The response to combating malaria in the Greater Mekong Sub-region (GMS) has been impressive, however, many challenges remain. Tackling the spread of artemisinin resistance amongst mobile and migrant populations is a key piece of this increasingly complex puzzle. Mobile and migrant populations (MMP) are frequently “hidden” and difficult to access because of geographical, language and cultural barriers. While some information gaps exist, much has been learned in addressing malaria among these groups in recent years. This report describes the actions to be done to control malaria among mobile and migrant workers and other high-risk groups in the GMS, to monitor progress and evaluate the impact of interventions.
Emergency Response to Artemisinin Resistance in the Greater Mekong Sub-region


Report of an informal consultation
19–23 August, 2014
Phuket, Thailand
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Acronyms

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<tr>
<td>ACD</td>
<td>active case detection</td>
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<td>ADB</td>
<td>Asian Development Bank</td>
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<td>APLMA</td>
<td>Asia–Pacific Leaders’ Malaria Alliance</td>
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<td>APMEN</td>
<td>The Asia Pacific Malaria Elimination Network</td>
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<td>AR</td>
<td>artemisinin resistance</td>
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<td>BCC</td>
<td>behaviour change communication</td>
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<td>DFAT</td>
<td>Department of Foreign Affairs and Trade, Australian Government</td>
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<td>DOT</td>
<td>directly-observed treatment</td>
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<td>ERAR</td>
<td>emergency response to artemisinin resistance</td>
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<td>FSAT</td>
<td>focused screening and treatment</td>
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<td>GF</td>
<td>Global Fund</td>
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<td>GMS</td>
<td>Greater Mekong subregion</td>
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<td>HC</td>
<td>health centre</td>
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<td>HF</td>
<td>health facility</td>
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<td>ICC</td>
<td>intercountry component</td>
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<td>information exchange communication</td>
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<td>IPC</td>
<td>interpersonal communication</td>
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<td>JICA</td>
<td>Japan International Cooperation Agency</td>
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<td>LLIN</td>
<td>long-lasting insecticidal nets</td>
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<td>3MDG</td>
<td>The Three Millennium Development Goal Fund</td>
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<td>MDA</td>
<td>mass drug administration</td>
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<td>M&amp;E</td>
<td>monitoring and evaluation</td>
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<td>mobile and migrant population</td>
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<td>MOP</td>
<td>malaria operational plan</td>
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<td>mobile malaria worker</td>
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<td>national malaria control programme</td>
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<td>positive deviance</td>
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<td>Acronym</td>
<td>Full Form</td>
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<td>PH</td>
<td>public health</td>
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<td>President's Malaria Initiative</td>
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<td>PS</td>
<td>private sector</td>
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<td>RAI</td>
<td>Regional Artemisinin Initiative</td>
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<td>RDT</td>
<td>rapid diagnostic test</td>
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<td>RSC</td>
<td>Regional Steering Committee (for the GF RAI)</td>
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<td>surveillance, monitoring and evaluation</td>
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<td>standard operating procedures</td>
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<td>Technical working group</td>
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<td>TES</td>
<td>therapeutic efficacy studies</td>
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<td>VMW</td>
<td>village malaria worker</td>
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Executive summary

The Informal Consultation on the Action Plan for Mobile and Migrant Populations and Development of a draft M&E Strategy and Communications Strategy for the Greater Mekong subregion (GMS) Emergency Response to Artemisinin Resistance (ERAR) follows a series of recent meetings conducted by WHO to ramp up the response to artemisinin resistance (AR) in GMS. AR in GMS is recognized as a global threat to the control and elimination of malaria. Development partners in GMS have committed to joining forces for a more targeted and effective response to this growing threat. Rapid development including large-scale infrastructure projects combined with the opening of new economic zones across the region together culminate in large-scale population movements which have the potential for resulting in both the emergence and spread of AR across and beyond the GMS.

The response to combating malaria in GMS has been impressive; however, many challenges remain and time is running out. Tackling the spread of AR amongst mobile and migrant populations (MMP) is a key piece of this increasingly complex puzzle. However, reaching these populations remains a significant challenge for a number of reasons. MMP are frequently “hidden” and difficult to access because of geographical, language and cultural barriers. In addition, their movement patterns are constantly changing and they frequently move between high and low endemic areas without access to quality diagnosis and treatment, thus making them vulnerable to malaria and increasing the chances of transmission. However, MMP also belong to static communities for varying periods of time and therefore, it is critical to bear in mind the needs of both static and mobile and migrant communities when developing tools and strategies to best serve these populations. An effective response requires tailored quality malaria prevention strategies, appropriate treatment, improved collaboration and even greater political commitment.

Even more importantly, reaching MMP requires a regional response. No country can hope to combat malaria alone, as borders are increasingly porous and the movements of people back and forth across multiple borders calls for a collaborative regional response. While many efforts have already been made to harmonize prevention messages and treatment strategies (where appropriate) such as the bilingual patient card and the “twin cities” approach, many challenges remain.

Key challenges and recommendations

The following key challenges were identified:

- support for capacity-building and strengthening for country programmes a priority for data collection and analysis in most countries;.
- support for surveillance, monitoring and evaluation (SME) training for staff at district, provincial and national levels; ongoing SME assessment to inform training/technical assistance plan development based on specific areas of needs.

- develop standard operating procedures (SOP) for cross-border surveillance and response;

- assess how mHealth can be better used to reach remote or isolated communities and feed into a real time reporting system using SMS;

- more financial resources needed for procuring appropriate equipment for SME such as laptops, servers, internet connectivity, telephones, fax machines;

- more collaboration/agreement needed between countries on the type of data that can be shared in real time and other mechanisms including SME–TWG and intercountry consultations among M&E focal points should be explored; and

- engage policy-makers more effectively, particularly in border areas.

**For donors**

Countries called for greater donor coordination, particularly in terms of how donors support malaria programmes. A one-package intervention strategy is far preferable to a mix of different interventions supported by different donors which can be complex to manage and track. There is also a greater likelihood of gaps in funding, affecting programme implementation schedules and inhibiting a timely response as well as reporting.

In addition to improved donor coordination, countries also requested more flexibility of funding in order to enable implementers to respond to a rapidly changing environment.

**For implementers**

Donors recognized the importance of funding flexibility, but also requested that implementers understand that this requires mutual accountability. Programmes also need to ensure that reporting is occurring in a timely fashion and that they are clearly communicating their needs to donors with a list of budgeted priority activities.

**Recommendations for behaviour change communication (BCC)/information exchange communication (IEC)**

1. Solid planning must inform behaviour change communication interventions so that messages are targeted to key audiences, activities are founded on
behavioural theories and formative research, and enough commodities are available to meet the demand generated in the population.

(2) Research will help to adapt messages and approaches to reduce audience fatigue and to promote new interventions.

(3) More high-quality data is needed on the effectiveness of BCC interventions, especially as transmission dynamics change in an elimination setting.

(4) Rigorous evaluations of BCC interventions are needed to increase the evidence base across different transmission settings.

For donors

- Investment in high-quality malaria BCC is good practice, and should be an integral component of the containment of artemisinin resistance and malaria elimination strategies from the start.

- By supporting the use of BCC and research on its effectiveness, donors can be assured of a much stronger return on their investments in the containment of AR and malaria elimination.
1. **Opening session**

Dr Yonas Tegegn, WHO Representative for Thailand welcomed participants to the meeting and placed the consultation within the context of previous meetings and existing developments of the emergency response to artemisinin resistance (ERAR) in the GMS. The WHO Representative referenced previous ERAR meetings on MMP in Yangon and Hanoi including meetings with the armed forces medical departments in Da Nang, organized by Global Fund Regional Steering Committee (RSC) for Regional Artemisinin Initiative (RAI) and in Phnom Penh by US Pacific Command as well as the malaria WHO-RBM led consultations on Global Technical Strategy (GTS) and Global Malaria Action Plan II in New Delhi and Manila. He then reminded participants that the focus of the current informal consultation was to engage in further discussion in the context of ERAR and specifically to:

- discuss the action plan for MMP;
- develop a draft surveillance, M&E strategy; and
- develop a communications strategy for GMS countries in terms of AR.

He reiterated WHO’s distinct objective of addressing issues concerning MMP. Likewise, GF has given MMP and cross-border issues the highest priority in its Regional Artemisinin Initiative (RAI) intercountry component (ICC). In order to achieve these objectives, partnership between all key players, including donors, continues to be required. He reinforced the need to strengthen existing systems of malaria SME as well as developing a regional strategy on SM&E for ERAR as this will provide guidance on standardized procedures and facilitate effective coordination of SME strengthening efforts, including sharing of best practices to track progress and provide information for an appropriate response. In conclusion, he underlined the commitment of the WHO ERAR project to work with Member States in GMS, with all relevant stakeholders and partners to ensure country priorities and needs are highlighted and efforts through both technical assistance and advocacy are exerted to leverage resources through WHO’s mandate to assist Member States.

Dr Bayo Fatunmbi, M&E Officer, WHO ERAR, thanked the Bill and Melinda Gates Foundation for their ongoing support. He thanked all partners for their active participation in ERAR, which, he reminded participants, was the collective responsibility of all Member States. As such, ERAR is not a WHO project, but is run by the Member States and supported by WHO which acts as the custodian responsible for coordination and technical assistance. He reminded participants of the history of the ERAR hub, which emerged as a result of country assessments that had taken place in 2010 and resulted in the recommendation for a regional response to AR. A key priority for ERAR is to develop tools that countries can download and use to guide the development of the various action plans. He confirmed the need for increased funding as identified in the gap analysis completed in 2012 that revealed a gap of
about US$ 500 million. Development partners have helped to fill this gap but there is still a gap of around US$ 400 million plus remaining. As such, he acknowledged the importance of the presence of the donor partners at the current meeting and called on all participants to forge a commitment to support the action plan that was to be developed during the meeting.

2. **Migrant and mobile populations (MMP): Progress and objectives**

Dr Deyer Gopinath, Medical Officer, Malaria and Border Health, Emergency Response to Artemisinin Resistance (ERAR-GMS), WHO Country Office for Thailand, provided participants with an update of GMS migration and mobility issues beginning with an overview of the wide spectrum of MMP and the different ways that countries define and respond to migrants. There is no standard definition utilized in the region as the definitions vary according to the source of information and whether the definitions are specific to malaria (such as in Cambodia and Myanmar). Regardless of definitions, the key objective is to focus on the commonalities, particularly in terms of movement and inherent risk factors for malaria. He then reviewed the current drivers of malaria transmission.

1. Infrastructure and rural development are causing substantial internal and cross-border movement, often resulting in displacement or relocation of villagers which has implications for malaria transmission.

2. Deforestation for logging and farming, particularly for cash crops, rubber plantations and related movement patterns of migrant workers engaged in such activities are becoming clearer which is beneficial for future programming.

3. National development plans result in population movements and land clearance.

4. Political conflict frequently results in large-scale population movements and can also inhibit access to areas in conflict zones controlled by government or non-state actors.

The overall burden of disease in GMS countries is amongst MMP as malaria is found mostly along the border areas and in forested areas. However, it is important to look forward when developing action plans as these areas that are currently remote will be much more accessible within a couple of years, given the rapid pace of development. In addition, the development of road and rail links such as the trans-Asia railway, trans-Asian highway and Singapore–Kunming Rail Link, will facilitate a rapid increase in the numbers of people moving along these routes. All malaria control or elimination programmes need to take these transport routes into account. In addition, air travel is also another conduit for malaria transmission across countries.
and continents. With such an increase in movement, populations at risk now include not only MMP, but also static populations.

Sometimes, there is disagreement about the most desirable approach to malaria control, with some giving priority to improved mapping and surveillance, and others promoting a greater focus on access to health services. Yet another approach is to look at malaria from a district perspective and to better understand how the epidemiology changes in a particular location as a result of large-scale development projects. It was pointed out that while development is not inherently negative, there is a need to better understand how malaria moves and what the risks are; for example, whether transmission levels are higher during the construction phase or the land clearing stage. Overall, a better understanding of the different phases is required and the consequent implications for malaria transmission.

A number of important questions that remain are listed below.

1. Are we looking at development and land use change over time as we extend our malaria control and elimination programmes? It is important to consider not just MMP, but to pay closer attention to the actual risk in terms of timing, duration and so on.

2. How are the strategies and programmes on each side of the border interacting and communicating at the village level? Do we understand how to respond appropriately, so that there is effective communication and follow-up?

3. Are programmes stigmatizing migrant workers or looking at them as part of the communities they belong to? We need to understand these broader dynamics between different groups of people i.e. between MMP and static communities.

The challenge is for countries to take into consideration what is happening on the opposite side of the border, assess if they are doing enough and articulate what they would like to see happening. ERAR has supported countries with a 1–2 day workshop following the biregional meetings in Yangon and Hanoi that took place in April and June 2014 to fine-tune ideas and plans and improve partner-mapping. Support has also been provided to help with the preliminary costing for these activities. Participants were reminded that the objective of the current meeting was to get buy-in from partners and commitments in the lead-up to the Global Fund RSC meeting to be held on 29 September 2014 in Yangon when ERAR will present the action plan.

3. **Prioritization of MMP and cross-border funding**

Participants identified the priority areas for MMP and cross-border funding activities and the donor partners made comments on the way forward. Mr Robert Bennoun, Strategic Adviser-Programme Development, The Three Millennium Development
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Goal Fund (3MDG), said that donor coordination, particularly between the GF, bilateral agencies, Asian Development Bank (ADB) and others, was a priority. The 3MDG is more programmatically supportive of national malaria programmes and gives priority to the following:

- more focus on flexible funding for implementing arrangements;
- fewer time restrictions for funding; and
- more flexibility in reaching MMP in terms of how contracts are managed and funded.

Previously under 3MDG, mapping was funded, but this was found to be of limited value, so there is a recognized need for caution about mapping migration patterns in and of themselves, although it is still important to understand where the vulnerability is, particularly at sub-national levels.

Dr Faisal Mansoor, Head of Programme Unit, Principal Recipient for The Global Fund To Fight AIDS, Tuberculosis and Malaria (GF), Yangon, Myanmar presented an update on the status of activities under the GF RAI malaria programme, implementation of the national grants under the GF new funding mechanism (NFM) and RAI grants for Cambodia, Myanmar, Lao People’s Democratic Republic and Thailand began on 1 January 2014. The total programme funding of US$ 100 million was divided as follows: 15% for RAI; 15% for Cambodia; 5% for Lao People’s Democratic Republic; 40% for Myanmar; 10% for Thailand; and 15% for Vietnam. Partners were informed that funding is available for reprogramming in 2015–2016 and encouraged to come up with strategic and action-oriented recommendations. Such recommendations will feed into the next GF RSC meeting and help to determine the future course of how countries will operate for 2015–2016. Programmes under the ICC, (US$ 15 million of the US$ 100 million) on the Thailand–Myanmar border started on 1 July 2014. Other countries were encouraged to give thought to the ICC component, particularly for cross-border initiatives that have not been budgeted for or planned.

Mr Mark M. Fukuda, CDC Malaria Adviser, President’s Malaria Initiative (PMI), Greater Mekong Subregion, US Agency for International Development/Regional Development Mission Asia, Bangkok, Thailand, informed that their regional malaria activities, initially managed from the Bangkok office, were being pushed down to country level, for more efficient management.

PMI is striving to work in coordination with other donors in order to reduce the burden on implementers. PMI wanted to reprogramme funds to fill the gaps articulated by national programmes as well as in collaboration with other donors during the programming cycle for 2014–2015. The articulation of country priorities helped donors to understand and coordinate better to respond to these prioritized needs.
Mr Mya Sapai Ngon, Health Programme Manager, US Agency for International Development, Yangon, Myanmar, added that PMI had intensified support to Myanmar since 2012 when the USAID mission reopened. It was supporting the national strategy and assessing how gaps could be bridged. PMI’s activities in Myanmar involved technical support to country programmes through community-based activities, as well as control and prevention. Several partners of PMI such as the US Pharmacopeia, worked at national levels to provide technical assistance to the national government. MMP are one of the priority groups to support in the national strategy. PMI also supported Control and Prevention of Malaria (CAP Malaria) at the country level with GF and the Japan International Cooperation Agency (JICA) and engaged in frequent communication to enable a flexible approach and dialogue with national programmes. PMI welcomed opportunities to provide support on MMP and cross-border activities.

Mr Royce Escolar, Senior Programme Manager, Australian Government, Department of Foreign Affairs and Trade (DFAT), said that significant changes took place within the Australian Government in late 2013 when AusAID was integrated with the DFAT. In June 2014, a new aid policy was announced and with that, DFAT had been tasked with continuing its focus on poverty reduction, private sector engagement and related human capital aspects in the Indo–Pacific region. The malaria commitments of the Australian Government will continue through GF in Myanmar, 3MDG and the Asia Pacific Malaria Elimination Network (APMEN). Australia is already providing substantial support, engaged in many activities and committed to increasing involvement. Although the Australian aid budget has been frozen, DFAT has a high-level commitment to continuing malaria funding for elimination. The inputs on funding and technical gaps provided by the countries was a positive process, as DFAT viewed it as a country-owned process and encouraged countries to own and identify their own gaps and solutions to these problems.

Sustainability is also a big focus of Australia’s new aid policy. Traditional assistance is becoming smaller and the focus is more on how to sustain activities with partner government funding and also increase engagement with the private sector. DFAT found the meeting a useful forum for gathering important information, which would be reported to colleagues at the global level. By weighing priorities with justifications and evidence that certain impacts will be achieved, the limited resources available could be optimally utilized. Aid effectiveness remains an important issue for DFAT and M&E will continue to be very important for deciding on the reallocation of resources.

Asia–Pacific Leaders Malaria Alliance (APLMA) is based at the Asian Development Bank (ADB) but is a separate entity. It has been fortunate to receive support from DFAT as well as the UK government and others. It is able to play a unique role in this process. The two APLMA task forces are: (1) financing (assessing funding available at national and external levels); and (2) quality of medicines (focused on AR, elimination, and quality medicines and halting monotherapies). These task forces came up with a set of recommendations, one of which included
addressing the issue of MMP. Therefore, the current forum to identify priorities and especially the twin cities information-sharing component were very welcome and it was also positive to see that screening and other activities are in place, although other areas required additional support. For example, BCC should parallel all of these activities. Partners have a good opportunity to move forward and deal with this and APLMA can play a unique role in collaboration with WHO and all other partners present. There is a Regional Malaria Communicable Disease Trust Fund and APLMA hopes to aid in implementation there. APLMA wants to encourage prioritization and costing, as this will help everyone at the GF RSC September meeting to see where things stand and what should be done next.

**Discussion points**

**Continuation of GF resources for malaria in the region:** As GF resources have been significantly reduced across the region, an INGO partner raised the question of what plans GF was making for helping programmes adjust to the reductions in malaria funding at country level.

The UNOPS Representative was unable to respond from the GF perspective, but pointed out that many activities that had been budgeted under the RAI had not been able to take place. As a result, significant resources from the RAI budget were available and there was a GF commitment for all country components to continue.

**Support from other donors to fill the funding gaps:** An INGO partner stated that 80–90% of core funding for malaria activities had previously come from GF and other donors had built their strategies on the assumption that this core funding would be available. In view of the GF cuts, how would different donors for the region fill these wide funding gaps?

**Donor responses**

PMI recognizes the changing situation in the region and the subsequent need for better figures, which are lacking. Countries are at different stages and doing things differently as they move towards elimination. It is important for all partners to continue to dialogue as a team and build a full expression of needs to see how they can best be addressed. It will be important to have a better understanding of the resources required – qualitatively and quantitatively to determine the total need/cost.

DFAT recognized the limitations – not only in malaria, but even HIV and noncommunicable diseases. The limitation is that for some countries, it did not have a health focus, so was trying to mitigate the malaria risk by supporting regional programmes. It is in the process of reviewing its health portfolio at global, regional and country levels and the case is being made that the Australian government should continue to support health programmes in the GMS region. This document will shortly be presented to senior staff at DFAT. The Regional Office needs to continue...
to provide the rationale of support by providing evidence of the impact of interventions, so that such information can be fed into high-level decision-making.

**Flexibility of funding**

An INGO from Cambodia called upon donors to ensure that flexibility of funding was embedded in their contractual approach for supporting malaria initiatives. Flexibility of funding enables a better response to the needs of MMP communities in real time. The example of net procurement was given. When funding is provided for nets, it is unable to be used for anything else, regardless of the changing situation where nets alone are no longer sufficient for MMP because of the changes in vector biting times. Donors were asked to consider other interventions that they could support. As countries move towards pre-elimination and elimination, the concern is that the tools for diagnosis are not adequate for catching asymptomatic cases and alternative approaches are required.

**Donor coordination**

On the issue of donor coordination, all countries gave input on the current gaps and how donors could assist in helping to fill these gaps.

**Cambodia**

Funds for malaria in Cambodia are shrinking while AR is high and getting worse. The current ACT has failed in five provinces at a rate of more than 40% and as yet, there is no alternative drug and nothing new in the pipeline. The efficacy of mefloquine is also questionable. As the situation worsens, the need to eliminate *Plasmodium falciparum* in the country is intensified, but the challenge is high. With low case numbers, real time follow-up is needed. Cambodia would like to see funding come from other donors beyond the GF. Over the next three years, Cambodia needs an additional US$ 20 million per annum. Donors have been helping to fill these gaps, but ideally they should work more closely together to integrate support into one fund to fill the gaps and reduce overlap of funding activities. Donors could consult with all countries to see how much funding they need each year and how this could be fulfilled.

**China**

At the national level, China is committed to working on addressing the needs of MMP. In addition, AR is a concern of the government and the China/Myanmar border is a key focus. However, the challenges are that these issues are international and require both country governments to be involved as well as donors and NGOs. International donors and organizations can help a lot facilitating this process.
Lao People’s Democratic Republic

Participants were informed that according to the MMP action plan, Lao People’s Democratic Republic had six areas of focus and should have a one-package approach. The current malaria budget is US$ 600,000 and does not include bed nets, but treatment only. To be successful, a single package of interventions at national programme level should be developed. Initially, donors divided the support by area and it was easy to see which donors were willing to support what and assess the effectiveness. However, now what is needed is stronger and more unified support from donors. Lao People’s Democratic Republic also needs more help with programme management as currently, even vector control takes months to complete with the process of procurement, reaching patients etc. Another issue is tackling hot spots in rural areas and how to best use the RAI funding to combat this situation, particularly because of shared borders with Thailand. In essence, the complete package is needed to address all of these challenges. Regarding cross-border interventions, each country needs to work well together at the regional level. Lao People’s Democratic Republic Thailand and have agreed that a package approach should be used for implementation, not just single interventions.

Myanmar

The country is on track for elimination helped by the strong coordination between all partners. Since 2011, Myanmar has received a lot of support from donors and has been very successful with the different programmes supported by GF and others. However, gaps still remain, particularly with migration and cross-border issues and AR. The GF has committed support to 2016, but commitment beyond 2016 is necessary, if targets are to be achieved. Equally, improved collaboration with China and Thailand on cross-border activities for migration is also important.

Viet Nam

Country priorities have already been identified for cross-border MMP during the WHO workshops held earlier in the year. GF money is very limited at US$ 7.6 million for two years. This is not enough and Viet Nam wants to eliminate malaria by 2020/2025/2030, but with resistance, it will be very difficult to eliminate within this timeframe. The Government of Australia is encouraged to take more responsibility for this and increase its contribution for cross-border/regional initiatives. With the IEC meeting in September, GF should focus on more flexibility of funding, as it has become a lot stricter on how funds are used. Another difficulty facing Viet Nam is that competent staff are moving from the national programme work with donors resulting in a capacity gap.

Donor responses

DFAT can be flexible to adapt to programme needs, provided that robust evidence is available and this depends largely upon the project level M&E data received from
implementing partners. Its focus was on a robust M&E system that should be used by ministries of health and all partners, so that elimination goals can be achieved. In terms of coordination, there are multiple stakeholders in most of what it is funding. In terms of in-country coordination, DFAT does not have a presence in all countries and therefore, depends upon implementing partners such as WHO.

**Mutual accountability**

Part of the ownership at country level involves countries communicating to donors what has been funded and what still needs funding. PMI welcomed the comments from countries and recognized that the landscape is changing. From the US Government perspective, there will not be a 10-fold increase in funding, so funding will need to be leveraged from all donor resources. However, while donor coordination is part of the picture, there is also a need to understand what the country priorities are and this can only happen when countries create work plans, and this is happening already. PMI assessed what adjustments are needed to be relevant for each country’s needs before implementation begins. On a regional level, PMI called upon national programmes to help provide the relevant information in order to justify and prioritize the support to be provided to USAID and PMI.

UNOPS commented on both the issues of donor flexibility and mutual accountability. Regarding GF, restrictive tenders are often put out, meaning that programmes must abide by the contractual terms and cannot go beyond that. Regarding the issue of long-lasting insecticidal nets (LLIN), for example, the request is to WHO for solid data to show that people do not use the nets or that they will only use certain types of nets, which will help with future procurements. Regarding flexibility, this depends upon how countries present their plans and their M&E strategies. GF wants full details of programme plans and can be flexible. GF tools should not be seen as restrictions, but as tools to help monitor. Flexibility is more likely to be granted when desirable changes are clearly stated and backed up by relevant evidence.

In conclusion, the WHO view was that flexibility of funding is something that always needs to be factored in at the start of the planning phase. With regard to action plans, it would be important to build upon the current momentum and address any remaining gaps. While gaps in cross-border complementary approaches remain, this is not a perfect science and various approaches need to be tried out. There are competing priorities and declining resources, so the priority is to work further on these plans, better rank the priorities, and do a proper costing. It is clear that a comprehensive package of activities is needed rather than a fragmented approach, which makes it extremely challenging for programmes to manage. Finally, to achieve the desired impact, the MMP strategy must be housed within countries’ national strategic plans and not seen as an “add on” to national strategic plans. The 2015–2016 period provides a good opportunity to close all these gaps and tap the immediate sources of funding including the ADB Trust Fund, RAI, GF, and PMI.
4. Development of an SME strategy plan

Objectives and outcomes

The overall objective of the meeting was to consult with countries on strengthening SME systems and developing a draft monitoring and evaluation (M&E) strategy for ERAR –GMS. A key focus of the meeting was gathering inputs into developing and discussing how the regional SME strategy would be utilized.

The specific objectives were:

- to update current information on the surveillance, monitoring and evaluation (SME) system of the national malaria programme in the context of ERAR;
- to share ERAR-M&E updates including draft M&E framework with GMS countries;
- to obtain consensus/inputs from countries, partners and stakeholders towards finalization of GMS-ERAR-SME strategy; and
- to agree on the way forward/next steps to update country M&E plans to reflect ERAR-GMS concepts.

Participants were requested to together focus on evidence as a critical component for improving the regional malaria M&E system. Country programmes were invited to provide inputs on the various aspects of malaria surveillance system strengthening as countries move towards elimination. Finally, the expected outcomes of the meeting were outlined as below:

- updated information on the surveillance monitoring and evaluation (SME) system of the national malaria programme;
- sharing of ERAR-M&E perspectives;
- inputs from countries, partners and stakeholders to finalize ERAR-SME strategy; and
- definition of way forward / next steps to update country M&E plans.

5. SME perspectives in ERAR-GMS

The regional framework identifies four key priority areas:

1. full coverage of quality interventions in priority areas;
2. tighter coordination and management of field operations;
3. better information for resistance containment (malaria elimination); and
4. strengthening regional oversight and support.
Partners were reminded that strategic plan development is ongoing and that the meeting was an opportunity to incorporate additional ideas into the framework. In the context of the ERAR Objective 1, the purpose of M&E was explained, which seeks to Monitor progress and provide technical support for the emergency response to AR in the GMS. The categories of ERAR-SME and malaria elimination data needs for the GMS were reviewed and an update on the implementation of the ERAR work plan provided. The features of a strong M&E system as well as the challenges for GMS were presented. The revised ERAR scorecard indicators were shared with partners and the next steps including seeking approval of ERAR – Technical Management Committee (TMC), finalizing the indicator matrix and developing the Indicator Framework.

Discussion points

**Data-sharing, type of data to be shared and frequency of reporting**

There was extensive discussion about the frequency and type of data to be reported and barriers to timely reporting. Not all countries have been able to share data at the same level and some partners pointed out that in terms of surveillance, it was important to know the situation in real time in all countries. However, different countries faced different constraints. For example, in some countries, approvals from higher levels may have to be sought before data can be shared. In the case of Myanmar, for example, data is compiled monthly at a sub-national level, but only quarterly at a national level. This data is also not complete, but there are many challenges and reasons for this and ongoing support is required.

**Type of data to be shared:** Although partners agreed that data should be shared, there were differences in opinion on the type of data that should be shared. In view of the data challenges, it was suggested to consider sharing data by a few relevant indicators, for easy management and using in real time.

**Frequency of reporting to ERAR:** On the question of whether data should be collected on a quarterly basis rather than monthly, given the constraints and the purpose of monthly data collection, WHO ERAR explained that most countries were already reporting on a monthly basis and that given the emergency context in which all partners were working, frequent data reporting remained important and the real goal should be daily data sharing via SMS, email or other appropriate channels to facilitate timely and appropriate response at all levels. It was further clarified that the monthly data was used by ERAR for resource mobilization with donors at regional and global levels and helped to call attention to the changing dynamics of the situation. Further, the information helped to identify what challenges countries may be facing and what support they needed. It was also used to help inform the

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1 Strengthen leadership, coordination and oversight mechanism
development of new SME tools. Finally, the data was also reported at regional committee meetings and to the Global Malaria Programme when requested.

Data sharing between country partners: All countries recognized the importance of establishing a data-sharing platform where experiences could be shared for rapid reactions to (and prevention of) outbreaks. Once again, the countries had varying levels of experience and capacity for reporting.

Quality data required capacity-building of staff: In order to report quality data, countries emphasized the importance of capacity-building of staff for data collection and analysis. ERAR agreed to promote this as a priority, to cost the capacity-building needs and present it to development partners and governments.

6. Country SME situation, challenges, country priorities and way forward

Six countries presented the country SME situation addressing the country priorities, challenges and the way forward.

Cambodia

Dr Siv Sovannaroth, Chief of Technical Bureau, CNM, Cambodia, said that the key goals of Cambodia’s National Malaria Elimination Strategy (2011–2025) were as below:

- to move towards pre-elimination of malaria across Cambodia with special efforts to contain artemisinin-resistant *Plasmodium falciparum* by 2015;
- move towards Eliminate malaria across Cambodia with initial focus on *Plasmodium falciparum* and ensure zero deaths due to malaria by 2020; and
- eliminate all forms of malaria in the Kingdom of Cambodia by 2025.

The impact and key indicators were then presented (annexed) and the key challenges and possible solutions outlined as below:

- difficulties of identifying hot populations and gaining access to private companies and plantations → important to establish trust and, where necessary, engage local authorities;
- difficulties of accessing the malaria information down to village and household levels → upgraded MIS;
- limited access to real time cross-border surveillance → strengthening and expanding twin city collaboration and sharing real time data;
- access to new efficacious ACT → expanding TES study sites/ engaging communities in TES (when case loads are low);
future funds for malaria dwindling while demand for eliminating AR malaria is high → mobilizing funds;

human resources → strengthening capacity, resources; and

flexible fund modalities.

**China**

Dr Zhang Shaosen, WHO/ERAR/NPO (on behalf of the NIPD, China) said that the overall elimination goal of the National Malaria Elimination Action Plan (2010–2020) was to achieve:

Zero locally-transmitted malaria cases in China by the end of 2015 except in border counties of Yunnan Province, and malaria elimination in the whole country by the end of 2020.

The key objectives were then delineated as below.

- All Type 3 counties (interrupted malaria transmission) will achieve the elimination goal by the end of 2015.
- All Type 2 (lower malaria incidence) and Type 1 (higher malaria incidence) counties excluding border counties of Yunnan Province will achieve zero locally-transmitted malaria cases by the end of 2015 and elimination by the end of 2018.
- Type 1 counties (higher malaria incidence) in the border areas of Yunnan Province will achieve pre-elimination (incidence < 1/10 000) by the end of 2015, zero locally-transmitted malaria cases by the end of 2017 and elimination by the end of 2020.

Following the objectives, the key impact and outcome indicators were presented (annexed) and the challenges, as outlined below:

- Test: Microscopic examination is still the major method used but maintaining capacity is difficult at grass-roots medical facilities (township, village), while large-scale use of rapid diagnostic test (RDT) is under consideration due to some reasons.
- Treat: CQ+PQ for Pv & ACTs for Pf still sensitive, and all drugs free of charge. Drug-resistance is a threat so surveillance is essential.
- Track: Tracking local cases presents no problems, but tracking imported cases in migrant/mobile populations is difficult.
**Lao People’s Democratic Republic**

Dr Bouasy Hongvanthong, Director, National Malaria Control Programme, said that the four key goals of the Lao People’s Democratic Republic National Malaria Plan were as below:

1. to strengthen programme management to optimize functionality of NMC/NME;
2. to maximize effective vector control and personal protection;
3. to encourage early diagnosis and treatment by health facilities and community-based health workers; and
4. progressive roll-out of malaria elimination.

Epidemiologically, Lao People’s Democratic Republic is divided into north and south. Although the division is based on outdated risk stratification, the situation remains with the north having low transmission areas with pockets of focal outbreak and the south having the burden of disease requiring an aggressive malaria control and outbreak response. As the situation in Lao People’s Democratic Republic has changed from Tier 2 to Tier 1 this impacts the country’s response and targets and the national programme has given greater priority to case management and IEC activities.

The key impact and outcome indicators were presented (annexed) as well as the priorities and challenges. Priorities include: recruiting new staff; training staff at all levels; developing training materials; upgrading/maintenance of offices and equipment; ensuring effective communication; conducting routine programmatic monitoring and supervision; upgrading the malaria information system; introducing ‘mHealth’; preparing quarterly and annual programme reports, and conducting a malaria indicator survey every three years.

The priorities listed above reflect the key challenges, which include:

- lack of adequate staff
- lack of training
- lack of computers and other basic equipment
- lack of budget support
- lack of Internet access.

The way forward will include seeking alternative sources of funding and prioritizing needs due to reduced funding.
**Myanmar**

Dr Nay Lynn Yin Maung, National Professional Officer (Malaria), on behalf of the National Malaria Control Programme, said that the overall goal of the National Malaria Strategy (2010–2016) was to reduce malaria morbidity and mortality by at least 60% by 2016 (baseline: 2007 data), and contribute towards socioeconomic development and the MDG.

The key objectives of the National Malaria Strategy were as follows.

1. By 2016, at least 90% of the people in high and moderate risk villages in 284 malaria endemic townships (212 priority townships), and 100% in RAI areas, are protected against malaria by using ITN/LLIN complemented with other appropriate vector control methods, where applicable.

2. By 2016, malaria cases in each township receive quality diagnosis and appropriate treatment in accordance with national guidelines, preferably within 24 hours after appearance of symptoms.

3. By 2016, in 284 malaria endemic townships (270 priority townships) the communities at risk actively participate in planning and implementing malaria prevention and control interventions.

4. By 2016, the Township Health Department in 284 malaria endemic townships (270 priority townships) are capable of planning, implementing, monitoring and evaluating malaria prevention and control programme with management and technical support from higher levels.

5. By 2016, to prevent further spreading of AR to new areas and eventually eliminate Pf malaria in AR affected areas.

Inputs and outcome indicators and related strategies were presented (annexed) and the data reporting system. An overview of the key roles and responsibilities in both M&E and surveillance and response was presented covering the activity, responsible entity, location and frequency of reporting. An overview of the available SME resources for malaria was presented and following this, the key challenges and proposed solutions as outlined below:

- Surveillance system requires SME strengthening at all levels including capacity-building training;
- Gaps in SME equipment require up-to-date and reliable computers, servers and related equipment;
- A well-designed and efficient malaria database system is required;
- Data utilization requires more training of the SME personnel at all levels to analyse the data and report to decision makers; and
- Strengthening of joint outbreak reporting system.
Priority areas of action for the future include: developing capacity to manage real time response to positive cases; cooperating with regional neighbours on cross-border data sharing and joint outbreak response; developing skills and systems for tracking and mapping as well as provision of malaria services to MMP; promoting coordination and cooperation between implementing partners and regional neighbours concerning malaria prevention and control especially artemisinin-resistant malaria; achieving pre-elimination status through sub-national elimination efforts in selected areas by intensified RAI activities such as malaria case investigation, directly-observed treatment (DOT) strategy; preventing further spreading of AR to new areas and eventually eliminating Pf malaria in AR affected areas; strengthening local capacity in basic and applied research to permit and promote the regular assessment of malaria situation in the countries, in particular the ecological, social and economic determinants of the disease.

**Thailand**

Dr Prayuth Sudathip, BVBD, DDC, MoPH provided an overview of the current malaria situation in Thailand showing a 25% decline in confirmed malaria cases between 2012 and 2014 as well as a 34% decline in confirmed falciparum cases for the same period. Indigenous cases also declined slightly between 2012 and 2013. The situation in the malaria transmission villages (A1 and A2) was presented with new foci in the south, central and northeast of the country. Thailand also experienced a malaria outbreak in the south (conflict zone), northeast and Ubon Ratchathani. The key goal of the National Malaria Strategy 2014–2018 was as to ensure that the majority of Thai people are not at risk of malaria infection by 2018 and are free from malaria by 2024.

The key objectives are:

- to increase the number of districts without malaria transmission up to at least 95% (883 districts) by 2018;
- to reduce API to be less than 0.20 per 1000 populations by 2018; and
- to reduce malaria case-fatality rate to less than 0.01% by 2018;

The national strategy has been revised to reflect the number of cases and the impact indicators are as follows:

- percentage of districts without malaria transmission
- annual parasite incidence rate per 1000 populations
- malaria case-fatality rate.

The flow of data, supervision and coordination was presented involving two separate systems (BOE – general public health and BVBD, vertical programme), which when integrated, revealed a lot of duplication of records. The data is being
consolidated into one web-based malaria surveillance database. Current challenges were presented including: insufficient staff and budget due to decentralized malaria programme; capacity-building of general health staff; timeliness, correctness and completion of data; limited utilization of data for decision-making at implementation and policy levels; consolidation of multiple indicator frameworks (due to different donor requirements) with a user-friendly electronic/web-based database system; insufficient information from routine surveillance system to complete required indicator frameworks and finally, high movement of populations (both internal and international) contributing to spread of disease (Ubonrachathani – Champasak and Tak –Myawaddy); and development of a data-sharing platform to effectively share essential information with country partners for appropriate actions.

**Viet Nam**

Dr Nguyen Quang Thieu, Deputy Director, NIMPE, Viet Nam said that the goals of the National Malaria programme (2011–2020) were as follows:

- to reduce malaria morbidity to below 0.15/1000 population, and malaria mortality to below 0.02/100 000 population by year 2020; and
- to ensure that no provinces are in the phase of active malaria control, 40 provinces are in the phase of prevention of malaria re-introduction, 15 provinces are in the malaria elimination and eight provinces in the pre-elimination phase by 2020.

The programme’s specific objectives were also outlined, as below:

- to ensure that all people have access to early diagnosis, prompt and effective treatment of malaria;
- to ensure the coverage of all people at risk of malaria by appropriate and effective malaria control measures;
- to strengthen the malaria epidemiological surveillance system and ensure sufficient capacity for malaria epidemic response;
- to enhance scientific research activities and apply the results of research in malaria control and elimination activities;
- to improve the knowledge and behaviour change of the people in malaria control; and
- to provide effective management and coordination of the national malaria control effort.
Four impact indicators against which to measure progress by 2020 were shared:

- malaria morbidity below 0.15/1000 Pop
- malaria mortality below 0.02/100 000 Pop.
- annual parasite incidence (API) below 0.1/1000 Pop
- malaria is eliminated in at least 40 provinces.

A review of the progress on malaria control efforts was presented which showed an 87.9% reduction in the number of cases from 2000–2013 and the number of malaria deaths for the same period declined by 95.9%. Both routine and periodic data were fed into the data reporting system with the routine data being captured in a web-based malaria information system. One issue is that data is still missing from private drug sellers. This is required in order to have a full picture of the malaria situation in Viet Nam.

SME priorities for 2014–2016 include: updating the NSP and M&E plans (with technical assistance from WHO); developing a budget for training on M&E at all levels; providing technical assistance to update M&E plan; improving involvement of the private sector (including data collection), and enhancing SME capacity through providing modern IT equipment and training; disaggregating data-age wise, gender, imported cases, migrant/mobile.

Challenges and possible solutions identified include: limited involvement of the private sector in SME which requires additional training, support and enforcement; feedback information is inadequate and requires additional training and regulation; dissemination of findings needs strengthening, and a lack of modern information technology in the malaria surveillance system inhibits an optimal response and requires the provision of better equipment and training.

7. Identification of ERAR-SME priorities in national M&E plans

Country partners worked together to identify ERAR–SME priorities in the national M&E plan by listing and scoring the priorities for their country against the following criteria (See Table 1 - Ranking country SME priorities):
Table 1: Criteria for ranking of country SME priorities

<table>
<thead>
<tr>
<th>S/No</th>
<th>Priority (Score)</th>
<th>Minimum (1)</th>
<th>Moderate (2)</th>
<th>High (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Significance to malaria elimination</td>
<td>The SME priority does not have any significance in terms of malaria elimination</td>
<td>The SME priority is reasonably significant in terms of malaria elimination</td>
<td>The SME priority is a priority in terms of malaria elimination</td>
</tr>
<tr>
<td>2</td>
<td>Urgency</td>
<td>There is no urgency to address the SME priority in the context of malaria elimination</td>
<td>There is considerable urgency to address the SME priority in the context of malaria elimination</td>
<td>There is extreme urgency to address the SME priority in the context of malaria elimination</td>
</tr>
<tr>
<td>3</td>
<td>Feasibility of scaling up nationwide</td>
<td>The SME priority does not have any potential to scale up nationwide</td>
<td>The SME priority is likely to be scaled up nationwide</td>
<td>The SME priority can be easily scaled up nationwide</td>
</tr>
<tr>
<td>4</td>
<td>Capacity (including partners &amp; stakeholders)</td>
<td>There is no capacity in place to implement the SME priority.</td>
<td>There is some capacity in place to implement the SME priority.</td>
<td>There is strong capacity in place to implement the SME priority.</td>
</tr>
<tr>
<td>5</td>
<td>Potential for funding</td>
<td>The SME priority could have some potential for funding</td>
<td>The SME priority has some potential for funding</td>
<td>The SME priority has potential for funding</td>
</tr>
<tr>
<td>6</td>
<td>Political will</td>
<td>There is no political will to address the SME priority</td>
<td>There is some political will to address the SME priority</td>
<td>There is high political committed to address the SME priority</td>
</tr>
</tbody>
</table>

8. Identification of ERAR SME priorities

The priorities identified for each country against the ERAR criteria are listed in the tables below.

Table 2: Ranked SME priorities by country

Cambodia SME priorities (Ranked)

<table>
<thead>
<tr>
<th>S/No</th>
<th>SME Priority</th>
<th>Significance to Malaria Elimination</th>
<th>Urgency</th>
<th>Feasibility of scaling up nationwide</th>
<th>Capacity (Including partners &amp; stakeholders)</th>
<th>Potential for funding</th>
<th>Political will</th>
<th>Total Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improve case management (3 T)</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>16</td>
<td>1st</td>
</tr>
<tr>
<td>2</td>
<td>Completeness DOT for VMW/MMW</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>14</td>
<td>6th</td>
</tr>
<tr>
<td>3</td>
<td>No monotherapy available in private sector</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>16</td>
<td>1st</td>
</tr>
<tr>
<td>4</td>
<td>High proportion of using bed net and other personal protection</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>14</td>
<td>6th</td>
</tr>
<tr>
<td>5</td>
<td>Availability of standby provider for MMP (forest worker)</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>14</td>
<td>6th</td>
</tr>
<tr>
<td>6</td>
<td>MMP reach malaria awareness through BCC</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>14</td>
<td>6th</td>
</tr>
<tr>
<td>7</td>
<td>D0 surveillance and response</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>16</td>
<td>1st</td>
</tr>
<tr>
<td>8</td>
<td>Improve online /real-time data and response</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>16</td>
<td>1st</td>
</tr>
<tr>
<td>9</td>
<td>Capacity-building of SME staff</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>15</td>
<td>5th</td>
</tr>
</tbody>
</table>
China SME priorities (Ranked)

<table>
<thead>
<tr>
<th>S/No</th>
<th>SME Priority</th>
<th>Significance to Malaria Elimination</th>
<th>Urgency</th>
<th>Feasibility of scaling up nationwide</th>
<th>Capacity (Including partners &amp; stakeholders)</th>
<th>Potential for funding</th>
<th>Political will</th>
<th>Total Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Capacity maintaining of malaria diagnosis</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>14</td>
<td>3rd</td>
</tr>
<tr>
<td>2</td>
<td>Tracking of malaria case MMP</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>18</td>
<td>1st</td>
</tr>
<tr>
<td>3</td>
<td>Monitoring of drug resistance</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>11</td>
<td>4th</td>
</tr>
<tr>
<td>4</td>
<td>Indicator for post elimination surveillance</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>15</td>
<td>2nd</td>
</tr>
</tbody>
</table>

Lao People’s Democratic Republic SME priorities (Ranked)

<table>
<thead>
<tr>
<th>S/No</th>
<th>SME Priority</th>
<th>Significance to Malaria Elimination</th>
<th>Urgency</th>
<th>Feasibility of scaling up nationwide</th>
<th>Capacity (Including partners &amp; stakeholders)</th>
<th>Potential for funding</th>
<th>Political will</th>
<th>Total Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Surveillance and response in malaria epidemic and AR provinces</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>16</td>
<td>2nd</td>
</tr>
<tr>
<td>2</td>
<td>Quarterly monitoring and supportive supervision; and monthly district meeting for SME including data management</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>17</td>
<td>1st</td>
</tr>
<tr>
<td>3</td>
<td>Upgradation of malaria information and surveillance system (including database, HR, SOP, training in data management at all levels, mHealth)</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>15</td>
<td>3rd</td>
</tr>
<tr>
<td>4</td>
<td>SME equipment and supply</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>13</td>
<td>4th</td>
</tr>
</tbody>
</table>

Myanmar SME priorities (Ranked)

<table>
<thead>
<tr>
<th>S/No.</th>
<th>SME Priority</th>
<th>Significance to Malaria Elimination</th>
<th>Urgency</th>
<th>Feasibility of Scaling up Nationwide</th>
<th>Capacity including Partners and Stakeholders</th>
<th>Potential for Funding</th>
<th>Political Will</th>
<th>Total Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SME Strengthening &amp; capacity- building</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>16</td>
<td>1st</td>
</tr>
<tr>
<td>2</td>
<td>SME Equipment</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>13</td>
<td>4th</td>
</tr>
<tr>
<td>3</td>
<td>Upgraded malaria database System</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>15</td>
<td>2nd</td>
</tr>
<tr>
<td>4</td>
<td>mHealth</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>12</td>
<td>5th</td>
</tr>
<tr>
<td>5</td>
<td>MMP tracking &amp; mapping</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>14</td>
<td>3rd</td>
</tr>
<tr>
<td>6</td>
<td>Data sharing</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>11</td>
<td>6th</td>
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</table>
## Thailand SME priorities (Ranked)

<table>
<thead>
<tr>
<th>S/No</th>
<th>SME Priority</th>
<th>Significance to Malaria Elimination</th>
<th>Urgency</th>
<th>Feasibility of scaling up nationwide</th>
<th>Capacity (including partners &amp; stakeholders)</th>
<th>Potential for funding</th>
<th>Political will</th>
<th>Total Score</th>
<th>Rank</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Strengthen capacity GHS</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>17</td>
<td>1st</td>
</tr>
<tr>
<td>2</td>
<td>Data utilization for decision making</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>13</td>
<td>3rd</td>
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<tr>
<td>3</td>
<td>Consolidate indicator frameworks</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>4th</td>
</tr>
<tr>
<td>4</td>
<td>Develop data sharing platform</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>14</td>
<td>2nd</td>
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</tbody>
</table>

## Viet Nam SME priorities (Ranked)

<table>
<thead>
<tr>
<th>S/No</th>
<th>SME Priority</th>
<th>Significance to Malaria Elimination</th>
<th>Urgency</th>
<th>Feasibility of scaling up nationwide</th>
<th>Capacity (including partners &amp; stakeholders)</th>
<th>Potential for funding</th>
<th>Political will</th>
<th>Total Score</th>
<th>Rank</th>
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<tbody>
<tr>
<td>1</td>
<td>Update NSP and M&amp;E plan and TA</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>17</td>
<td>1st</td>
</tr>
<tr>
<td>2</td>
<td>Strengthening web-based data reporting system</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>15</td>
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<tr>
<td>3</td>
<td>Cross border data sharing</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>14</td>
<td>3rd</td>
</tr>
<tr>
<td>4</td>
<td>Budget for training on M&amp;E at all levels</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>13</td>
<td>4th</td>
</tr>
<tr>
<td>4</td>
<td>Data collection from private sector</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>12</td>
<td>5th</td>
</tr>
<tr>
<td>5</td>
<td>Enhancing SME capacity through providing modern IT equipment and training</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>10</td>
<td>6th</td>
</tr>
</tbody>
</table>

A summary of identified country SME priorities is categorized as follows:

- monitoring of drug resistance (TES);
- update NSP and M&E plan and TA;
- quarterly monitoring and supportive supervision and monthly district meeting for SME including data management;
- upgrading/strengthening web-based data reporting system (database);
- capacity-building/M&E training/data management at all levels;
- cross-border data/MMP tracking/mapping/private sector data;
- enhancing SME capacity through providing modern IT equipment and supplies;
- indicator framework in elimination settings; and
- surveillance and response in malaria epidemic and AR provinces
Discussion points

**Capacity-building/strengthening:** As many countries highlighted capacity-building as a priority, more specific information was sought on what countries required. China gave innovative examples of training workshops that were convened at national and provincial levels such as a training workshop on data collection, evaluation and surveillance. This provides the opportunity to look at gaps and how to respond. For diagnosis, an annual convention and national competition is held involving all provinces, and prizes are awarded which helps keep motivation high.

**Strengthening web-based recording, sharing of data and response time:** In response to a question to Viet Nam on why a high ranking was given for the funding response to strengthening web-based data sharing, but a low ranking for political support, the response was that the MOH policy was to have only one website/support for all communicable diseases. However, the malaria programme developed its own software to report on the status of malaria, but only those provinces supported by GF are implementing this. NMP is trying to scale up implementation for all 63 provinces; however, support from the Ministry is limited, given the policy of having only one reporting system.

UNOPS informed partners that there would be opportunities for reprogramming to address some of the gaps and priorities highlighted during the group work. Referring to the matrix presented, looking vertically shows many important components and the significance for malaria elimination is high, but ranking is low. Sometimes funding opportunities are high but ranking is low. The matrix is being considered in two ways: (1) as a system strengthening tool to improve SME overall and (2) is to look for opportunities. In terms of AR, it is important to consider its significance for malaria elimination but also for funding opportunities. Therefore, the matrix should be considered vertically as well as horizontally. WHO/ERAR clarified that the purpose of the exercise was to consolidate priorities and gaps, to seek approval from national authorities and then to convert this into an action plan of key activities that will be implemented. Countries were encouraged to immediately convert these priorities into action steps with a budget. Capacity-building also needs to be included at the regional level. Countries were requested to think where they most needed capacity-building and at what level the money could best be spent i.e. at sub-national, national or regional levels. Countries would then be given the opportunity to present a few key priorities at the September 30 meeting of the RAC where there will be opportunities for reprogramming.

SME is still very new for Lao People’s Democratic Republic commencing only in 2003 with support from the GF. Since then, the country has tried to strengthen and build data collection, training and support. Data is still segregated and many staff members at district level have little or no understanding of SME, making it difficult to report at higher levels. Capacity-building is needed at all levels because staff members have different levels of understanding. In the past, the requirement was just to report cases but now it is necessary to report according to indicators disaggregated
by types of malaria, treatment; so the system is still very new for the lower levels. Support in remote areas is critical if the country is to deliver effectively, particularly in terms of training and equipment. In order to provide quality data at higher levels, it will be important to develop a web-based system.

Mr Sonny Inbaraja Krishnan, Advocacy and Communications Officer, (ERAR-GMP), WHO Country Office, Cambodia reiterated the difficulties faced, particularly in terms of distance and reaching remote areas. Data is analysed in Vientiane, so in order to improve reporting in the future, countries were requested to clearly indicate where capacity-building is needed. Support should be provided down to district and sub-national levels and not just be about sending people from the capitals for further training.

In response to a question to the donor development partners regarding the GF policy of dedicating 10% of the grant for SME, UNOPS confirmed GF still emphasized that 10–15% of the grant could be budgeted for SME. The 10% included buying software, operational research, and advocacy. Mutual accountability remains important. PMI also does not place any limitation on the amount of funds for malaria surveillance.

8. Update on capacity assessment of regional surveillance, monitoring and evaluation (SME)

M&E systems strengthening in the GMS has been largely country focused with limited coordination. It is within this context that the WHO/ERAR has initiated a regional SME capacity assessment. The purpose of the assessment was two-fold:

(1) to collect, analyse and use information from the assessment to strengthen capacities of the endemic GMS countries for a well-coordinated regional approach to malaria elimination including effective response to AR (Focus is on ERAR context, in tiers 1 and 2 provinces); and

(2) to contribute to country programme/WHO on-the-job capacity-building and training to key government staff responsible of monitoring malaria surveillance systems during the assessment.

The terms of reference and methodology of the assessment was shared with participants. Country consultations with NMCPs and field visits to central and selected provinces will take place from September through to November 2014.

As participants have given priority to sub-national training, Partners were encouraged to work with ERAR by providing the relevant information for analysis and inclusion in the new regional response. This information will be used for better planning of response in Tier 1 (where ART has been identified) and Tier 2 (neighbouring provinces) and to initiate / accelerate malaria elimination in places where transmission is low. The purpose is also to engage country staff at all levels so
they will know how to do the assessment on their own. The regional assessment itself should be viewed as a capacity-building activity.

**Discussion points**

Dr Eisa H. Hamid, M&E Specialist, UNOPS requested WHO ERAR to ensure that during the country consultations for the assessment, discussions with principal recipients be included to address issues at implementation. Engaging ministries of health to help with data flow as well as informing principal recipients and sub-recipients will be important. WHO ERAR confirmed it would inform the consultants undertaking the assessment.

9. **Outline of draft Regional GMS Malaria SME Strategy**

The objective of the meeting was to collect inputs from countries and partners in order to develop the draft strategy for GMS. There was a diversity of existing SME documents and frameworks, and the goal was to unify all documents and frameworks in the new strategy. The outline of the Draft Regional GMS Malaria SME Strategy was presented as below:

- Background
- Surveillance, Monitoring and Evaluation (SME) in Malaria programme
- Country SME situation and experiences
- Strategic SME interventions (regional level component)
- Strategic SME interventions (country level component)
- Recommendations
- Way forward/Conclusions
- Annexes
- References

Detailed templates will be sent to all countries for the country components of the strategic interventions. At the regional level, partners need to consider what critical strategic interventions are required and how all partners can agree on the data to be shared. All of this work is will feed into the development of an action plan for the forthcoming two years to advocate for resources for implementation.

**Discussion points**

A number of partners found this approach positive and felt that the country-level experiences would help to move the strategy forward. Partners were reminded that while discussion on how to bring the framework together were taking place, there
were also many activities going on with the GF RAI, USAID PMI and many others. It was important that while the SME capacity assessments continued and the framework was being developed, there was no pause in data collection and reporting. Partners were requested to together agree upon SME priorities and to keep collecting data against an agreed minimum set of indicators. High-level discussions were taking place to inform implementation, such as the forthcoming RAI consultation at country level and regional levels.

**Financing malaria interventions**

Ms. Sandii Lwin, Managing Director, Myanmar Health and Development Consortium commented that with the upcoming global technical strategy meeting for malaria, two to three major issues would be emphasized and one of these was stratification, so that countries could implement control, pre-elimination and elimination strategies concurrently. It will be important for all development partners to align with the post-2015 development goals. Myanmar and Lao People’s Democratic Republic became recent observers to APMEN meetings, and there is still a need to focus on elements of elimination. This requires further discussion. Ms Lwin reminded partners that as the national elimination strategies were developed, it was important to keep in mind that there will be categories within the global financing mechanisms for projections for how much the cost of sustaining a programme globally, and accelerating this with innovative strategies.

On the same point, USAID/PMI asked development partners whether the M&E strategy had been considered in terms of including cost elements as indicators beyond project-level activities. Within PMI, discussions have taken place with partners to develop in parallel costing of activities undertaken. He reminded participants that it is not always a linear relationship i.e. coverage at 90%, 70% – it’s not clear that developing indicator framework and targets should be divorced from the exercise of developing costing.

WHO/ERAR informed participants that a GMS malaria elimination feasibility assessment was underway looking at the cost of interventions based on certain models. The report of this assessment will soon be finalized and should include some indicative figures. Regarding Myanmar, once the report has been finalized, it will be clarified whether it was realistic for elimination to be achieved within a certain time frame.

A final request from Cambodia was for such assessments to include funding modality spending in terms of a real-time surveillance response, as availability of funds to help programmes respond in real time is critical. Without such funding, the response is slowed, regardless of the availability of information and readiness to respond.
10. Identification of regional malaria SME priorities

Partners worked together to identify regional malaria SME priorities based on the following broad themes:

- routine malaria surveillance and data management
- active surveillance and response (in targeted elimination settings)
- surveillance in other specialized areas
- surveys and other special studies.

They completed a matrix to respond to questions on existing situation, identification of current gaps and recommendations with responsibilities for action. (See Table 3)

Table 3: Regional SME priorities

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<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regional surveillance system</td>
<td>Partially exists (excel sheet) No regional web based database</td>
<td>decide variables, level, coverage areas; establish regional web-based database (to be linked to current country variables)</td>
<td>Identify one focal point in each country</td>
<td>TWG, Country focal points.</td>
<td>ASAP</td>
</tr>
<tr>
<td>2</td>
<td>Completeness and timeliness of reporting</td>
<td>Partially No agreement between inter and intra countries regarding variables</td>
<td>monthly (improving the current country system,)</td>
<td>TWG, Country focal points.</td>
<td>Infrastructure, capacity building</td>
<td>ASAP</td>
</tr>
<tr>
<td>3</td>
<td>Feedback at all levels</td>
<td>Some feedback at country level but limited feedback at regional level by e-mail / telephone via WCO</td>
<td>Human and funding resources</td>
<td>develop a feedback system - country</td>
<td>Countries with TA, funding</td>
<td>ASAP</td>
</tr>
<tr>
<td>4</td>
<td>Analysis and use at all levels</td>
<td>At regional level - minimal analysis at regional level</td>
<td>Limited analysis at regional level</td>
<td>establish a system for analysis at regional level, country level</td>
<td>ERAR hub,</td>
<td>immediately</td>
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</tr>
<tr>
<td>1</td>
<td>CAM-district; CHN-.. LAO PDR- provincial and central; MMR-central level (limited at state/region); THA- district level; VTN- ..</td>
<td>Cambodia – health centre, Lao PDR and Thailand-district level. Myanmar-township level</td>
<td></td>
<td></td>
<td>countries</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Data management including database</td>
<td>At country level – partially functioning</td>
<td>No database at regional level (only aggregate data in excel sheet)</td>
<td>Web-based database at regional level; improve current database in countries</td>
<td>ERAR data management unit/regional</td>
<td>immediately</td>
</tr>
<tr>
<td>6</td>
<td>Collaboration with HMIS, planning and Bureau of Statistics</td>
<td>Two parallel system in country countries</td>
<td>partially linking of two systems.</td>
<td>One comprehensive system</td>
<td>countries</td>
<td>ASAP</td>
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[2] Case-based surveillance

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<tbody>
<tr>
<td>1</td>
<td>Case-based surveillance</td>
<td>1-3-7 (China)</td>
<td>Lacks real time response</td>
<td>integrate with other systems</td>
<td>Mekong Basin Disease Surveillance Network</td>
<td>December ’14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Day 0+3 (Cambodia)</td>
<td>No classification of index case</td>
<td>learn from existing models (H5N1)</td>
<td>WHO ESR</td>
<td>October ’14 and ongoing</td>
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<tr>
<td></td>
<td></td>
<td>Day 3 (Vietnam)</td>
<td>Limited capacity for case investigation</td>
<td>develop SOP</td>
<td>WHO ERAR</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>build capacity for case classification</td>
<td>ACT Malaria</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>F/u to ensure parasite clearance (D 28/42?)</td>
<td>APME</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>prioritize low endemic areas for case surveillance (&lt;1 per 1000 API)</td>
<td>NMCPs w/ stakeholders</td>
<td></td>
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<tr>
<td>2</td>
<td>Community-based case detection</td>
<td>1-3-7 (China)</td>
<td>Approach to asymptomatic pops</td>
<td>OR to evaluate tools for identify low parasite carriers</td>
<td>Research institutes and regional NGOs</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Day 0+3 (Cambodia)</td>
<td>How to set screening parameters</td>
<td>OR on screening parameters</td>
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## Report of an informal consultation

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<tbody>
<tr>
<td>3</td>
<td>Response</td>
<td>1-3-7 (China)</td>
<td>Lack flexible funding</td>
<td>sensitize donors to SOP/needs</td>
<td>WHO</td>
<td>Ongoing</td>
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<tr>
<td></td>
<td>China Provincial data sharing for response</td>
<td>Lack SOP</td>
<td>develop SOP and capacity for response</td>
<td>APMEN</td>
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<tr>
<td></td>
<td>Cambodia outbreak response team</td>
<td>Lack information on how to respond (what/where/when)</td>
<td>cross-border data sharing system and response mechanism</td>
<td>Twin cities approach</td>
<td></td>
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<td></td>
<td></td>
<td>Limited cross-border data sharing</td>
<td>Build NMCP will and commitment</td>
<td>APLMA</td>
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<td></td>
<td></td>
<td>Limited NMCP will</td>
<td></td>
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<tr>
<td>4</td>
<td>Foci investigation</td>
<td>China</td>
<td>Lack of SOP and tools</td>
<td>need SOP</td>
<td>WHO (resource mobilization)</td>
<td>Ongoing</td>
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<tr>
<td></td>
<td>Cambodia and Viet Nam (planned)</td>
<td>Lack of capacities:</td>
<td>continual training</td>
<td>Donor community</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>-Entomological surveillance - Limited GIS capacity - Epidemiologist</td>
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### [3] Special surveillance e.g. TES, MMP and pharmaceuticals

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<tbody>
<tr>
<td>1</td>
<td>Surveillance - Therapeutic Efficacy Surveillance (TES)</td>
<td>TES in sentinel sites in GMS countries (</td>
<td>Capacity of country varies in management of TES</td>
<td>-Follow-up of D3+ in TES sentinel site</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>min: 3 sites (including financial resources)</td>
<td>-Mapping of village with VHV, stock of commodities</td>
<td></td>
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<td></td>
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<td>Max: 11 sites) with Competency of lab technicians</td>
<td>WHO-based protocol</td>
<td></td>
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<tr>
<td></td>
<td>Sharing info under concept of “twin City” (Thai-MM borders)</td>
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<tr>
<td>2</td>
<td>Surveillance along Cross-border</td>
<td>Cross border surveillance (+ MMPs)</td>
<td>No clear picture of MMPs in each GMS country</td>
<td>-Pilot mapping of feasibility of service accessibility in tier 1 + 2 areas</td>
<td>NMCP/CO</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>MBDS format</td>
<td>MBDS system exists and share in formation, but not actively functioning in all GMS countries</td>
<td>-Follow-up work could be done at district level;</td>
<td>WHO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Twin-city approach for sharing information</td>
<td>Mal data (Pf, Pv, deaths); data not well described in district level;</td>
<td>-Political view; advocacy to senior policy makers on x-border surveillance and response protocol</td>
<td></td>
<td>MOH-NMCP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ICC inter-country component (MM-Thailand) focused in village level</td>
<td>Malaria data in border districts not well shared routinely to neighbor countries (system, language?)</td>
<td>-Advocacy to engage the military based at the border for data-sharing as part of engagement with local communities</td>
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<tr>
<td></td>
<td>&quot;Malaria corners&quot;- case detection, referral service and DOT (MM-Thailand)</td>
<td>Data on Mal cases of non-residents are not well recorded, analyzed, and shared to concern countries</td>
<td>-Advocacy and engagement of non-health government agencies at the local (provincial and district) level, i.e. labor inspectors</td>
<td></td>
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<tr>
<td></td>
<td>EDT- in MM</td>
<td>Utilization data of neighboring countries/ limited communication (language barrier, Internet access)</td>
<td>-Advocacy and engagement of local private sector (i.e. plantation/factory/logging/construction owners and managers</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>No Mal data reported from the private sectors (except PPM sites)</td>
<td>Collaborative work of neighbour cities and common agreement of treatment for MMP to have full appropriate doses</td>
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<tr>
<td></td>
<td>Variable treatment regimen of countries</td>
<td></td>
<td>-Documentation of case and sharing</td>
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<tr>
<td></td>
<td>Unclear of management of D3 positives</td>
<td></td>
<td>-Standardize record/report forms with multi language/integrate into health system</td>
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Action plan for mobile and migrant populations
### Report of an informal consultation

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<tbody>
<tr>
<td>3</td>
<td>Surveillance: Pharmaceuticals</td>
<td>Pharmaceuticals</td>
<td>- More frequent?</td>
<td>- QA/QC monitoring needs to be strengthened</td>
<td>MOH-FDA</td>
<td>Yesterday</td>
</tr>
<tr>
<td></td>
<td>Regular assessment of quality of ACTs</td>
<td></td>
<td>- Sampling from Private sector in some countries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Support to FDAs to do field monitoring</td>
<td>Support to FDAs to do field monitoring</td>
<td>- compliance to national treatment guidelines of the private sector/ clinics/ hospitals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conduct bi-annual surveys for oAMTs</td>
<td>Conduct bi-annual surveys for oAMTs</td>
<td></td>
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</tr>
</tbody>
</table>

### [4] Surveys and special studies (OR):

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Performance review / independent evaluations</td>
<td>Conducted performance review in 6 countries</td>
<td>Sharing the finding internally and in the GMS</td>
<td>Common framework for sharing</td>
<td>WHO</td>
<td>2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Regional group collate the result from all countries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Population based Surveys</td>
<td>DHS; Malaria Indicator Surveys; KAP Surveys; Migrant Survey;</td>
<td>Not all countries have MMP survey; definitions non-standardized;</td>
<td>Definition standardization;</td>
<td>WHO</td>
<td>2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MMP Survey across all countries;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Health Sector Surveys</td>
<td>Health Facility Surveys (Malaria Survey; DHS);</td>
<td>Quality of Health Facility Surveys; Community Health Use Survey; lack of private sector information</td>
<td>Cross-cutting coverage through multiple disease shared funding; technical support and capacity building for quality improvement; inclusion of private sector in surveys;</td>
<td>WHO</td>
<td>2014</td>
</tr>
</tbody>
</table>
### Action plan for mobile and migrant populations

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Outlet survey</td>
<td>Survey on Pharm. Provision; Net Surveys</td>
<td>Not frequent or fully scaled across country;</td>
<td>Quality of surveys should be improved; coverage increased as well as frequency</td>
<td>WHO</td>
<td>2014-2015</td>
</tr>
<tr>
<td>5</td>
<td>Vector Resistance Studies</td>
<td>Sentinel Site; Targeted Vector Characteristic Surveys;</td>
<td>Low coverage and long frequency;</td>
<td>Increased coverage and frequency; quality improvements; capacity building for national programs;</td>
<td>WHO</td>
<td>2014</td>
</tr>
<tr>
<td>6</td>
<td>Morbidity and mortality audits</td>
<td>Public health facility routine capture</td>
<td>No private sector capture; need for definitions and standard report criteria; need for aggregations and analysis</td>
<td>Increase surveys to check and validate routine data; quality improvements; capacity building for national programmes;</td>
<td>WHO</td>
<td>2014</td>
</tr>
<tr>
<td>7</td>
<td>Operational Research</td>
<td>National programme and Partner OR; Prioritization generally occurred;</td>
<td>Need to align prioritizations across countries; lack of forum for sharing OR results;</td>
<td>Creation of regional research network;</td>
<td>WHO</td>
<td>2014</td>
</tr>
</tbody>
</table>

### Discussion points

#### Active case detection (ACD)

ACD is being done in China and Cambodia in some areas but not in all countries. In Thailand, proactive and reactive case detection is being done in A1 or A2 villages in endemic areas. For reactive case detection, it is done only when index cases are identified in that village. Human resource limitations mean that not all index cases can be covered. Thailand has around 30 000 malaria cases and to undertake reactive cases for all is not possible. There is a budget for proactive case detection for all villages, but not enough people to do it. Another issue with this type of case detection is that very few cases are found using this method. Using microscopy under case-detection is not sensitive enough for low parasite parasitemia, so criteria are needed for active and proactive case-detection. In Lao People’s Democratic Republic, there is no ACD, except in special situations, such as the outbreaks that took place in November 2011. Support was provided from Health Poverty Action to do ACD and mobile teams were formed to detect and treat. Active detection survey can save the lives of the patient and prevent the speed of transmission.

Partners were reminded that countries would have the opportunity to again look through the four thematic areas and update the information during the assessment. ERAR would then share the information with countries. ERAR provided feedback to countries that have submitted data and helped revive the M&E systems in some of the
countries. However, between January and June, only two countries had provided this data for analysis. ERAR has analysed the data and provided feedback to countries.

**Data-sharing and common regional indicators**

Participants discussed each key indicator and the purpose and level of reporting. Partners discussed the difficulties of data analysis across countries if some countries provided health facility-level data and others only provided township-level data. It was agreed to focus on district-level sharing of data to facilitate appropriate analysis. The key regional indicators proposed for all countries to report against were as follows. (See Table 4)

**Table 4: Phuket Agreement on SME reporting to ERAR Hub**

<table>
<thead>
<tr>
<th>[A]</th>
<th>Indicators</th>
<th>CAM</th>
<th>VTN</th>
<th>THA</th>
<th>MMR</th>
<th>CHN</th>
<th>LAO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Confirmed cases by species</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>Tested (Total, Positives)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>In-patient</td>
<td>N</td>
<td>N</td>
<td>?</td>
<td>Y</td>
<td>?</td>
<td>N</td>
</tr>
<tr>
<td>4</td>
<td>Deaths</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>?</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>Imported cases</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>?</td>
<td>N</td>
</tr>
<tr>
<td>6</td>
<td>Completeness</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>?</td>
<td>Y</td>
</tr>
</tbody>
</table>

*Desire expressed by some countries to report on:*
- Immediate reporting of malaria outbreak: Y Y Y ? ? ?
- Cross border data – Screening data: Y Y Y ? ? ?

**[B] Level of reporting**

- District level: Y (OD) Y Y Y (Township) Y Y

**[C] Frequency of reporting to ERAR Hub**

- Quarterly: Y Y Y Y Y Y

Extensive discussion followed about the value of sharing the following indicators:

**Tested: Positives and test positivity rate (TPR):** The outcome of TPR depends upon the number of times it is done; so it is not always reliable; proposed to report the percentage of suspected cases beyond parasite diagnosis; test positivity not helpful for case reduction if the focus is only on people with fever.

**Imported cases:** The way that imported cases are defined and dealt with varies between countries. For example, in Thailand, imported cases refers to cases from other provinces of villages, not from other countries. In addition, not all countries conduct case investigations so case classification system may vary between countries.

**Severe cases:** Definitions vary between countries so this needs to be better defined.
**Purpose of reporting**

The purpose of sharing data in the context of elimination and AR was clarified by WHO-ERAR. It was pointed out that all the 14 indicators on the ERAR scorecard were relevant to elimination or AR response. However, as countries found 14 to be too many, the current meeting was convened to determine a small agreed-upon number of indicators against which to report and to share the data with the ERAR regional hub. It was reiterated that the purpose of sharing the data was for ERAR to detect any problems with the system or any potential outbreaks. This monthly data is important for this process, as is the 137 System. The indicators under discussion were the minimum to be shared (see Annex).

The key goal of the ERAR is elimination. It is understood that countries are at different stages on that continuum towards elimination and may need different interventions even for surveillance itself. WHO regards information on cases and deaths as very important and also recognizes that collecting some of the information is increasing the burden on partners. In view of this, country consultations could include further discussion on the minimum feasible indicators to be collected. Regarding suspected cases, a lot may be missed from the private sector and in addition, information was also needed on cases detected through other procedures such as MDA, active case-detection and not just from those showing symptoms. The ERAR Hub can facilitate additional support for countries, but agreement is needed on a minimum level of information to be shared both at country and regional levels.

**Frequency of reporting**

Various constraints were discussed that may inhibit the ability of countries to report on a monthly basis. For example, laws restricting the sharing of information with the international community or a lack of capacity for timely reporting due to insufficient human resources and/or inadequate equipment. WHO/ERAR recognized the constraints faced by countries and proposed that until such time all countries were in a position to report monthly, those countries that were able, could report monthly and others quarterly. However, it will be important to get appropriate financial support to ensure that all countries can report monthly, particularly as this is an emergency project and elimination is also being discussed. Helping countries to extract relevant data from routine surveillance systems would be a positive approach.

**Coordination of assessments/evaluations**

ERAR is mindful that there are many evaluation activities going and that combining these would be a positive step. It is important to determine the type of information that is required and refine the terms of reference accordingly. The same applies to market surveys, which should be shared rather than replicated. Part of the rationale was to create the platform where this type of information could be shared. The regional database will be housed at ERAR.
Cross-border information sharing and MMP

In Lao People’s Democratic Republic, information on MMP who contract malaria (non-Lao citizens) was not well documented and it was proposed that an indicator to extract this information be considered. For example, cases by nationality. Regarding the twin city model, Cambodia informed partners that it used the Mekong Basin Disease Surveillance (MBDS) format to share information on a monthly basis. The information shared also highlighted the action to be taken such as encouraging those engaged in case management to use bilingual cards to ensure completeness of treatment, tracking of patients. Cambodia is also willing to share cross-border screening data with other countries. In the case of China, the information would be easier to share between countries than the data itself, which would require a longer clearance time from authorities. For Thailand, 50% of cases are amongst migrants so the disaggregation of nationalities could be shared if the data was useful.

UNOPS felt that it would be useful for countries to ascertain from NMCP what kind of information should be shared. For elimination, it is important to know the burden of the disease; but if it is only at national programme level, for example, it will not give the full picture, because some data is only reported annually from partners.

WHO/ERAR informed partners that the draft would be circulated to programmes and partners for inputs and consolidated as part of an Annex of the regional strategy. In addition, the roles and responsibilities for the SME activities as well as the matrix would be sent to partners for rapid completion.

Dr Walter Kazadi, Coordinator, WHO ERAR thanked partners for the depth of discussion and reiterated WHO/ERAR’s commitment to providing appropriate support to countries. ERAR would ensure that the additional reporting requirements would not place too high a burden on countries. He confirmed that country consultations would continue and that a more comprehensive plan would be developed to provide assistance to countries via WHO ERAR, APLMAR and others. Ongoing work was still needed to identify common challenges so these could be addressed at the regional level. Finally, partners were reminded that elimination remained the focus and this comes with its own requirements that need to be addressed. Data continues to be very important policy and strategy development, operational planning, M&E, mobilization of resources and for advocacy to donor and decision makers.
Annex

Country SME situation: Key indicators by country

Cambodia

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Impact indicators</th>
<th>Target by Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Annual malaria deaths per 100,000 mid-year population reported in public health facilities</td>
<td>0.80 (2015)</td>
</tr>
<tr>
<td>2</td>
<td>Annual malaria cases per 1000 mid-year population reported in public health facilities</td>
<td>2.0 (2015)</td>
</tr>
<tr>
<td>3</td>
<td>Percentage of households at risk of malaria living in the targeted villages with at least one insecticide-treated net and/or sprayed by IRS in the last 12 months</td>
<td>80.3% (2013) 95% (2016)</td>
</tr>
<tr>
<td>4</td>
<td>Number and percentage of health facilities with no reported stock-outs of nationally recommended antimalarial drugs (ACTs)</td>
<td>77% (2013) 90% (2016)</td>
</tr>
<tr>
<td>5</td>
<td># of ODs that reach elimination status (0 incidence rate of confirmed malaria) at public health facilities</td>
<td>7 (2016)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Outcome indicators</th>
<th>Target by Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td># &amp; % of population at risk potentially covered by ITN distributed (Population at risk 3,823,285)</td>
<td>100% (2015)</td>
</tr>
<tr>
<td>2</td>
<td>% of confirmed cases in low endemic areas fully investigated</td>
<td>30% (2015)</td>
</tr>
<tr>
<td>3</td>
<td>% of confirmed transmission foci that received an appropriate response</td>
<td>TBD</td>
</tr>
<tr>
<td>5</td>
<td>% of confirmed falciparum malaria cases received directly-observed treatment (DOT)</td>
<td>80% (2015)</td>
</tr>
<tr>
<td>6</td>
<td>% of private sector outlets stocking oral artemisinin-based monotherapies</td>
<td>0.60% (2013) 0.20% (2015)</td>
</tr>
<tr>
<td>7</td>
<td>% of public sector health facilities or private sector sites without stock-outs of key commodities lasting more than one week in the last three months (also report on community health workers with no stock-outs)</td>
<td>77% (2013) 90% (2016)</td>
</tr>
</tbody>
</table>
### China

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Impact indicators</th>
<th>2015 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Percentage of original Type 1 counties (75 counties) achieving annual reported malaria incidence of less than 1/10 000</td>
<td>100% (75/75)</td>
</tr>
<tr>
<td>2</td>
<td>Percentage of original Type 1 counties achieving zero locally transmitted malaria cases</td>
<td>75% (56/75)</td>
</tr>
<tr>
<td>3</td>
<td>Percentage of original Type 2 counties (687 counties) achieving zero locally transmitted malaria cases</td>
<td>100% (687/687)</td>
</tr>
<tr>
<td>4</td>
<td>Percentage of original Type 3 counties (1432 counties) without locally transmitted malaria cases</td>
<td>100% (1432/1432)</td>
</tr>
<tr>
<td>5</td>
<td>The incidence of local P. f malaria by counties</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Outcome indicators</th>
<th>2015 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Percentage of reported malaria cases with positive parasite based diagnosis (microscopy/RDT).</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Percentage of confirmed patients who have been treated according to the national guidelines.</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>Percentage of LLIN (1 net/2 persons) for LLIN-targeted population (natural villages with annual incidence ≥1% the previous year) in Yunnan, Hainan and Guizhou where An. Minimus / An. dirus are vectors.</td>
<td>100%</td>
</tr>
<tr>
<td>4</td>
<td>Percentage of the population targeted for bednets treatment and retreatment (natural villages which have at least one malaria case the previous year) covered by bednets treatment and retreatment (in Hainan and where An. minimus / An. dirus are vector in Type 1–3 counties).</td>
<td>100%</td>
</tr>
<tr>
<td>5</td>
<td>Percentage of targeted natural villages which received IRS in the last 12 months in Type 1–3 counties.</td>
<td>100%</td>
</tr>
<tr>
<td>6</td>
<td>Percentage of households at risk of malaria with at least one LLIN/ITN and/or sprayed by IRS in the last 12 months in Type 1–3 counties.(household survey)</td>
<td>100%</td>
</tr>
<tr>
<td>7</td>
<td>Percentage of population at risk who answered 3/5 questions about malaria correctly in type 1–3 counties. (household survey)</td>
<td>90%</td>
</tr>
<tr>
<td>8</td>
<td>Percentage of population at risk who reported sleeping under LLIN/ITN the previous night in Hainan, Hainan and Guizhou. (household survey)</td>
<td>80%</td>
</tr>
<tr>
<td>9</td>
<td>Percentage of persons residing in malaria risk areas with fever in the last two weeks who sought health care within 48 hours of onset of fever.</td>
<td>80%</td>
</tr>
<tr>
<td>10</td>
<td>Percentage of vulnerable populations at high risk of malaria covered by LLIN distribution including newly pregnant women and new forest workers in Hainan.</td>
<td>100%</td>
</tr>
<tr>
<td>11</td>
<td>Percentage of reported cases in which origin of infection (local and imported) was determined through follow-up case investigations in the areas of pre-/elimination.</td>
<td>100%</td>
</tr>
<tr>
<td>12</td>
<td>Percentage of active foci reported which have been properly dealt with according to the national elimination guideline in the areas of elimination.</td>
<td>100%</td>
</tr>
<tr>
<td>13</td>
<td>Percentage of Type1–3 counties which have reoriented the programme from control to pre-/elimination</td>
<td>97%</td>
</tr>
<tr>
<td>14</td>
<td>Percentage of provincial CDC without a stock-out of diagnostic and treatment supplies during last 12 months</td>
<td>100%</td>
</tr>
<tr>
<td>15</td>
<td>Percentage of township hospitals in type 1 counties without a stock out of diagnostic and treatment supplies during last 12 months</td>
<td>100%</td>
</tr>
</tbody>
</table>
### Lao People’s Democratic Republic

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Impact indicators</th>
<th>Target year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reduce annual parasite incidence (API) to 4.3/1000 by. (Baseline in 2013 =5.6/1000)</td>
<td>2020</td>
</tr>
<tr>
<td>2</td>
<td>Maintain in-patient malaria mortality (probable/confirmed) &gt; 15 per year</td>
<td>2020</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Outcome indicators</th>
<th>Target year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Increase % HFs and PPM units submitting timely reports to 95%</td>
<td>2018</td>
</tr>
<tr>
<td>2</td>
<td>Increase % HFs reporting no stock-out (RDT/ACT) during last six months to 90%</td>
<td>2016</td>
</tr>
<tr>
<td>3</td>
<td>Increase % VMW reporting no stock-out (RDT/ACT) during last six months to 80%</td>
<td>2016</td>
</tr>
<tr>
<td>4</td>
<td>Increase % of under-5-y-o who slept under ITN to 90%</td>
<td>2016</td>
</tr>
<tr>
<td>5</td>
<td>Increase % of HH with 1 ITN to 95%</td>
<td>2016</td>
</tr>
<tr>
<td>6</td>
<td>Maintain % of suspected malaria cases receiving parasitological test &gt;90%</td>
<td>from 2015 onwards</td>
</tr>
<tr>
<td>7</td>
<td>Increase % of confirmed malaria cases that receive 1st line ACT at public HFs &gt;90%</td>
<td>from 2015 onwards</td>
</tr>
<tr>
<td>8</td>
<td>Increase % HFs with pass criteria for microscopy QA to 90%</td>
<td>2020</td>
</tr>
</tbody>
</table>

### Myanmar

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Impact indicators</th>
<th>Target (%) by Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2014</td>
</tr>
<tr>
<td>1</td>
<td>Confirmed falciparum malaria cases (microscopy or RDT) per 1000 persons per year</td>
<td>7.5</td>
</tr>
<tr>
<td>2</td>
<td>% of administrative units with falciparum incidence &lt;1/1000</td>
<td>6%</td>
</tr>
<tr>
<td>3</td>
<td>% of indigenous cases among investigated cases (applies only to low endemic areas)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Outcome indicators</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>% of mobile people that used an ITN the last time they slept in transmission areas</td>
<td>To be Determined</td>
</tr>
<tr>
<td>2</td>
<td>% of mobile people with fever in the last 3 months that accessed parasite-based diagnosis</td>
<td>To be Determined</td>
</tr>
</tbody>
</table>

### Output indicators

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Output indicators</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td># of ITN/LLIN distributed to at-risk populations through mass campaigns</td>
<td>1,190,000</td>
</tr>
<tr>
<td>2</td>
<td>% of confirmed malaria cases that received first-line antimalarial treatment according to national policy</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>% of confirmed cases in low endemic areas fully investigated</td>
<td>Jan-Jun/2014 -10%</td>
</tr>
</tbody>
</table>
Report of an informal consultation

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Impact indicators</th>
<th>Target by Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Malaria morbidity below 0.15/1000 Pop.</td>
<td>2020</td>
</tr>
<tr>
<td>2</td>
<td>Malaria mortality below 0.02/100 000 Pop.</td>
<td>2020</td>
</tr>
<tr>
<td>3</td>
<td>Annual parasite incidence (API) below 0.1/1000 Pop.</td>
<td>2020</td>
</tr>
<tr>
<td>4</td>
<td>Malaria is eliminated in at least 40 provinces.</td>
<td>2020</td>
</tr>
</tbody>
</table>
1. **ERAR Overview: Progress, opportunities, issues, challenges and way forward**

Dr Kazadi noted the rapid evolution of resistance to first-line drug treatments in GMS and the necessity of adjusting IEC/BCC messages accordingly. Keeping pace with the changing situation and ensuring consistency of messaging and strategies across countries continued to be a key component of the malaria eradication strategy. The key achievements of the ERAR hub were reviewed since its inception, highlighting the ERAR stakeholder consultation in four GMS countries; updating of ERAR stakeholder-mapping; military drug efficacy studies and the on-going feasibility assessment for malaria elimination; establishment of the ERAR technical working group on regional surveillance and M&E; regular convening of the TMC and technical teams; two informal consultations on MMP (Yangon and Hanoi); GMS and Pacific TES Networks meetings; engagement with senior government officials and key stakeholders (GF/RAI/RSC, BMGF, DFAT, USAID/PMI, ADB/APLMA, GTS, GMAP2); support to the outbreak response in Champasak province, Lao People’s Democratic Republic.

The financial needs for the response, which total approximately US$ 500 million per annum for GMS, were reviewed. Through the RAI, GF has pledged US$ 100 million and other partners have also contributed. ERAR coordinates the framework, which is funded by DFAT and BMGF.

When the ERAR framework was developed, it was assumed that western Cambodia was the “fire point” and that resistance would spread from this point. However, with the breakthrough of a molecular marker for AR, 30 mutations have since occurred and the recent mapping exercise has shown that the majority of mutations occurring in Myanmar are not linked to western Cambodia. Additional new evidence suggests that even in Africa, some mutations have been there since 2002, meaning the whole paradigm is likely to change. The most important message to highlight is that if ART continues, it will jeopardize the efficacy of ACT and increasing the risk of malaria becoming untreatable. GMS has been an epicentre for not only ART resistance, but also resistance to chloroquine and other drugs. Therefore, the goal must be the elimination of malaria.

The official launch of the ASEAN Economic Community (AEC) in 2015 will facilitate the free mobility of around 600 million residents, 285 million professionals and highly skilled workers. In addition, with the foreign trade agreements between ASEAN countries and China and the extensive regional infrastructural development of roads and railways, migration is predicted to increase significantly, particularly amongst young adults unable to earn a living in their home countries. The implications of mass migration for malaria control are significant and require an urgent review of and adaptation of BCC/IEC strategies to reflect the changing regional dynamics.
The meeting objectives therefore focused on:

- the harmonization of behavioural change communication (BCC) messages for target populations, as identified in the ERAR framework;
- collaborative improvement of existing tools and channels to reach non-literate partners;
- exploration of innovative approaches beyond printed materials; improvement of targeted messages to private sector groups (drug outlets, vendors, farm owners etc);
- exploration of new avenues to improve collaboration between health and non-health sectors to reach high-risk populations; and
- exploring methods for monitoring and evaluation of IEC/BCC activities.

2. Overview of BCC/IEC strategies, progress & challenges in GMS

The key target audiences for IEC, BCC, interpersonal communication (IPC) messaging were reviewed and these included the following: individuals and communities settled along border areas; forest dwellers and workers; rural and semi-urban populations in key geographies; mobile populations, including long-distance migrants and cross-border migrants; refugee populations in particular areas; non-state actors and populations under their control in conflict zones; border security forces, rural and border area government health-providers, private health-providers and NGOs/civil society organizations providing health services. In addition, other groups that need to know about AR and its implications include: urban and semi-urban populations and urban and semi-urban government health-providers and private health-providers.

As MMP are not a homogenous group, IEC/BCC messaging should be focused on all points of the mobility system rather than at a single fixed point. In addition, more attention to the interconnectedness of malaria transmission is required – particularly the social, cultural and emotional relationships and networks for spreading messages. Finally, given the number of migrants working for private companies, including the private sector in BCC/IEC strategies is essential for a holistic and effective response.

Cambodia

Dr. Bou Kheng Thavrine, said that the key objective of the BCC/IEC malaria elimination strategy in Cambodia is to increase community awareness and behaviour change among the population at risk and support the containment of AR parasites through comprehensive BCC, community mobilization and advocacy. Current
activities being implemented include: formative behaviour research to guide IEC formulation and materials design; Malaria Day activities; health education through VHV and health centres (HC); use of mass media for messages related to malaria diagnosis; enhancement of knowledge of health staff at different levels with an emphasis on correct diagnosis and proper treatment, referral of severe malaria cases and prevention; monitoring and evaluation of the education activities.

Key achievements include: increased malaria awareness amongst people at risk; distribution of 6.1 million free nets by CNM in a five-year period. Factors contributing to success include: VMW and VHV operating in the villages in malaria endemic areas; innovative interventions in treatment and prevention and accompanying monitoring/supervision; decentralization and expansion of the key malaria control activities to remote areas with poor access to health service; peace, political stability, economic development and infrastructure development: transportation; information; and increased participation from all levels. The way forward includes developing bilingual language materials; 100% coverage of health education activities to VMW villages; provision of correct information on malaria and access to EDAT for migrants; collaboration with the private sector for health education activities; continuation of cross border collaboration with neighboring countries and expansion of activities to other provinces bordering Lao People’s Democratic Republic and Viet Nam; M&E of BCC.

Myanmar/China

Dr Manan Naw Jar, National Coordinator, Health Poverty Action (HPA), Myanmar, said that the HPA project along the China/Myanmar border which covers an area of 2000 km and includes hundreds of thousands of long-term migrants and approximately 1.5 million short-term migrants. While migration is a key factor in the transmission of malaria, other factors pose additional challenges such as a complex political situation; diverse languages and ethnicities with different cultures, religions and attitudes. Added to that, communities are rapidly changing. Migration in these communities occurs for many reasons such as: cross-border marriage, visiting friends and family, trading, resource business, logging, mining and work on plantations.

The BCC/IEC strategy of HPA was developed with these challenges in mind and has focused on relevant messages for self-awareness; targeted, consistent and participatory approaches in communication channels; multi-stakeholder involvement; integrated messages beyond malaria; capacity-building, community system strengthening, and providing a supportive environment for sustainability. Multi-language picture messages have also been developed as well as songs and mobile video shows. Rather than focusing on celebrities, the videos are based on real stories and this has been effective, as people rarely get to see videos and also tend to be more interested in those around them. The strategy involves reaching a broad target group and requires health education outside of working hours to ensure that all populations are reached.
Lao People’s Democratic Republic

Dr Bouasy Hongvanthong provided a brief update on the malaria situation in Lao People’s Democratic Republic, pointing out that between 2000 and 2011, the country experienced a rapid decline in malaria incidence and was in line to achieve its MDG goals (API<2/1000). However, since 2011, a number of outbreaks have occurred, mostly in the southern provinces. The IEC/BCC strategy for Lao People’s Democratic Republic is an integral part of the “National Strategic Plan for Malaria Control and Elimination (NSP), 2011–2015”. The overall objective of the IEC/BCC work plan is to maximize the access and utilization of malaria services through IEC/BCC and strengthen community mobilization efforts, especially in elimination provinces. IEC/BCC is cross-cutting and linked to case management and is critical to helping Lao People’s Democratic Republic meet its MDG targets. Key activities are implemented at central, provincial, district and community levels. The general IEC/BCC strategies are based on malaria stratification (Stratas 1, 2 and 3) and activities vary according to each strata. IEC materials have been adapted to reflect the changing migration dynamics and now include Vietnamese and Chinese languages in addition to Lao. Moreover, when patients are treated, patient history of malaria is taken and information provided about when to go for testing. The public–private mix approach in Lao People’s Democratic Republic is led by the Ministry of Health and only those clinics and pharmacies that engage with the MOH are included in the Government network. Therefore, it is a good incentive to ensure private sector collaboration.

Discussion points

Use of celebrities for IEC/BCC

Partners discussed the benefits and constraints of engaging celebrities to promote IEC/BCC messages. As partners shared their different experiences, it became clear that the promotion of messages by celebrities in some communities could be very effective, while in others, community members were likely to focus only on the celebrity and not on the message. HPA said it is important that strategies are created for the specific contexts in which partners are working. The development of messages through different media should be a continual process where messages are adapted to reflect changing situations and different populations in many different areas. Therefore, engaging celebrities is neither a good nor a bad approach per se, but depends upon the local context.

Dual cross-border approaches: A question was posed to HPA concerning the different systems utilized on different sides of the border and whether this created confusion. A lesson was shared from the WHO containment project that the coordination of multi-language IEC/BCC materials enabled teams on both sides of the border to use the materials. It worked well between Cambodia and Thailand and the same approach was now being developed for use on either side of the Thailand/Myanmar border.
HPA responded that on the China/Myanmar border, there is coordination between partners to use the same materials, but the challenge is that the sensitization/political issues make it more difficult and there is not yet sufficient support. There are still other issues constraining the cooperation; however, HPA recognizes that using two types of IEC materials can be confusing, so is now using dual language materials.

**Unregistered pharmacies:** A question was posed concerning the illegal pharmacies in the Lao People’s Democratic Republic and the strategy used to reach them. The response was that in 2007 there was discussion about whether to include unregistered pharmacies; however, the PPP approach is to make government ACT free of charge or at least cheaper than at the unregistered clinics to encourage patients away from unregistered clinics.

**Videos:** A question to HPA was whether the videos were developed in a participatory way with community members making their own videos as this could be a very useful approach. Despite the language challenges, had this approach been used? A follow-on question concerned the use of sport to get messages across as it is cheap and effective and a great way to target youth. The organization “Right to Play” is a useful resource in this area.

HPA responded that they worked with local people to develop the videos according to the village stories and that subtitles for different local languages were used, although it was sometimes still difficult to use local language-speaking people. People in the videos were also shown using bed nets and so on, so that subtitles were not always necessary. An add-on comment was that there is a lot of experience in the region in using sports stars and there has been effective crossover with MTV, mostly with HIV, but also the WASH campaign.

**Ensuring images are appropriate for the local context:** Partners further discussed the importance of ensuring that the tools utilized to get messages across were appropriate for the local context. For example, in some cultures showing images of sick people would encourage people to take precautions against malaria, because they realize it is dangerous, whereas in other cultures, people do not want to look at images of sick people. This led to the issue of the need for evaluations of IEC/BCC strategies to ensure they remained appropriate.

**Mobile apps:** The suggestion was put forward to consider using telecommunications and media more effectively. For example, mobile applications could be collectively developed and these are inexpensive and effective.

**Supportive environment:** A question was posed to HPA about how non-state actors were engaged to provide their support in implementing effective IEC/BCC messaging. The response was that it was challenging, but that HPA engaged religious leaders and used whatever other channels they found appropriate. A final comment from Myanmar was that in the northern parts of the country, the IEC/BCC was more
forward-looking, but in other areas, the IEC activities are still based on the 2007 strategy which is now outdated, and does not reflect the changing needs in the context of ART. Myanmar has limited expertise in IEC/BCC and is currently revising the plan, but needs further assistance.

### Thailand

Dr Rungrawee Tipmontree, Public Health Technical Officer, Bureau of Vector Borne Diseases, Department of Disease Control, Ministry of Public Health, Thailand said that the country’s target is to eliminate malaria by 2024, so EDAT is a priority. BCC/IEC activities are implemented at provincial, district and village levels in malaria clinics, schools and other community settings. Activities include: interpersonal communication; group health education; home visits for malaria cases (DOT&FU); workplace campaigns, World Malaria Day (WMD; advocacy meetings, and harmonization of BCC materials with neighbouring countries. The key messages include: early seeking for malaria diagnosis and treatment; full compliance to DOTS, follow-up and personal protection i.e. regular use of ITN. The messages are delivered through health education including IPC and mass media; community participation: malaria installation of BCC materials; workplace campaigns, capacity-building and engaging business owners for malaria prevention. Key achievements in BCC/IEC include: increased community participation through enrolment of village health volunteers (VHV); strengthened capacity of field staff (foci team) for effective BCC; more migrants reached via BCC sessions conducted by migrant health workers; and preliminary evaluation of the impact of BCC conducted amongst the Thai population.

Key challenges remain: it is still difficult to reach MMP, particularly in border areas due to language barriers, inadequate numbers of health educators and geographical difficulties. To address these issues, it was proposed that more migrant health volunteers/workers should be enrolled and trained and BCC should be carried out with migrant workers at appropriate times such as in the evenings. An additional challenge is low literacy rates amongst migrants and limited comprehension of Thai language. Therefore, IPC must be effectively maintained and pictorial or audio media in education forms should be emphasized. Communication to ensure drug compliance is also important and finally tailored BCC is still required for MMP and the expansion of malaria services to MMP at no cost.

### 3. Strategic role of BCC in changing malaria landscape in GMS

CAP Malaria’s BCC objectives are: (1) to increase malaria awareness and motivate adoption of preventive/health care seeking behaviour and treatment compliance; (2) to explore adequate BCC approach toward the most high-risk groups including MMP, and (3) to align CAP-M BCC approach with those across GMS countries. BCC/IEC activities are carried out amongst residents, forest-goers, plantation workers and cross-border migrants. A number of different partners deliver the messages including
VMW, MMs, nuns and grannies, teachers, taxi drivers, farm owners, brokers, and migrant worker volunteers. The engagement of nuns and grannies for training as health educators has been successful, because they are trusted people within the communities.

CAP Malaria’s focus on engaging the private sector has been successful with the involvement of 17 mega companies in Cambodia and Myanmar and 12,000 farm owners in Cambodia and Thailand for distribution of LLIN and IEC materials, establishing MMW for EDAT & HE. The identification of touch points to maximize the opportunities for reaching MMP has been successful. For example, forest-goers use taxis to get to the forest, so CAP Malaria uses touch points to distribute nets, and information before forest-goers reach the forest. However, importantly, there is no ‘one size fits all’ approach and what works on one side of the border does not necessarily work on the other side. The listening dialogue approach has also been successful in engaging migrants and others to give feedback on how programmes/interventions could be improved. Key challenges ahead include: reaching MMP (cross-border populations, forest-goers) is labour and resource intensive; Evaluating the impact of BCC is important but challenging; Low usage of LLIN among some residents and MMP (e.g. net preference, occupation/lifestyle, housing conditions); inadequate service availability affects the health seeking behaviour (availability and accessibility).

**Viet Nam**

Dr Nguyen Quang Thieu, Deputy Director, National Institute of Malariology, Parasitology and Entomology, said that Viet Nam does not currently have a dedicated BCC/IEC strategy; however, within the national plan, the objective of BCC/IEC is to promote the BCC/IEC activities to improve the knowledge and behavior change of the people, especially those are in the areas at high risk of malaria, on malaria control and elimination. Additional specific objectives related to BCC/IEC are to: (1) improve the knowledge and behaviour change related to malaria prevention and control; (2) ensure that more than 95% of population in the malaria endemic areas can recall at least four key messages on malaria control and elimination; (3) ensure that more than 85% of population in the malaria endemic areas are using bed nets.

Key challenges ahead include delivering effective IEC/BCC activities in the absence of a dedicated strategy, budget or technical support. Additional challenges include a lack of human resources at all levels; poor communication skills of staff at all levels; language barriers, difficulty in reaching hidden or remote populations such as ethnic minority and MMP populations.
Discussion points

Impact assessment of BCC/IEC interventions

A key issue for discussion was how best to monitor and evaluate BCC/IEC interventions. It was agreed that IEC/BCC evaluations are very important, given how resource-intensive most activities are. In addition, it is difficult to attribute a decline in malaria to BCC/IEC solely without adequate evidence, as any decline could be attributable to other factors such as a combination of better communication, roads, access to treatment and so on. A question to CAP Malaria was whether impact assessments were conducted to measure behaviour change. The response was that CAP Malaria works closely with national programmes and stakeholders to field-test all products before use; however, no assessments have yet been conducted and as yet, CAP Malaria does not have a strong measuring impact tool for BCC/IEC.

LLIN: viability of the lending scheme

In response to a question concerning the feasibility of the LLIN scheme as the experience in Myanmar was that the nets were never returned, CAP Malaria’s information from Focus Group Discussions (FGD) conducted in remote areas on the border indicated that MMP stayed only for short periods and procuring nets for only 3–4 weeks was not feasible. So CAP Malaria worked with district and provincial counterparts to develop the LLIN strategy with the goal that everyone coming to a malaria endemic area should have access to a net. They then took the nets to owners of the work sites and asked the MMP to return the nets to the owners at the end of the work contract. This approach helped build relationships between owners and migrants. In terms of tracking the nets, when the workers are paid they have to return the nets. So for the farm-based workers, it worked quite well. An additional comment was that the loan scheme was only applied for MMP who frequently came and went (such as for seasonal cropping and harvesting) and work less than six months. Otherwise they are given their own nets to keep.

BCC/IEC for mass blood screening

A question related to the strategies being used for AR and malaria elimination under RAI was raised on how is BCC/IEC conducted during the many mass blood-screening activities under RAI, particularly as there were more and more activities targeting people with no symptoms and ACD.

CAP Malaria responded that mass drug treatment is not used in RAI in Cambodia. A pilot project was underway, financed by a different donor. The project is focused on how to target people and get them involved in MDA. As it is a pilot, the information is not yet ready for sharing. At present, the information is given to the target group for MDT, but there is no specific IEC/BCC related to that.

Thailand commented that for ACT, these measures were implemented in malaria transmission areas. People in those areas must receive IEC/BCC to let them know that they are an at-risk population. IEC/BCC is not implemented in non-transmission
areas. Foci investigation occurs if a case is discovered in a non-transmission area. It is challenging since people need to be screened within a 5km radius and specific IEC/BCC materials are created for them. The foci team is also trained for non-transmission areas because the people in these areas are no longer thinking about malaria.

An additional comment from Cambodia questioned whether the right diagnostic tools were being used for asymptomatic or low parasitemia and whether microscopy and RDT really captured the true picture. For D3 surveillance, there is a proxy for AR at the community-level, so the information has to be quickly transmitted to the community. The community might not fully understand what resistance means, so volunteers go quickly and intensify case management in that area. In Cambodia, this is just in the surrounding 10 houses for D3 positives. Every community knows something has happened. The health team is very clear with the community, supporting the health workers to stay late and capture all the people and ensure that microscopy is used at the village level.

PMI/USAID commented that this is an important issue and MDA was proposed for implementation at the Thailand/Myanmar border. MDA means giving the drug to everyone in order to eliminate the parasite, regardless of whether they have symptoms. However it is difficult enough to ask sick people to comply, let alone those not showing symptoms to take medicine for three days. A lot more work is needed to ensure that this happens appropriately.

ERAR posed a question to donors regarding policy measures and how policymakers viewed MDA; how should that be framed so donors and policy makers will support it. It is important to give more thought to how this is presented. MDA is done with other diseases, but evidence that it works is still required, as at this stage, it remains an assumption. There is no policy yet on MDA for malaria, as it is still at the research stage.

UNOPS enquired whether partners had specific ICC/BCC for standby treatment for MMP. There are many examples of where IEC/BCC has been tested and works, but there is also a need to develop new strategies for how to target for unusual situations. For example, with standby treatment, who should take it, when and where.

The discussion on how to go about ensuring that essential messages on EDAT and preventative messages reach the high-risk populations, especially with all the different ethnic languages was summarized. This requires a supportive environment. More thought needs to be given to how to convince asymptomatic cases to go for screening and how develop messaging for healthy people around MDA.

**Tailored Strategies for communities:** It is important to continue to refine approaches for working with specific ethnic minorities living in remote and forest areas. Case data from 2013 in Ratnakiri showed half of those affected by malaria were children under 15 yrs old. That may have been a particular location, but it indicates
the importance of developing tailored strategies for communities. HPA commented that in Ratnakiri, the high percentage of sick children can be partially explained by the health-seeking behaviour of the community. It is always important to look at the specific context and cultural practices around health-care-seeking behaviours to avoid possible misconceptions that might occur because of the way that data can be clustered.

Partners worked to identify priority areas of action and existing gaps for BCC and IEC:

- ethnic groups, internally displaced persons and refugees;
- internal seasonal agricultural workers in small/big farms; ‘Semi-stable’ workers in mega or small development projects;
- private sector
- security forces/border patrol and UN GMS peacekeeping forces

**BCC at the margin: How to address the low uptake of preventative measures among indigenous communities in the GMS for effective malaria/forest malaria control and elimination.**

Dr Daniel Dimick, Health Poverty Action, Cambodia said that HPA’s BCC/IEC key interventions are: village level- intra community IEC/BCC by own people; radio call-in shows and public announcements in six languages of indigenous peoples (IP); adaption of IEC materials to be IP-sensitive; creation of story messages in IP oral story telling forms; audio and video messages in IP languages by local people (audio studio in Ratanakiri; trained IP voice and acting teams from communities). These interventions reflect HPA’s focus on understanding the different perceptions of health and illness amongst indigenous populations as well as orienting BCC/IEC interventions to oral cultures.

Two recent assessments (the 2014 Indigenous People Social Assessment in Northeast Cambodia and the September 2014, a survey of MMP along the Cambodia/Thailand border (cluster randomized 600 households in 60 villages) will provide important insights for future development and refinement of BCC/IEC interventions. Initial findings from the Ratnakiri survey showed that 53% of HH had at least one MMP family member; 21% took forest trips frequently (1<) for an average seven days (39% multi-dimensional); 46%% of forest-goers went by foot only on their journey; 22% went by motorbike only; 24% went by foot and motorbike; 0% went by car or taxi; 44% of forest-goers stated they took a bednet along; 88% stated they took a hammock net; 90% MMP households used bednets; 74% used LLIN; 30% used hammock nets; and 50% wore long-sleeved clothing to prevent malaria.
Moving forward, HPA will give priority to: continual adaption and change for each community individually-continual review, retarget, retool; streamlining pathways of change-agents of change approach; developing safeguards with new approaches, and reinforcing village-level health structures. The pathways of change approach will be the key focus moving forward. This approach is to (1) identify previous change in community (2) map key catalysts for change in the community; (3) specifically target catalysts in addition to general BCC/IEC, and (4) monitor pathways for resistance or blockages. HPA has found this to be more effective than the positive deviance framework.

**Positive deviance: an innovative approach to improve malaria outcomes in Myanmar: Preliminary evaluation results**

Mr. Glaister Leslie, Malaria Consortium (MC) said that they had piloted positive deviance (PD) in six villages of Kyun Su Island, Myanmar with a population of 7000 people. The PD concept is based on the premise that “In every community there are certain individuals whose uncommon positive behaviours enable them to find better solutions to problems than their neighbours who have access to the same resources” The evaluation methodology involved collection of data at baseline (March 2013) and endline (March 2014); quantitative data; household survey of 462 (baseline) and 496 (endline) households; specific questions in the survey for 509 (baseline) and 808 (endline) rubber tapper and fishermen; qualitative data and 12 focus group discussions and 10 in-depth interviews.

Key findings were that: increases in BCC coverage were largely attributable to the PD intervention; knowledge about malaria risks, symptoms, prevention methods and treatment increased; attitudes towards VHV improved; prevention practices among women, fishermen and forest-goers improved; people in villages where the role model wore long clothes were more likely to also do so compared to people in villages where the role model did not. The conclusion of the pilot study was that PD may be an effective alternative to traditional BCC methods for hard-to-reach populations. Limitations of the study include a potential bias as there were a substantially higher proportion of households with rubber tappers in the endline sample and practices of forest-goers and fishermen were not self-reported. However, the research team does not think that these potential biases threaten the validity of the conclusions.

**Discussion points**

**Positive deviance approach**

A comment from ARC was that both approaches seem very effective in different contexts. While HPA no longer found PD effective in its programme area, the Malaria Consortium found it beneficial. So should PD then be done everywhere and not just for targeted communities.
HPA responded that PD had been used in all initial BCC activities; however, the effectiveness was dependent upon what stage the programme was at. At the “greenfield” stage, the uptake is higher when people have never heard the messages before. However, HPA is now trying to get the outliers to change – so for these groups PD does not work which is why the ‘catalyst for change’ approach is being tested; but PD was critical in the initial stages. PD is used in Kachin State in extremely remote areas; however, scale-up is not recommended as it depends upon the context. MC’s approach might be much easier to scale-up as it works with the general populations and not just indigenous populations.

MC’s response was that the role of VHV speaks of the importance of interpersonal communication and that PD can be used as an add-on to this existing role. The key challenge is ensuring that the PD role model comes from the community, especially the isolated ones. It is challenging for the NMCP to get the messages across to these communities as they need to hear it from someone in their own community. So rather than trying to replicate and scale-up PD per se, the emphasis could be on scaling up IPC.

Scaling up positive deviance

WHO/ERAR questioned how easy it would be to use routine health workers to implement PD. For example, as a programmatic model, whether routine health workers be used to scale up other interventions amongst high-risk groups such as forest-goers in the night and if partners had any additional focus/plans.

MC responded that it was planning to do a costing exercise for scale-up. However, anecdotal evidence suggested that PD is not as expensive as originally thought, particularly as existing staff are implementing the PD (VHV, VHW or MMW). There is a need to clarify the roles of these village workers so they could integrate additional PD services. It’s really a small “add on”. HPA added PD had been scaled in the programme areas as the IP communities are small/insular and they already know who their PD person is so it is already embedded. To really scale-up PD is a different discussion. Both the ‘catalyst for change’ and the PD models have potential and need to be adapted according to context.

Effectiveness of PD in the context of implementing new interventions

In response to a query on when no role model is available, is it still appropriate to use PD, HPA’s response was that for IP communications, it depends upon whether the PD person is influential and also a catalyst for change, as this will speed up the change. For new interventions, it is preferable to be targeted and use the pathways of change/catalyst approach.
**Cost of community-based approaches such as PD and pathways of change**

A question about the viability of such approaches was raised in the context of the costliness of the programmes. How did NGOs envision the future of such programmes? HPA responded that its approach was to first develop the tools/system, then to refine it and ensure that it is financially viable to implement and can then be turned over to the national programme. Training VHW is important, as the national programmes can then continue to communicate with the same people when they take over. HPA focuses on developing tools that the tools are simple and fit the national health systems.

For PD, MC responded that the programme is not that expensive, as it is integrated into the functions of existing staff and adds very little time to their work. A costing study by country is underway and MC could work with each country to help them to see how it could be implemented. MC further explained that there are ways that NGOs can support the initial process and absorb the initial costs before handing over to country programs.

**Non-formal education**

The department of non-formal education in Thailand has been working with frameworks utilizing PD and structures of influence and different concepts of health and illness for close to 40 years with national minorities largely around oral communication with a lot of support from US and Europe. This information and experience is very accessible and there are good specialists that could be resource people for malaria programs.

**Poverty**

Poverty should not be underestimated as a key factor in fighting malaria. Although the malaria burden has declined a lot, eliminating the last cases is the most difficult. Using a diversity of approaches and interventions is positive, but the question is how to reach the last cases. For example, there are still many situations where villages have no running water, so at night and little children bathe in shallow streams at the prime vector biting times. In addition, while nets may be available, sleeping mats frequently have holes for mosquitoes to enter through. Therefore, besides the traditional BCC/IEC approach, it is necessary to consider these other factors.

**Storytelling**

A question to HPA regarding storytelling and the training of trainers format amongst villages queried how the messaging was validated, and how did HPA ensure that the messages given to the community were consistent and correct. HPA responded that with IP groups it is complicated because the story cannot be written down. Therefore, HPA has staff who go to tell the story to the community and then a mentor who helps to ensure the story is told correctly. The story is then corrected as needed and
becomes embedded in the culture, so that all can hear how the story goes and keep re-checking it. The key is to have people on the ground and frequently visiting to ensure the message stays the same. If the story suddenly starts to be changed, or people start to behave in ways that are inconsistent with the messaging, then this is a warning sign and can be addressed.

**Myanmar Council of Churches (MCC)**

MCC felt that the findings from MC and HPA would be very useful for future work in Myanmar. MMC also has long experience of implementing community based malaria control and working in remote areas in 632 villages. MCC shared experience from its own programmes regarding VHW explaining that most VHW are very dedicated and have been working with support from 3DF and now GF for more than seven years. The village people really depend upon them and appreciate their work. It is important to maintain the momentum, as VHW are also very open to moving beyond malaria prevention and also treating additional illnesses. Community attitudes towards VHW are very positive, although there are still some weaknesses. Integrating the knowledge and experience from HPA and MC will be very helpful.

**Transport used by forest workers**

URC requested clarification on the HPA survey regarding the departure and end points that suggested no use of taxis amongst forest workers. HPA responded that the data came from Ratnakiri, from two villages within each district. HPA reiterated that the data was generalized for Ratnakiri only but showed that most forest workers rode bicycles and a high percentage walked. Beyond this, the remaining data requires further analysis, but the key point is that the context has changed and the strategies need to be adapted accordingly. It is important to focus on the approach that works in specific contexts rather than trying to generalize across the country, or across the region.

**Information sharing**

A comment was made regarding the sharing of information with a broader audience than the current partners. As many creative tool and/ideas were being proposed, it would be important to develop a repository for the tools and methodologies to enable others access. WHO was already taking the lead on developing an information-sharing network for publishing and consolidating studies in Cambodia, which would be accessible for all within the next 6–12 months. Beyond Cambodia, WHO ERAR will support the same initiative in other countries if requested.

UNOPS commented that the ‘catalyst for change’ concept presented by HPA, requires a participatory observation approach, not a simple rapid assessment. The issue then was how this can work effectively in an emergency context.
**Engaging the military**

An INGO wondered how easy has it been for Cambodia to involve the military or can the military implement its own programmes with some facilitation by WHO and/or national programmes.

The response was that it is quite challenging, as it was difficult to get adequate information from the police and military. However, in Cambodia, the military is included in NMCP network, so consent can be obtained. The military is included as an SSR under the GF and therefore receives some funding to support malaria work for diagnosis, treatment and bed nets. The military does report some data, which helps in knowing what needs to be procured in what numbers; however, data is mostly available only at provincial level.

**Incorporating proactive measures for malaria prevention into the planning stages of infrastructure projects**

A question was posed regarding the capacity of countries to be involved in the planning stages of large infrastructure projects for proactive measures against malaria. Cambodia responded that along the Thailand/Myanmar border, there had been positive interactions with the Yuzana Company, with 25,000 migrant workers. This company was open to collaborating and had requested assistance for procurement of quality medicines for the workers. The experience has been that some foreign companies have not been very open although the smaller, family-run companies are much easier to deal with. Building trust and open relationships with these companies is very important.

A related comment from UNOPS was that these initiatives should be related to these mega companies receiving approval for programmes. Corporate social responsibility should be given priority by governments as political commitment at the highest level is required to make this successful. If there is this high-level commitment, the authorities can require this before they give approvals for working. Adjusting/developing appropriate regulatory frameworks for this is critical.

4. **Closing**

Dr. Kazadi thanked all participants for attending and noted that the meeting objective of sharing experiences and best practices in the areas of IEC and BBC at provincial, national and community levels within different risk groups had been achieved. The discussions would inform the development of a regional BCC strategy in the context of AR and multi-drug resistance. He noted that the domain of drug resistance is rapidly evolving and technical efforts require adapting response strategies with the focus being elimination of AR malaria from the region. BCC is a key component of combating drug resistance and messages need to be continually adapted and tailored appropriately to ensure consistency across different groups.
## Annex 1

### Identification of priority areas of action and existing gaps for BCC and IEC

#### Ethnic groups IDP and refugees

<table>
<thead>
<tr>
<th>Group</th>
<th>Methods of access</th>
<th>Current messages</th>
<th>Revised messages in the context of AR</th>
<th>Outreach medium</th>
<th>Perceived gaps</th>
<th>Methods for impact assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnic Groups</td>
<td>Inter-personal by group members;</td>
<td>Standard for</td>
<td>Tailoring and targeting messages to</td>
<td>Traditional Health Providers; religious leaders; elders; mobile vendors; VHV;</td>
<td>Linguistic/cultural communication capacities and targeting;</td>
<td>Adjust/interpret impacts based on barriers to access; predictions and checking of outcomes;</td>
</tr>
<tr>
<td></td>
<td>interpersonal by non-group members;</td>
<td>entire population in country</td>
<td>ethnic group needs; community mobilization with VHV to identify cases and enforce treatment; add monotherapy and adherence messages if not already included; promote health seeking behavior; use ethnic terms/words for diseases or equivalents based on symptoms;</td>
<td>peer groups; health system staff/providers; schools/teachers; radio &amp; video by community members; sms/phone; targeted transit point messaging; marketing/messaging through PPM; social media?;</td>
<td>understanding of communities; beneficiary focused service approach; opposition to change; aligning incentive structures; monitoring of BCC/IEC activities at field level; coordination between partners in material development (standardization); cross-disease alignment/coordination; capacity of health workers to lead BCC/IEC outreach; inputting of ground level knowledge into national IEC/BCC strategy and materials; funding $$$ with costing &amp; planning; lack of cultural sensitization to ethnic cultures</td>
<td>KAP and testing on curriculum; back-checking source of change/information based on BCC model;</td>
</tr>
<tr>
<td></td>
<td>mass media; education curriculum</td>
<td></td>
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</tr>
<tr>
<td>Traditional Oral Cultures</td>
<td>Inter-personal by group members;</td>
<td>Standard for</td>
<td>Same as above</td>
<td>Traditional Health Providers; religious leaders; elders; mobile vendors; VHV; VHF; peer groups; health system staff/providers; schools/teachers; radio &amp; video by community members; sms/phone; targeted transit point messaging; marketing/messaging through PPM; social media?;</td>
<td>(same as above) Mapping of group locations and characteristics; tracking of internal migration;</td>
<td>Same as above; Resonance of stories;</td>
</tr>
<tr>
<td></td>
<td>Mass media</td>
<td>entire population</td>
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</tr>
<tr>
<td>Ethnic Minority Groups</td>
<td>Same as top</td>
<td>Standard for</td>
<td>Same as above</td>
<td>(Same as first row) Prioritize: Traditional Health Providers; religious leaders; elders; use community members (train them); community leaders; use existing knowledge and mechanisms for communication;</td>
<td>Same as above</td>
<td>Same as above; resonance of stories;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>entire population</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Group</td>
<td>Methods of access</td>
<td>Current messages</td>
<td>Revised messages in the context of AR</td>
<td>Outreach medium</td>
<td>Perceived gaps</td>
<td>Methods for impact assessment</td>
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</tr>
<tr>
<td>Ethnic groups in conflict regions</td>
<td>Inter-personal by group members; interpersonal by neutral non-group members; mass media; education curriculum</td>
<td>Standard for entire population. ??</td>
<td>(Same as above. Adjust for actual health system situation and access options;)</td>
<td>Same as above. Emphasis on mass media when access is difficult; prioritize messages. Neutral actor mobilization for message communication;</td>
<td>Same as above. Clarification of jurisdiction/leadership;</td>
<td>Adjust/interpret impacts based on barriers to access; predictions and checking of outcomes; cross-verifying impacts with surrogate and correlated indicators; multi-stakeholder approaches for source of change/information based on BCC model; KAP and testing on curriculum;</td>
</tr>
<tr>
<td>IDP</td>
<td>Inter-personal by group members; interpersonal by neutral non-group members; mass media; education curriculum</td>
<td>Standard for entire population</td>
<td>Same as above. Emphasis on mass media when access is difficult; prioritize messages. Neutral actor mobilization for message communication;</td>
<td>(Same as Ethnic Group) Mapping of group locations and characteristics; tracking of internal migration;</td>
<td>Same as above.</td>
<td>Same as above</td>
</tr>
<tr>
<td>Refugees</td>
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</tr>
<tr>
<td>Camp based</td>
<td>Inter-personal by group members; interpersonal by neutral non-group members; mass media; education curriculum</td>
<td>Standard for entire population.</td>
<td>Tailoring and targeting messages to group needs; community mobilization with VHW to identify cases and enforce treatment; promote health seeking behavior; use ethnic terms/words for diseases or equivalents based on symptoms; Begin message preparing communities for return and services in destination area;</td>
<td>Traditional Health Providers; religious leaders; elders; community leaders; mobile vendors; VHW; peer groups; health system staff/providers; schools/teachers; radio &amp; video by community members;</td>
<td>Linguistic/cultural communication capacities and targeting; understanding of communities; beneficiary focused service approach; aligning incentive structures; monitoring of BCC/IEC activities at field level; coordination between partners in material development (standardization); cross-disease alignment/coordination; funding $$$ with costing &amp; planning;</td>
<td>Same as ethnic group</td>
</tr>
<tr>
<td>Mobile/Returnees</td>
<td>Inter-personal by group members; interpersonal by neutral non-group members; mass media</td>
<td>Standard for entire population</td>
<td>Same as above.</td>
<td>Traditional Health Providers; religious leaders; elders; community leaders; mobile vendors; VHW; peer groups; health system staff/providers; schools/teachers; radio &amp; video by community members; sms/phone; targeted transit point messaging</td>
<td>(Same as Camp Refugees) Mapping of group locations and characteristics; tracking of migration and return;</td>
<td>(Same as Conflict Groups)</td>
</tr>
</tbody>
</table>

Preventative Preventative
Internal seasonal agricultural workers in small / big farms;
'semi-stable' workers in mega or small development projects

<table>
<thead>
<tr>
<th>Methods of access</th>
<th>Current messages</th>
<th>Revised messages in the context of AR</th>
<th>Outreach medium</th>
<th>Perceived gaps</th>
<th>Methods for impact assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employer based</strong></td>
<td>Distribution of BCC from the NMCP</td>
<td>DOT, complete treatment</td>
<td>IPC by VMWs/MMWs/VHVs, environmental health officer</td>
<td>Partial services available (mega companies)</td>
<td>Knowledge Attitude Belief and Practice (KABP)</td>
</tr>
<tr>
<td></td>
<td>Seek diagnosis and treatment within 24h</td>
<td>Ban monotherapy</td>
<td>Outreach activities</td>
<td>Poor record of personnel sickness</td>
<td>Key Informant Interview Absenteeism due to malaria sickness (HRD)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quality RDT/ACT</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Messages tailored to the audience</td>
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<tr>
<td></td>
<td></td>
<td>Acceptance periodic screening</td>
<td></td>
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</tr>
<tr>
<td><strong>Middle/Broker</strong></td>
<td></td>
<td></td>
<td>VCD/CD/animations</td>
<td>Tools updated</td>
<td>Exit interview of passengers for effect assessment</td>
</tr>
<tr>
<td>Transporters</td>
<td>Alert, warning messages that they enter in endemic areas</td>
<td>Alert, warning messages that they enter in endemic areas</td>
<td>Tape messages</td>
<td>More creative media</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Info on where to find services</td>
<td>Info on where to find services</td>
<td>Through loud speaker</td>
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<tr>
<td></td>
<td>Warning on monotherapy/fake medicines</td>
<td>Warning on monotherapy/fake medicines</td>
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<td><strong>HFs/PPM</strong></td>
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<tr>
<td>Entertainment sites/restaurant owners/touch points</td>
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<tr>
<td><strong>Preventative</strong></td>
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<tr>
<td>Employer based</td>
<td>Use ITN/hammock</td>
<td>Use ITN/hammock</td>
<td>IPC by VMWs/MMWs/VHVs, environmental health officer</td>
<td>Partial services available (mega companies)</td>
<td>Knowledge Attitude Belief and Practice (KABP)</td>
</tr>
<tr>
<td></td>
<td>Proper clothing</td>
<td>Proper clothing</td>
<td>Outreach activities</td>
<td>Poor record of personnel sickness</td>
<td>Key Informant Interview Absenteeism due to malaria sickness (HRD)</td>
</tr>
<tr>
<td></td>
<td>Use repellent</td>
<td>Use repellent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transporters</td>
<td>Alert, warning messages that they enter in endemic areas (Cambodia, Thailand)</td>
<td>Scaling up (Myanmar, LAO, VN)</td>
<td>VCD/CD/animations</td>
<td>Tools updated</td>
<td>Exit interview of passengers for effect assessment</td>
</tr>
<tr>
<td></td>
<td>Use ITN/hammock nets</td>
<td></td>
<td>Tape messages</td>
<td>More creative media</td>
<td></td>
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<tr>
<td></td>
<td>Proper</td>
<td></td>
<td>Through loud speaker</td>
<td>Scale up</td>
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<td></td>
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<td></td>
<td>Poster and info at the bus station/jetty/screening points</td>
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<tr>
<td>Group 2: Cross border Seasonal agricultural workers in small/big farms; ‘Semi-stable’ workers in mega or small development projects</td>
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</tr>
<tr>
<td><strong>Screening points/MP/BMP/MC (symptomatic)</strong></td>
<td><strong>EDAT</strong></td>
<td><strong>EDAT</strong></td>
<td><strong>EDAT</strong></td>
<td><strong>EDAT</strong></td>
<td></td>
</tr>
<tr>
<td>Test and treat</td>
<td>DOT at least first dose (standardize patient card), complete and quality treatment, Bilingual messages Benefit of testing and free of charge</td>
<td>Trained supervise malaria volunteer Malaria worker Loud speakers Billboard</td>
<td>Unofficial crossing points Limited timing of crossing Systematic screening Resources (MMMM)</td>
<td>Proportion of pop screened Key informant interview</td>
<td></td>
</tr>
<tr>
<td><strong>Employer based/workplace</strong></td>
<td>Test and treat</td>
<td>Scale up (Lao, VN) Info on ARM (extra careful)-linkage to formal sector, PPM Complete quality treatment (DOT)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Restaurant Owner</strong></td>
<td>Transporter</td>
<td>Border Security Forces</td>
<td>Employer/Work</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Screening points/MP/BMP/MC (symptomatic)</strong></td>
<td>Use ITN/hammock Proper clothing Use repellent</td>
<td>Use ITN/hammock Proper clothing Use repellent</td>
<td>IPC by VMWs/MMWs/VHVs, environmental health officer Outreach activities Billboards/posters/…</td>
<td>Partial services available (mega companies) Poor record of personnel sickness</td>
<td></td>
</tr>
<tr>
<td><strong>Transporters</strong></td>
<td>Alert, warning messages that they enter in endemic areas before crossing the borders (Cambodia, Thailand) Twin-city Use ITN/hammock nets properly</td>
<td>Scaling up (Myanmar, LAO, VN)</td>
<td>VCD/CD/animations Tape messages Through loud speaker Billboard/ Poster and info at the bus station/jetty/screening points</td>
<td>Tools updated More creative media Scale up</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exit interview of passengers for effect assessment MMP prevalence survey</td>
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</tr>
</tbody>
</table>
## Private sector: Individuals or groups in deep forest from nearby villages (few nights / weeks);

<table>
<thead>
<tr>
<th>Method of access</th>
<th>Current messages</th>
<th>Revised messages in the context of AR</th>
<th>Outreach medium</th>
<th>Perceived gaps</th>
<th>Methods for impact assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT</td>
<td>EDT</td>
<td>DOT to receiving the proper treatment.</td>
<td>DOT compliance and follow up (provider and patient)</td>
<td>Poster</td>
<td>Language Barriers</td>
</tr>
<tr>
<td>EDT</td>
<td>EDT</td>
<td>Seeking malaria treatment on time with VMW/MMW you will be cured quickly.</td>
<td>Complete treatment course as advised</td>
<td>Leaflet</td>
<td>Limited intervention</td>
</tr>
<tr>
<td>EDT</td>
<td>EDT</td>
<td>Don’t do malaria self-treatment, you might face drug resistance</td>
<td>Don’t do malaria self-treatment, you might face drug resistance</td>
<td>IPC</td>
<td>Limitation of capacity of deliver</td>
</tr>
<tr>
<td>EDT</td>
<td>EDT</td>
<td>If you have fever, headache and chill have to see the village volunteer</td>
<td>If you have fever, headache and chill have to see the village volunteer</td>
<td>Mass media</td>
<td>Communication skill</td>
</tr>
<tr>
<td>EDT</td>
<td>EDT</td>
<td>Awareness of health provider</td>
<td>Awareness of health provider</td>
<td>Bill board</td>
<td>Political will</td>
</tr>
<tr>
<td>EDT</td>
<td>EDT</td>
<td></td>
<td></td>
<td>SMS</td>
<td>Private sector participation</td>
</tr>
</tbody>
</table>

**Prevention**

| EDT | EDT | DOT to receiving the proper treatment. | DOT to receiving the proper treatment. | Poster | Language Barriers | Private sector participation |
| EDT | EDT | Seeking malaria treatment on time with VMW/MMW/MM/RF you will be cured quickly. | DOT to receiving the proper treatment. | Leaflet | | |

### Prevention

- **Use LLIN/LLIN:**
  - Can help to prevent malaria
  - No mosquito bites no malaria
  - Apply repellent when you work at night time
  - Wear long sleeve to protect mosquito bites
  - Sleeping under a LLIN everywhere, I don’t worry about malaria

- **Bring and sleep under LLIN/LLIN/ITN:**
  - Consistently when you go to forest
  - Prevent malaria to save money

- **Poster**
- **Leaflet**
- **IPC**
- **Mass media**
- **Bill board**
- **SMS**
- **IVR**
- **Sticker**
- **Video clip**
- **Audio messages, clip**
- **Cover’s seat (Bus,..)**
- **Alert sign**

### Inadequate coordination and cooperation

- **Language Barriers**
- **Limited intervention**
- **Limitation of capacity of deliver**
- **Communication skill**
- **Political will**
- **Private sector participation**

### Civil servants operating in forest settings (agronomists, forest rangers)

**Multi-sector collaboration**

- Agricultural and forestry Ministry
- Environmental Ministry
- Ministry of Health
- INGOs
- Academic Institution

**DOT to receiving the proper treatment.**

- DOT compliance and follow up (provider and patient)
- Complete treatment course as advised
- Don’t do malaria self-treatment, you might face drug resistance
- If you have fever, headache and chill have to see the village volunteer
- Awareness of health provider
- Provide treatment based on NTG
- After coming back from forest do the malaria screening

**Poster**

- Capacity building on BCC
- Poster
- Leaflet
- IPC
- Mass media
- IVR
- Sticker
- Video clip
- Audio messages, clip
- Cover’s seat (Bus,..)
- Alert sign
- Information Technology (web, social media twitter)

**Survey**

- Limited intervention
- Communication skill
- Political will
- Private sector participation
- Inadequate coordination and cooperation
- Life saving box (stand by drug + RDT)
- Advocacy among the sectors
### Development of draft M&E and communication strategies

<table>
<thead>
<tr>
<th>Multi-sector collaboration</th>
<th>Prevention</th>
<th>Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural and forestry Ministry</td>
<td>- Use LLHIN/LLIN to prevent malaria</td>
<td>- Bring and sleep under LLHIN/LLIN consistently when you go to forest</td>
</tr>
<tr>
<td>Environmental Ministry</td>
<td>- No mosquito bites no malaria</td>
<td>- Prevent malaria to save working</td>
</tr>
<tr>
<td>Ministry of Health</td>
<td>- Apply repellent when you work at night time</td>
<td>- Capacity building on BCC</td>
</tr>
<tr>
<td>INGOs</td>
<td>- Wear long sleeve to protect mosquito bites</td>
<td>- Poster</td>
</tr>
<tr>
<td>Academic Institution</td>
<td>- Sleeping under a LLIN everywhere</td>
<td>- Leaflet</td>
</tr>
<tr>
<td>- MBA, IOM/INGOs</td>
<td></td>
<td>- IPC</td>
</tr>
</tbody>
</table>

#### Populations crossing borders (Staying overnight)

<table>
<thead>
<tr>
<th>Touch Point (Small Vendor)</th>
<th>Prevention</th>
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</thead>
<tbody>
<tr>
<td>Mobile vendor</td>
<td>- EDAT to receiving the proper treatment</td>
</tr>
<tr>
<td>Middle man or broker (foreman)</td>
<td>- Seeking malaria treatment on time with VMW/MMW/H</td>
</tr>
<tr>
<td>Taxi driver, Boat</td>
<td>- F you will be cured quickly</td>
</tr>
<tr>
<td>Migrant health volunteer/worker</td>
<td>- If you have fever, headache and chill have to see the village volunteer/HF</td>
</tr>
<tr>
<td>Private Provider</td>
<td></td>
</tr>
<tr>
<td>Employer</td>
<td></td>
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<tr>
<td>Village Leader</td>
<td></td>
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<tr>
<td>Immigration police/officer</td>
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</tr>
<tr>
<td>MBA, IOM/INGOs</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Prevention</th>
<th>Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>- DOT compliance and follow up (provider and patient)</td>
<td>- Poster</td>
</tr>
<tr>
<td>Complete treatment course as advised</td>
<td>- Leaflet</td>
</tr>
<tr>
<td>- Don’t do malaria self-treatment, you might face drug resistance</td>
<td>- IPC</td>
</tr>
<tr>
<td>Awareness of health provider</td>
<td>- Mass media</td>
</tr>
<tr>
<td>Provide treatment based on NTG</td>
<td>- Bill board</td>
</tr>
<tr>
<td>If you suspect malaria, don’t be afraid to get treatment service at the HF</td>
<td>- SMS</td>
</tr>
<tr>
<td>After passing the forest, do malaria screening</td>
<td>- IVR</td>
</tr>
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<td></td>
<td>- Sticker</td>
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<td></td>
<td>- Video clip</td>
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<td></td>
<td>- Audio messages, clip</td>
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<td></td>
<td>- Cover’s seat (Bus,..)</td>
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<td>- Alert sign</td>
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<td>- Malaria campaign</td>
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</table>

### Limited intervention

<table>
<thead>
<tr>
<th>Language Barrier</th>
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<tbody>
<tr>
<td>Survey</td>
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### Communication skill

<table>
<thead>
<tr>
<th>Political will</th>
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<tbody>
<tr>
<td>Survey</td>
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</table>

### Private sector participation

<table>
<thead>
<tr>
<th>Inadequate coordination and cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
</tr>
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</table>
## Security forces/border patrol and UN GMS peacekeeping forces

<table>
<thead>
<tr>
<th>Methods of access</th>
<th>Current messages</th>
<th>Revised messages in the context of AR</th>
<th>Outreach medium</th>
<th>Perceived gaps</th>
<th>Methods for impact assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Early diagnosis and treatment and prevention</strong></td>
<td></td>
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<tr>
<td>3/6 month training before deployment</td>
<td>General curriculum on D&amp;T and Prevention (same as NMCP) - Includes treatment adherence</td>
<td>Focus on completing dose and participation on DOT; - Treatment failure is possible and should be monitored; - Return to care if symptoms persist; - Emphasize prevention in AR/border areas</td>
<td>3-day training course on malaria as part of general military training</td>
<td>No standard curriculum on AR - Reaching family of security forces - In urgent response, no training received beforehand - Lack awareness on AR areas (all)</td>
<td>KAP assessment</td>
</tr>
<tr>
<td>Border areas</td>
<td>Same BCC/IEC as target at risk population (Adherence/DOT)</td>
<td>- Awareness on all malaria access points (public/military/VMW) - Prevention in border areas</td>
<td>Radio/bv/billboard</td>
<td>- Not directed toward military; too general - Lack awareness on AR areas (all)</td>
<td>KAP assessment; - Monitor care points/OPD and VMW records</td>
</tr>
<tr>
<td>Military Unit includes focal person</td>
<td>Receive same messages as VMW (3T, DOT)</td>
<td>Provide awareness of 3T - Information on risk areas and EDAT following return</td>
<td>Focal person designated for delivering messages</td>
<td>- No IEC materials provided - Lack awareness on AR areas</td>
<td>- Survey on utilization of focal point</td>
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### UN GMS Peacekeeping forces

| 3-12 month training before international deployment | | | | | |
| Pre-departure procedures | - General curriculum on D&T and Prevention (same as NMCP) | Focus on completing dose and participation on DOT; - Treatment failure is possible and should be monitored; Return to care if symptoms persist | 3-day training course on malaria as part of general military training | No standard curriculum on AR - In urgent response, no training received beforehand - Lack awareness on AR areas (all) | KAP assessment |
| Serving abroad | No messages | - Risk of infection abroad - Malaria signs and symptoms - Screen before returning - Early treatment seeking behavior | Potential: UN medical services - IEC Materials for day-to-day use (calendar, passport cover, etc.) | Cannot control messaging | N/A |
| Arrival in home country | No messages | - Treatment seeking behaviour - Signs and symptoms | Potential: TV/radio/leaflets (target family) | - Difficult to reach them upon return | KAP Assessment |

### Report of an informal consultation
Annex 2

Agenda

Tuesday, 19th August 2014:
Technical Sessions on Development of a draft
Surveillance, Monitoring & Evaluation (SME) Strategy

Objectives and expected outcomes of the meeting
Dr. Bayo S. Fatunmbi, WHO

SME perspectives in ERAR-GMS
Dr. Bayo S. Fatunmbi, WHO

Country SME situation, challenges, country priorities, and way forward: Cambodia
Dr. Siv Sovannaroath, CNM, Cambodia

Country SME situation, challenges, country priorities, and way forward: China
Dr. Zhang Shaosen, WHO/ERAR/NPO (on behalf of the NIPD, China)

Country SME situation, challenges, country priorities, and way forward: Lao PDR
Dr. Bouasy Hongvanthong, CMPE, Lao

Country SME situation, challenges, country priorities, and way forward: Myanmar
Dr. Nay Lynn Yin Maung (on behalf of the National Malaria Control Program)

Country SME situation, challenges, country priorities, and way forward: Thailand
Dr. Prayuth Sudathip, BVBD, Thailand

Country SME situation, challenges, country priorities, and way forward: Vietnam
Dr. Nguyen Quang Thieu, NIMPE, Vietnam

Country group work 1: to identify ERAR SME priorities in national malaria M&E Plan

Wednesday 20th August 2014
Technical Sessions on Development of a draft
Surveillance, Monitoring & Evaluation (SME) Strategy

Country presentations on country SME priorities (Feedback from country group work session)
- Cambodia
- China (Yunnan)
- Lao PDR
- Myanmar
- Thailand
- Viet Nam

Plenary discussion on country SME priorities

Regional ERAR-GMS SME Assessment update
Dr Bayo S. Fatunmbi, WHO

ERAR SME Strategic Framework (draft)
Dr Bayo S. Fatunmbi, WHO
Q&A and plenary discussion
Group work 2: to identify critical gaps, prioritize the regional SME strategies/activities by SME thematic area
Presentation by thematic group and plenary discussion
SME Partners’ mapping and consensus on way forward
Wrap up and closing remarks
Dr Walter Kazadi, WHO

Thursday 21th August 2014

Communications Strategy for the GMS

Objectives of the meeting
Dr. Deyer Gopinath and Mr. Sonny Krishnan

Overview of IEC/BCC strategies in the GMS
Mr. Sonny Krishnan

BCC/IEC strategies, progress & challenges in Northern Myanmar
Dr. Manan Naw Jar, HPA

BCC/IEC strategies, progress & challenges in Lao PDR
Dr Bouasy Hongvanthong, CMPE

BCC/IEC strategies, progress & challenges in Thailand
Dr. Rungrawee Tipmontree, BVBD

BCC/IEC strategies, progress & challenges in Cambodia
Dr. Boukheng Thavrin, CNM

BCC/IEC strategies, progress & challenges in Viet Nam
Dr Nguyen Quang Thieu

Strategic roles for behaviour change communication in a changing malaria landscape in the GMS, the CAP – Malaria experience
Dr. Kheng Soy Ty, CAP-Malaria

Summary of key points

Briefing on Group Work for Day 2 – Four breakout groups
Dr. Deyer Gopinath and Mr. Sonny Krishnan

Friday 22th August 2014

Communications Strategy for the GMS

How to address the low uptake of preventive measures among indigenous communities in the GMS for effective malaria/forest malaria control and elimination
Dr. Daniel Dimick, HPA

Positive deviance – an innovative behavior change approach to reach the poorest and most at risk
Mr. Glaister Leslie, MC

Group Work: Refining and harmonizing key BCC-centered messages addressing key populations at risk/occupational groups:
1. Early Diagnosis and Treatment
2. Prevention
3. Private Sector
4. Migrants and Mobile Populations

Group 1 - 4 Presentations & Discussion
Summary and recommendations
Closing remarks
### Annex 3

#### List of participants

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<table>
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<tr>
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<th>Contact Information</th>
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</table>
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Report of an informal consultation

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The response to combating malaria in the Greater Mekong Sub-region (GMS) has been impressive, however, many challenges remain. Tackling the spread of artemisinin resistance amongst mobile and migrant populations is a key piece of this increasingly complex puzzle. Mobile and migrant populations (MMP) are frequently “hidden” and difficult to access because of geographical, language and cultural barriers. While some information gaps exist, much has been learned in addressing malaria among these groups in recent years. This report describes the actions to be done to control malaria among mobile and migrant workers and other high-risk groups in the GMS, to monitor progress and evaluate the impact of interventions.