CSO sampling frame. Thus there is need to create a robust working relationship with CSOs in order to get the best out them. Domains of interest must be included such as rural/urban, malaria endemic zones, pregnant women and U5s. If there is no sampling frame or if it is too old the NMCP should work with CSO to create one. Work with CSO to create one.

Logistics and Procurement: A sample sheet for calculation of logistics requirements is provided. Most of MIS logistics need enough lead time for procurement. Logistical roles and technical roles are efficient if they are separated. Different individuals should be responsible for these two things.

Budgeting for a MIS

A sample budget sheet is provided on CD in Excel format. The NMCPs have been advised to try it out. Programmes will find that an MIS is not an inexpensive activity and enough resources should be planned for it. A budgeted protocol that would define the funding must be prepared. Countries should not try to fit an MIS into an amount of money, but should prepare a budget for all the requirements. With the budgeted protocol, the necessary resources should be sought from all possible source of funding: grants, local partners, government, etc.

Parasitemia and anemia testing - who should be tested and treatment guidelines

The interview questions must be formulated in a certain way to obtain the right parasitemia and anaemia data. For parasitemia, experience shows that countries have measured parasitemia for under fives, under sixes, under nines and in Ethiopia they tested for parasitemia in all under sixes but also in one out of four households. RDTs are used in the MIS for the sole purpose of treating positive cases. However, most blood related information is measured from the slides. For anaemia, only children are

tested. It is however noted that in low endemic countries the measurement of anaemia is not useful.

Questionnaires: overview and country specificities: Two questionnaires are used: household and women's questionnaire. Questionnaire templates developed by MERG have carefully been developed and the team reviewing the questions should be careful not to remove any that may look unimportant but key to the survey. Questionnaire design should be the task of the MIS Core Team. CSO can be consulted for advice on this. However, country specific adjustments remain possible.

Working with PDAs and GPS: it is recommended that PDA specifications should be standardized or that a list of recommended PDAs for this purpose be provided. The advantages of PDAs is that they minimize data collection errors by enumerators and hasten data entry. Also, the specifications of the PDA and GPS of choice must be shared to get the most appropriate models on the market. A testing must be done of these equipment several days prior to the actual survey. Correcting the PDA programme during the field work is discouraged. It could develop many bugs that would not be fixed during the survey.

Selecting and training data collectors: Because the MIS includes a blood collection component, experience has shown that including trained health workers who routinely collect blood in their work is a must. This is in line with ethical clearance requirements. Also enough time must be allowed between the invitation and the training session. The selection of the enumerator must take into account the language of the local communities where the data collection is going to take place. It is better to have longer training than shorter. Five days for the training and an extra two days of field pre-testing has worked in the past. An extra day must be allowed for feedback from the field experience.

Supervising and troubleshooting field work: Supervision is of critical importance for the MIS. Supervisors should get more training than the enumerators in order for them to perform the necessary supervisory role for the MIS. The supervisors could be selected and trained before the main training. The initial and last days of MIS are most critical for supervision.

Analysing data and writing the report: Capacity for data cleaning, weighting and analysis from the MIS dataset is not readily available within the NMCP and the involvement of the CSOs may remedy this problem. Analysis should be weighted and sampling frame considerations must be used. This a long process that requires the use of experts. Further analysis of the MIS results is also possible and a separate report could be written. NMCPs should also report on the process and experiences.

Disseminating the MIS results and using the media: Communication = information + presentation. This is a critical step in the MIS. It is advised that a strong communication strategy be developed that would include the media. The latter are key to the dissemination of the results and report. This would curtail any misinformation or negative comments on the report. After the report is produced a communicator should be used to present the results of the survey for the target audience.

Using the MIS results for future planning: After the report is done the MIS Core team should organize meetings to review all the indicators and discuss the implications on the future of malaria control in the country. This information could be used to review the strategic plan and other future initiatives in malaria control.

Conclusions

The Lusaka workshop was considered to be very successful in terms of content and structure. There was an added value for including the CSOs as part of the country teams. The mix of countries with and without MIS experience was also very useful. The participants left the workshop feeling that they had a better understanding of how a MIS should be planned and implemented. For the countries having done MIS, the results were used to improve the performance of their indicators, review their programme and also their strategic plans.

Recommendations for follow up to the workshops

- a) Capacity for programming was seen as a critical need. After the Dakar (francophone meeting) RBM needs to mobilize software programmers and build capacity for programming of PDAs for MIS.
- b) Several countries are planning MIS in East, Southern and West Africa. There is need to follow up on planning of the MIS in these countries.
- c) The number of countries who will be conducting MIS in the next 18 months is likely to rise. RBM and its partners should devise a way of organizing technical assistance for these countries by using the strengths of all partners in the MERG and elsewhere.
- d) The francophone workshop should include a French version of some of the Lusaka presentations. Also to allow good preparations for future workshops, facilitators are encouraged to arrive two days in advance.
- e) Workshops of the same nature must be planned for the remaining countries. This will require substantial funding from the RBM partnership.
- f) RBM should promote the collaboration between the CSOs and the NMCPs to obtain well coordinated MIS.