INFORMAL CONSULTATION ON MALARIA AND MOBILE AND MIGRANT POPULATIONS: ADDRESSING PRIORITY GAPS IN THE CONTEXT OF MALARIA ELIMINATION IN THE GMS

27–28 October 2016
Bangkok, Thailand
Informal Consultation on Malaria And Mobile and Migrant Populations: Addressing Priority Gaps in the Context of Malaria Elimination in the GMS
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MEETING REPORT

INFORMAL CONSULTATION ON MALARIA AND MOBILE AND MIGRANT POPULATIONS: ADDRESSING PRIORITY GAPS IN THE CONTEXT OF MALARIA ELIMINATION IN THE GMS

Convened by:

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NOTE

The views expressed in this report are those of the participants of the Informal Consultation on Malaria and Mobile and Migrant Populations: Addressing Priority Gaps in the Context of Malaria Elimination in the GMS and do not necessarily reflect the policies of the conveners.

This report has been prepared by the World Health Organization Regional Office for South-East Asia and Regional Office for the Western Pacific for Member States in the respective regions and for those who participated in the Informal Consultation on Malaria and Mobile and Migrant Populations: Addressing Priority Gaps in the Context of Malaria Elimination in the GMS in Bangkok, Thailand from 27 to 28 October 2016.
### ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>APLMA</td>
<td>Asia Pacific Leaders Malaria Alliance</td>
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<tr>
<td>CSR</td>
<td>corporate social responsibility</td>
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<td>ERAR</td>
<td>emergency response to artemisinin resistance</td>
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<td>GMS</td>
<td>Greater Mekong Subregion</td>
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<td>MMP</td>
<td>mobile and migrant population</td>
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<td>MMW</td>
<td>mobile malaria worker</td>
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<td>NMCP</td>
<td>national malaria control programme</td>
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<td>RAI</td>
<td>Regional Artemisinin-resistance Initiative</td>
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<td>UHC</td>
<td>universal health coverage</td>
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<td>WHO</td>
<td>World Health Organization</td>
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SUMMARY

The World Health Organization (WHO) framework for emergency response to artemisinin resistance (ERAR) in the Greater Mekong Subregion (GMS) has a distinct objective to address issues concerning malaria and mobile and migrant populations (MMPs) through technical guidance and coordination efforts. The Global Fund to Fight AIDS, Tuberculosis and Malaria has placed a high priority on MMP and cross-border issues in its Regional Artemisinin-resistance Initiative (RAI) country grants including its Inter-Country Component (ICC). Collectively, these efforts have contributed significantly to the scale-up of efforts to improve the access of MMPs to malaria services, especially in border areas of the GMS.

Within the context of the World Health Assembly endorsement of the Global Technical Strategy for Malaria 2016–2030 (resolution WHA68.2) and the Strategy for Malaria Elimination in the Greater Mekong Subregion (2015–2030), beyond drug resistance containment efforts, the GMS countries have committed to the time-bound goals of malaria elimination. Since the adoption of the World Health Assembly resolution, the GMS countries have moved quickly on developing costed national strategic plans for elimination, translating key principles of malaria elimination into activities for both immediate and short-term implementation. Both the regional and global strategies highlight the critical nature of universal access to malaria prevention, diagnosis and treatment for elimination, and the need to scale up efforts for hard-to-reach populations and in the context of population mobility both within and across country boundaries including migrants.

The GMS countries have now pursued an expansion of activities geared towards MMPs, largely through funding of the Global Fund country grants and RAI ICC. Through various supranational/regional approaches initiated by WHO ERAR and partners, there have also been greater bilateral cross-border initiatives relating to early detection and treatment; information, education and communication/behaviour change communication (IEC/BCC); engagement with the private sector; the armed forces; and regional activities for information sharing. However, persisting challenges remain with regard to MMPs’ access to early diagnosis and treatment and prevention tools, case management practices and surveillance systems that are able to capture MMP cases. Solutions need to be found quickly to remedy these problems and to ensure interventions are adopted within current funding and within country elimination plans, targeting MMPs and other most at-risk populations.
1. INTRODUCTION

1.1 Background

The World Health Organization (WHO) emergency response to artemisinin resistance (ERAR) initiative has a distinct objective to address issues concerning malaria and mobile and migrant populations (MMPs) through technical guidance and coordination efforts. The Global Fund to Fight AIDS, Tuberculosis and Malaria has placed MMPs and cross-border issues as the highest priority in its Regional Artemisinin-resistance Initiative (RAI) country grants as well as in its Inter-country Component (ICC). Collectively, these efforts have contributed significantly to scaling up efforts to improve access to MMPs, especially in border areas.

Within the context of resolution 68.2 of the May 2015 World Health Assembly endorsing the Global Technical Strategy for Malaria 2016–2030 and the Strategy for Malaria Elimination in the Greater Mekong Subregion (2015–2030), beyond efforts to contain drug resistance, the countries of the Greater Mekong Subregion (GMS) have committed to the time-bound goals of malaria elimination. Since the World Health Assembly resolution was passed, the GMS countries have moved quickly on developing costed national strategic plans for elimination, translating key principles of malaria elimination into activities for both immediate implementation and in the short term (five-year strategic plans). Both the regional and global strategies highlight the critical nature of universal access to malaria prevention, diagnosis and treatment for elimination as well as the need to scale up efforts for hard-to-reach populations and in the context of population mobility both within and across country boundaries including migrants.

The GMS countries have now pursued an expansion of activities targeted at MMPs largely due to country grants from the Global Fund and RAI Inter-country Component. Through various supranational/regional approaches initiated by WHO ERAR and partners, there have also been greater bilateral cross-border initiatives around early detection and treatment regimes; information, education and communication (IEC)/behaviour change communication (BCC); engagement with the private sector; the armed forces; and regional activities for information sharing. However, persisting challenges remain with regard to MMP access to early diagnosis and treatment and prevention tools, case management practices and surveillance systems that are able to capture MMP cases. Solutions need to be found quickly to remedy these problems and to ensure interventions are adopted within current funding and within country elimination plans and targeting MMPs and other most-at-risk populations.

1.2 Meeting objectives

The objectives of the consultation were for participants:

1. to review the progress made and current status of implementation with regard to MMPs in the context of multidrug resistance and malaria elimination in GMS countries;
2. to discuss planning and operationalization of key interventions to improve access to malaria services for MMPs in the GMS and appropriate malaria surveillance tailored to MMPs and recommend a way forward for implementation; and
3. to achieve consensus on planning and operationalization of interventions on:
   - access along the mobility pathway for MMPs
   - surveillance tailored to MMPs
   - evaluations for MMP strategies/approaches.

2. PROCEEDINGS

2.1 Opening session

Dr Deyer Gopinath, Medical Officer, WHO Country Office for Thailand, reminded participants that the purpose of the consultation was to review achievements over the past few years and to plan a course for the future. Despite the many challenges that remain, it was encouraging to know that all countries in the GMS and neighbouring regions are on board to work together on solutions for combating the transmission of malaria among MMPs.

Dr Krisada Mahotan, Senior Advisor, Ministry of Public Health, Thailand, delivered remarks on behalf of Dr Jedsada Chokdamrongsuk, Director General, Department of Disease Control. Dr Mahotan noted that close collaboration at the highest national and regional levels of governance, in line with the East Asia Summit decisions, is required to achieve malaria elimination in the GMS. Such collaboration will ensure that any issues that might jeopardize the elimination efforts will be resolved quickly. In addition, governments must look beyond the traditional approaches of national malaria control programmes (NMCPs) to include greater efforts to improve housing and infrastructure development, sanitation, agricultural practices, mobility and nutrition. Universal health coverage (UHC) is one of the health targets of the Sustainable Development Goals, highlighting the global importance now attributed to this issue. Thailand’s strong health system, including universal coverage, and well trained health staff have been pivotal in eliminating diseases such as poliomyelitis (polio), leprosy and smallpox and will continue to be a critical factor for achieving malaria elimination.

Dr Daniel Kertesz, WHO Country Representative to Thailand, reminded participants that WHO ERAR has a distinct objective to address issues concerning malaria and MMPs through technical guidance and coordination efforts. He acknowledged the progress made by the GMS countries in working towards elimination and reiterated WHO’s commitment to continue supporting countries and strengthening implementation of the global strategy for malaria elimination. Dr Kertesz encouraged participants to accelerate their efforts towards developing a collective strategy across all the GMS countries that engages the health and non-health sectors to reach high-risk populations. He also acknowledged the efforts of the ERAR hub and all partners in gaining greater visibility of the issue of migration and mobility in the GMS.

Dr Pedro Alonso, Director, WHO Global Malaria Programme, highlighted the global achievements in fighting malaria since the launch of the new Global Technical Strategy for Malaria 2016–2030. He noted that such achievements represent a golden era in the fight against malaria and that the goals of the new strategy, though ambitious, are achievable.
Elimination must be a country-led effort and is achievable. For example, Sri Lanka was recently certified as malaria free. Of note is that Sri Lanka previously reduced cases to 18 but saw a subsequent increase to 1 million within a short period of time – highlighting the importance of doing the job properly. At least 21 countries could interrupt transmission by 2020. This situation is unprecedented and there are a lot of important lessons that can be applied from other parts of the world to this region. Elimination is central to WHO’s agenda and a revised elimination manual will be launched in the near future as a reference tool for countries. In addition, a strategic advisory group to advise on malaria eradication has been convened. Dr Alonso concluded by noting that lessons from the current consultation would be extremely important not only for the GMS but also globally.

Dr Attila Molnar, Programme Director, Principal Recipient for The Global Fund to Fight AIDS, Tuberculosis and Malaria, United Nations Office for Project Services (UNOPS) Asia Region, noted that UNOPS has been privileged to work with partners in the fight against malaria elimination. Elimination is at the centre of the action in the region and the GMS countries are well positioned to achieve this. Dr Molnar referred to the successful exchange of lessons and good practices at the meeting on therapeutic efficacy studies (TES) on 24–26 November and also to the challenges of resistance to available drugs. He noted that compliance of treatment is important and that guidance from the ERAR hub is critical.

Dr Sovannaroth, NMCP Cambodia, was appointed as Chair and Dr Phetsouvanh, Ministry of Health, Lao People’s Democratic Republic, as Co-Chair for the first day; and Dr Premsri, Department of Disease Control, Thailand, as Chair and Dr Aung Thi, NMCP Myanmar, as Co-Chair for the second day.

The meeting agenda and list of participants are available in Annex 2 and 3, respectively.

2.2 Session 1: Addressing malaria among MMPs through a multisectoral approach for malaria elimination

Panel discussion
1. Moderator: Dr Kevin Palmer
2. Dr Pedro Alonso (Director, WHO Global Malaria Programme)
3. Dr Nenette Motus (Regional Director, International Organization for Migration Regional Office for Asia and the Pacific)
4. Ms Sandii Lwin (Senior Health Advisor, Asia Pacific Malaria Leaders Alliance)
5. Dr Rattanaxay Phetsouvanh (Ministry of Health, Lao People’s Democratic Republic)

Before the plenary discussion, the panel members fielded questions addressed to them separately and gave final comments.

Questions

What are the general perspectives of WHO on the elimination of malaria globally and particularly for this region? How important are MMPs in this equation?
Dr Alonso explained that the 2015 Global Technical Strategy calls for an acceleration of the control and elimination of malaria. It also sets global targets for the reduction of disease and death by 2030 and for the number of countries that should have interrupted transmission by 2030. The strategy places elimination as one of the key targets: elimination meaning the permanent interruption of transmission at a global level and eradication referring to the permanent reduction of malaria globally. In the first eradication campaign, what is now called “elimination” was known as “eradication”.

Countries are now entering a phase of decisively moving towards elimination. In May 2016, WHO released a document that identified global trends and identified 21 countries that could achieve zero cases within the next four years. In terms of the GMS, a subregional strategy was launched in 2015, and national plans have been developed and approved. It is hoped that targets can be achieved as it falls within the global approach to elimination and is especially important because of multidrug resistance. Ten years ago, in response to the threat of artemisinin resistance, WHO and partners launched a response that was geared towards containment. Over the years it became apparent that containment was not sufficient to manage the threat of artemisinin and multidrug resistance, leading to the call by WHO in September 2014 for full elimination efforts in the GMS as the only strategy to successfully eliminate artemisinin and multidrug resistance. Countries have embraced this call and all partners are fully aligning in support of national programmes.

Specifically on MMPs, there are two major issues: (1) securing access to diagnosis and treatment of these populations; and (2) relevance of these groups in fuelling transmission. From an elimination strategy perspective, surveillance is a key pillar: only through surveillance will it be possible to gain more insights into malaria among MMPs and how they fuel transmission.

Given the target of elimination of malaria by 2030 in this region, what are the perspectives on the challenges ahead for countries in terms of migration trends? What is the strategy of the International Organization for Migration (IOM) for the health of migrants in this region and specifically for malaria elimination?

Dr Motus noted that of the more than 1 billion people globally who are on the move, 740 million are internal migrants. In terms of temporary labour migration and the economic dimension, there are six key drivers: (1) economic disparities; (2) demographics; (3) digital revolution; (4) distance; (5) disasters; and (6) demand (labour). The majority of all migrants are temporary, irregular and low-skilled. Addressing the health of migrants requires a holistic approach, looking at health care during their transit and return home. A key area requiring attention in terms of malaria elimination is to better understand patterns of mobility as they impact upon access to health care. In terms of data surveillance it is important to consider how to ensure the inclusion of MMPs into national health-care systems including malaria. For many countries, UHC only includes nationals of those countries, not migrants. The situation is complex as many migrants are highly mobile and therefore difficult to reach. Additional challenges are language and cultural practices as well as legal status with many migrants afraid to visit health centres for fear of being deported.
Addressing the issue of legality requires a multisectoral, horizontal approach. From an IOM perspective, addressing malaria and other public health issues must involve non-health sectors such as energy, infrastructure, transportation, social welfare, isolated populations and so on. Using the evidence available to influence countries to make migrant-inclusive policies will be important. Out of 51 countries that are dealing with malaria, only three have migrant health policies – Myanmar, Sri Lanka and Thailand. Partner malaria programmes may not be reaching the MMPs or effectively meeting their needs. Programmes should be looking towards UHC – and greater advocacy efforts involving governments and also the private sector are needed.

What is the role of the private sector as the major driver for employment and mobility in the engagement of malaria elimination in this region?

Given her extensive experience working with the private sector in Myanmar, Ms Lwin explained that the Asia Pacific Leaders Malaria Alliance (APLMA) is a high-level political advocacy body that is co-chaired by the Prime Ministers of Australia and Viet Nam. There are 22 countries that have signed up to the elimination agenda since 2014 and approval was granted in 2015 for a road map towards elimination, which covers the whole spectrum from Afghanistan to the Pacific and also focuses on countries with highly malaria-endemic areas. In Myanmar, a lot of impetus is given to private sector engagement, which can be attributed to the implementing partners as well as the multipronged approach that engages corporate leaders and private providers.

However, progress is waning. With the drop in crude oil prices, the private sector is less focused on corporate social responsibility (CSR) and more focused on profits, so malaria is no longer seen as an issue. Corporations already committed to investing in CSR are also forced to examine their foundation in terms of investment and are moving away from malaria, while trying to reallocate money to other sectors such as education and women’s empowerment. Therefore, it is necessary to make a convincing case to keep the private sector engaged in low transmission settings. It is very challenging to convince senior management when there are no visible cases. For example, if the oil and gas and plantation sectors are faced with dengue cases but no malaria cases, it may be important to couch malaria under a regional health security umbrella. The tourism sector is the most responsive in terms of stakeholder engagement, although since malaria is bad for business advocacy requires a lot of creativity. As an example, wording is very important: health can be discussed more generally but not malaria per se.

In the context of the Lao People’s Democratic Republic, what are the lessons learnt with MMPs that can be applied to other countries in the region?

Based on the national malaria programme in the Lao People’s Democratic Republic, Dr Phetsouvanh noted that the incidence of malaria in the south of the country is still very high and that the 2011 outbreaks did not follow the classic malaria pattern. There is already a fixed agenda globally that countries have to eliminate both *P. falciparum* and *P. vivax* malaria by 2030, whatever the current situation. In the 10 provinces in the north of the Lao People’s Democratic Republic, there are almost zero cases. However the transmission patterns have changed from 30 years ago in the villages; they mostly now occur in forests where access to patients is difficult. While most of the country is moving towards elimination, transmission in
the five southern provinces still needs to be reduced. In order to do this and to address the needs of MMPs, it is necessary to engage all government sectors including the ministries of labour, social welfare and defence, as well as all the relevant nongovernmental sectors. This will allow for better planning and development of more appropriate strategies. Many strategies have been tried over the years – for example hammock nets and repellents – but the Lao people have not adopted them widely, so the multiple approaches do not appear to be working.

It is critical to understand the routines of MMPs so that malaria posts can be positioned better and meet their needs. In order to achieve this, there must be regular discussion to hear the voices of the MMPs and to better understand MMP networks and points of origin to get information to them. In addition, full support from partners and donors is necessary. Nevertheless, the Lao People’s Democratic Republic is in full agreement that each country must lead the malaria elimination effort.

**Final comments**

Dr Alonso added with regard to engagement of the private sector that neither the economic argument nor the burden of disease arguments are viable nor relevant as countries approach elimination because of competing risks such as dengue and Zika. Elimination requires a different mindset. It will have to be paid for and led by countries. The Global Fund may not be available to support countries walking the so-called last mile. Therefore, governments will have to take the leadership, especially with respect to the private sector. Providing access to MMPs regardless of legal status is critical as elimination calls for extraordinary measures at national and global levels.

Dr Motus emphasized that in order to reach MMPs, it is necessary to use robust mobility tracking tools and make use of the available technology (e.g. GIS, emergency and disaster response, displacement tracking apps) to understand patterns of mobility to convince policy-makers and the private sector. Migrant communities themselves also need to be engaged. One recommendation is to have representatives from the migrant communities participate in the next consultation to hear their perspectives and what services would be useful. Another is to conduct focus group discussions with MMPs to better understand the barriers that prevent them from accessing health services. All this work should be based on evidence to ensure that a convincing case can be made to policy-makers and the private sector.

Ms Lwin noted that it is important to look at new ways to convince corporate leaders and business owners of the importance of keeping the focus on malaria. In the Lao People’s Democratic Republic, for example, there is an oil company measuring lag indicators (frequency rate) and forward indicators (number of houses with indoor residual spraying), so there may be ways to incorporate needs from the elimination agenda into target setting of corporate agendas. It may be possible to expand it into corporations’ work in community involvement. From a policy perspective, lobbying for health impact assessments to be mandatory in environmental impact assessments, for example with the Asian Development Bank and World Bank, could be a possibility. The Asian Development Bank has initiated health impact assessments in many GMS countries and it is an important component, particularly within the context of large-scale infrastructure projects. It is also important to look at other approaches that have worked globally. For example, in Rwanda zip lines are
used to deliver blood and medical supplies. This type of approach could be trialled. In addition, the private sector could be tapped for supply chain management and logistics, as has happened with Coca Cola for bed net distribution in Africa. Given the financial restrictions, it will be important to leverage multiple approaches that do not cost a lot for the private sector and provide a win–win situation for both sectors.

Dr Phetsouvanh stated that a lot of work is required to build trust with the private sector and that it would require support from neighbouring countries and donors. The most urgent requirement is surveillance. Local analysis is important and those on the ground need to understand the purpose of the information. This will require resources for training.

Discussion

Issue of returning soldiers from UN Peacekeeping forces

Discussion concerned the responsibility towards returning soldiers from UN missions as well as about how the UN could improve its tracking of malaria resistance in the context of soldiers going to endemic areas in Africa and then returning to non-endemic areas. In addition to the UN, it was agreed that countries also had the responsibility to test and treat returning soldiers.

Availability of documents outlining high-level political commitments to elimination (specifically APLMA)

Ms Lwin reminded participants of a 2014 declaration signed by 22 countries on elimination, which is available on the APLMA website. Within this roadmap, there is also a high-level monitoring scorecard tool that is used to monitor progress, which is currently being finalized and will soon be accessible. APLMA has annual meetings, which representatives from ministries of health, finance and foreign affairs and other relevant ministries attend. In terms of advocacy, in 2017, the APLMA Envoy, the former Minister of Health of Indonesia, will be making country visits to have high-level engagement with country leaders.

2.3 Session 2: Taking stock of efforts on malaria among MMPs

Dr Deyer Gopinath

The numerous meetings and workshops that WHO ERAR along with other partners has convened over the last three years have had positive outcomes. Not only has it given the issue of MMPs more visibility but it has also influenced funding decisions through the Global Fund and other donors active in the GMS. Workshops and information exchanges on malaria and MMPs including cross-border issues have also helped to empower decision-making at local levels. WHO ERAR has come up with guidance and toolkits (http://who.int/malaria/areas/greatermekong/toolkits/en/) that are available for countries to consult as they work towards developing programmes that are more migrant inclusive.

Mobility patterns are complex and it is important to look at the time and speed of mobility and the nature of how people move. Policies and legal frameworks also require more attention to ensure that they are migrant sensitive. There is a need to assess how well the strategies currently being used are working and to question whether they can be improved or scaled up.
There are common measures that can be used across countries and further discussion is needed on this. It is also clear that the approaches used need to be more anticipatory, for example looking at land use, infrastructure projects, projections on numbers of labourers, patterns of mobility and so on. The strategies should be looking 1–2 years into the future rather than simply reacting to an increase in cases.

2.3.1 Definitions and mobility pathway

Dr Deyer Gopinath

Mobility in the region:
- is largely occupationally/economically driven;
- is within borders and across borders;
- involves multiple factors and complex dynamics of movement; and
- affects different subsets of moving populations.

Various definitions of “mobile”, “mobility” and “migrant” were presented. There is no universally agreed upon definition of “migrant” and there are also many different interpretations of these terms within the GMS. If there are no barriers in access to health services within a country, the definition of a migrant probably has more practical importance in a migrant-receiving country than a migrant-sending country. Where definitions become important is in addressing issues to improve health access and equity for migrants and developing an integrated and holistic response. Ensuring effective implementation of UHC and policies outside the health sector (e.g. social welfare, transportation, immigration and labour) requires at least a common understanding of migration and mobility pathways. Looking to the future, as the strength and maturity of malaria surveillance systems improve, individual patient profiles and case investigations will detail indigenous versus imported cases and sufficient information on origin, source and focus of transmission to trigger appropriate responses.

Discussion

Despite the barriers in many countries preventing migrants from accessing health services, health services still need to be capturing information on MMPs. It is important to move away from a focus solely on borders to ensuring that all providers and partners make their services migrant friendly or migrant focused. The MMPs are not the problem; it is the services that have not adapted. While MMPs should still be a focus, it is in the context of targeted service delivery. A common broad definition should be agreed upon and included in all health information systems in the region so that all services are accessible. It must be about health service access – not just malaria. Disaggregation of indigenous and imported cases, however, remains important for malaria.

2.3.2 Twin cities collaboration in the GMS and the malaria patient card

The twin cities collaboration aimed to increase accessibility of appropriate malaria services for cross-border MMPs. This approach has the specific objectives of: (1) promoting awareness of health services; (2) facilitating MMP access to malaria services; and (3) promoting a supportive environment for services. Activities include a quarterly meeting at district/health facility levels; consistent monthly data sharing between the twin districts;
capacity-building activities; and joint events, for example World Malaria Day activities. A bilingual patient card was developed during the malaria containment project along the Thai–Cambodian border. This was helpful in tracking malaria patients (particularly cross-border patients) and ensuring complete follow-up. The card gives instructions on taking complete doses of antimalarial drugs and returning for follow-up appointments (D1, D2, D3, D7, D28) at a health facility on either side of the border. The bilingual patient card has similarities to the so-called health passport strategy used in southern Africa for HIV treatment among mobile populations. The key challenges of this patient card strategy along the Thai–Cambodian border have been: (1) time and commitment taken to properly record details on the patient card; (2) lack of complementary approaches – directly observed treatment (DOT)/follow-up conducted by health staff in Thailand but not by village malaria workers in Cambodia; and (3) patients not always returning on follow-up appointment days.

Discussion

While the patient card can be useful, it does not replace a strong surveillance system. For example, case investigation and follow-up remain the main strategy and the health/malaria card, while useful, stays with the health facility.

The malaria patient card can offer a lot of benefits in recording a patient’s details that are useful in the elimination context, that is residence, travel history, treatment history and glucose-6-phosphate dehydrogenase (G6PD) status. For example, there will not be a need to have repeat testing of G6PD status if the result is recorded in the patient card in the first instance.

2.3.4 Vector control and personal protection of MMPs: matrix guidance on the best options and methodologies

Dr Michael Macdonald, WHO ERAR hub

As countries move towards elimination, it is important to understand the impact on transmission of rapid ecological changes like forest clearance and agricultural development. The two primary vectors in the GMS – Anopheles minimus and Anopheles dirus – have a narrow ecological range and are found mostly in forest and forest-fringe areas. Programmes must target the right vector in the right place and at the right time by assessing the “receptivity” of a location, if there is local transmission, and if yes what vectors are responsible. This begins with an epidemiological investigation of diagnosis plus travel history, assessment of the environmental determinants for particular vectors, and mosquito collection and identification as part of an overall risk area stratification and mapping that may also use remote sensing for environmental correlates. The current control and personal protection options include indoor residual spraying and long-lasting insecticide-treated nets (LLINs). Programmes must ensure the LLIN is the right product, a type that will actually be used by the target population as opposed to untreated nets from the market, and that the appropriate distribution, promotion and policies are in place to ensure access. Viet Nam continues to successfully conduct community retreatment campaigns of conventional nets. Evidence for the epidemiological impact of topical repellents is mixed and also depends if the intended outcome is for long-term use for community impact or short-term exposure for personal protection. Countries need better data on topical repellent acceptability, compliance
and epidemiological impact among their target populations. Other treated materials –
tarpaulins, blankets, hammock nets and clothing – have been trialled, but face challenges of
adequate epidemiological effectiveness data, market size and stability, and national
registration in order to become more accessible.

Discussion

Personal protection approaches must be culturally appropriate. For example, if the at-risk
population finds LLINs impractical or undesirable, other treated materials may be an option.
There may be evidence of entomological impact but often still a lack of evidence of
epidemiological impact. All GMS countries currently distribute LLINs and Myanmar also
conducts indoor residual spraying, but better monitoring for preference, use and net durability
or spray quality is required.

In order to prevent outdoor transmission, insecticide-treated materials (including uniforms),
topical repellents and wearable spatial repellents are options currently under development.

2.3.5 Insights and ideas: Population Services International malaria worksite programme
Dr Henrietta Allen, GMS Malaria Director, Population Services International

The Population Services International (PSI) presentation was structured around the meeting’s
three group work questions: How can access to diagnosis and treatment for MMPs be
improved? How can access to vector control and personal protection be improved? And what
are the minimum surveillance and responses needed? PSI outlined its regional plantation
programme to reach mobile and migrant workers, describing the sequential steps to set up
malaria test-and-treat services on worksites. There are several strategies currently in use, or
being piloted, to increase testing rates.

Regional plantation programme
1) Mapping: Full census mapping surveys are the first step prior to establishing malaria test-
and-treat services on worksites. Designed to locate all worksites and to assess key
variables including health-care provision on-site, malaria test-and-treat services,
accommodation, and seasonal peaks and flows in workers, PSI has now completed
mapping in three of the four key GMS countries: In Cambodia, full worksite assessments
in 571 sites (of 1475 sites screened) were completed in 2014; 146 sites (of 988 sites
screened) were assessed in 2016 in Myanmar’s Tier 1 area with data from the remaining
areas currently under analysis; 296 sites (of 12 633 sites screened) were assessed in 2016
in Viet Nam’s central provinces; and mapping is scheduled to begin shortly in the Lao
People’s Democratic Republic. In Cambodia, very few worksites (20%) were found to
provide health care to their workers. Most typically only had a box of medicines – of
which only 20–30% contained malaria drugs and tests.

2) Embed, train, stock and support on-site mobile malaria workers: Multiple visits with
each worksite targeted for enrolment into the programme are then scheduled to build up
trust with the authorities, allowing PSI to gain access and approval to set up health
services. A contract is signed and a number of workers (depending on the size of the
worksite) are identified, trained and stocked with quality assured artemisinin combination
therapies (ACTs) and rapid diagnostic tests (RDTs) followed by monthly support visits
by PSI staff to collect data from the mobile malaria workers (MMWs) on the number of suspected and confirmed cases. PSI currently manages 200 MMWs embedded in 129 worksites in seven of the highest caseload provinces in the north-east of Cambodia with mirror programmes being established in the neighbouring countries.

3) Epidemiological survey: In 2013, an epidemiological survey to assess infection levels in workers was completed as part of the strategy in Cambodia using RDTs, dried blood spots and qualitative interviews with workers. A polymerase chain reaction (PCR) prevalence of 1% was found in both the wet and dry surveys, a lower than expected finding, which prompted a review of the strategy and resulted in a number of approaches to increase the testing rates that PSI is currently using or piloting:

a. Deworming days: The National Center for Parasitology, Entomology and Malaria Control (CNM) and PSI organize two annual deworming days for workers and their families. It provides the opportunity to offer voluntary malaria screening and treatment at the same time. Between the two rounds to date, the number of workers presenting for voluntary testing has risen from 8% to 13% (887 out of 11,162 and 1,468 out of 10,932).

b. Malaria plus: Bundling malaria services with other health products (PSI has added oral rehydration salts plus zinc and condoms to the worksites in Cambodia) addresses vital unmet health needs beyond malaria for workers and their families, and critically means that workers continue to use their on-site MMW.

c. Cash for fevers: This is a new concept that is currently being piloted with a small financial incentive (US$ 0.50) to every positive case located, with the same amount to bring in co-forest goers or family members who may have been infected at the same time.

d. Screening on entry and exit: Screening workers when they arrive for work at a site will also be piloted with the advantage that malaria-free worksites will be better protected from re-infection and onward transmission.

e. MMW incentives: PSI’s MMW are now only paid if they test a minimum number of workers on-site each month.

Minimum surveillance and responses needed

A Malaria Case Surveillance app, co-developed with CNM to report cases into a central data repository, was designed for health providers, especially MMWs, to report the number of suspected, confirmed and treated patients whom they see. The tool is now being rolled out across the full network and is being adjusted for use in the Lao People’s Democratic Republic and Myanmar.

PSI’s optimum package of interventions to ensure transient and permanent workers on remote and difficult to access worksites has five elements:

1) threat assessments, primarily rapid vector assessments to assess transmission on-site combined with standard travel history taking for all workers;
2) quality-assured incentivized 24-hour test-and-treat services on all sites;
3) integrated baskets of products beyond malaria;
4) screening and treatment for all workers on entry, and if feasible on exit from the site; and
5) immediate case reporting and scoring of all MMW case management skills using phone apps and robust quality assessment tools.
Discussion

PSI ensures that all providers deliver quality services through the use of a tablet-based tool to assess the case management skills of all providers, including MMWs, in its networks. The tool benchmarks each provider against a standard set of questions, provides feedback on behaviours needing improvement, and ranks the provider into Class A, B or C, which allows tracking and improvement of their services over time.

On pricing of commodities, all products, including the ACTs, RDTs, oral rehydration salts plus zinc and condoms are provided free of charge on the worksites in Cambodia. The recommended price for a RDT test is US$ 0.25 and US$ 0.40–0.60 for a full quality-assured ACT course. Stock-outs in particular play havoc with stable prices and monitoring is typically through mystery client surveys.

2.3.6 MMPs and surveillance
Dr Deyer Gopinath

Some relevant terms from the WHO Malaria Terminology glossary were presented, followed by key components of malaria case and entomological surveillance such as: mandatory notification; case-based malaria surveillance; case, foci investigation and response; entomological surveillance; outbreak detection and response; and vigilance. Approaches to case investigation and surveillance were presented and Dr Deyer reiterated that countries should accelerate efforts to improve routine surveillance systems focusing on case investigation. While the integration of all data is important, ultimately it is case investigation that will help determine imported from indigenous cases and enable the disaggregation of data accordingly.

Key conclusions included the following:
1) All efforts must be made to accelerate the maturity of national malaria surveillance systems to enable disaggregation of routinely collected data to capacity implementing case investigations.
2) Capacity should be strengthened at all levels of the NMCPs for data analysis and response through the development of surveillance guidelines, standard operational procedures and training.
3) Support should be given for detailed surveillance, including mapping in selected cross-border areas where it is required.
4) Data management and sharing of standardized malaria data in the GMS should be improved through the creation of a regional data-sharing platform, and strengthening of countries’ ability to manage and share data.

Discussion

The idea of developing a regional protocol to assist in determining whether cases are imported or local was raised. It was agreed that this could be in the form of a checklist.
2.3.7 Evaluation of MMP approaches
Dr Siddhi Aryal, Asia Director, Malaria Consortium

Dr Aryal invited participants to consider the approach of locating the malaria response within programmes on poverty alleviation, clean water, ending hunger, improving education, fostering peace and justice, mainstreaming gender, and ensuring responsible production and consumption. This approach would help link responses in silos within the overall SDG 3 together. Dr Aryal reiterated the importance of evaluating what has been achieved to date in the extensive work on malaria as well as the myriad strategies and interventions implemented in the Asia-Pacific region to inform future innovation. Key conclusions and priorities were: early diagnosis and complete treatment with effective drugs and reliable reporting to identify case origin; need for NMCP support to more stakeholders (nongovernmental and civil society organizations) to play key roles in diverse contexts and levels of transmission within governments’ existing malaria elimination plans; linking of malaria response with national responses to poverty, clean energy/water, hunger, education, peace and justice, gender, and responsible production and consumption; expanded roles of VHWs; and extension of case management. A key focus must be to assess the implementation of a surveillance strategy that focuses on MMPs as well as to incorporate key elements of evaluation approaches, nationally and regionally, in a potential evaluation framework.

Plenary discussion

Discussion centred on the value of community-based diagnosis and treatment with RDTs and ACTs. Engaging social scientists to help develop new approaches and ways of embedding access to treatment in MMP communities could be useful. There is a need for more rigorous assessments on the cost-effectiveness of active and reactive case detection interventions. The primary health-care basket of products developed by PSI is a good way forward and more information will be available after the pilot. There is also need for rigorous evaluations of the myriad interventions that have been developed to date. While there is always a role for innovation, it is important not to lose sight of the value of simpler interventions. There is a balance that needs to be found between developing very high-tech approaches and ensuring adequate support for simple community services. While each country has its own strategy for MMPs, there is value in assessing how these strategies can be aligned. Regarding CSR, progress will require changing mindsets and equal partnership, for example approaching the private sector with low-cost CSR activities and leveraging their skills such as supply chain management.

The role of health volunteers in case investigations was also discussed. WHO confirmed that case investigation at the village level is largely a task for health facility staff (through NMCPs), but it was feasible to consider volunteers as well. In Cambodia, volunteers alert the health facilities by SMS – and soon via an app – so there is potential for volunteer involvement.

Another comment concerned the accuracy of case investigation when patients do not want to provide information (MMPs). This presented a difficult situation. In Cambodia, cases are classified according to the catchment area of a health facility, which then investigates after being alerted by MMWs. The key point is that MMPs must be convinced that they will receive proper diagnosis and free appropriate treatment.
2.4 Conclusions from day 1

From the WHO perspective, two major issues require focus:

1) Access must be secured to diagnosis and treatment for MMPs and also to preventative measures and information.

2) From an elimination strategy perspective, surveillance is a key pillar. It is only through surveillance that insights will be gained into malaria among MMPs and the fuelling of transmission.

Other issues highlighted include:

1) Access to health care
   - MMPs not the problem; services have not adapted
   - MMPs during their transit and return home
   - Understanding patterns of mobility
   - Human rights issue: MMPs have every right to receive health care, regardless of country of origin, legal status, etc.
   - Entry point for NMCPs: include MMPs in the primary health-care system and UHC with involvement of non-health sectors (energy, infrastructure projects, transportation, social welfare, etc.)
   - Access alone not enough: culturally and linguistically appropriate approaches
   - Voices of MMPs: their needs and wants, usefulness and appropriateness of plans

2) Definitions
   Common broad definition needed, but with country-specific context of MMP typologies that helps programmes to organize targeted and accessible service delivery packages

3) Private sector in the context of malaria elimination
   - Malaria not an issue for the corporate sector; economic downturn means that CSR is not a priority
   - Low disease burden: moving away from malaria and reallocating money to other sectors such as education and women’s empowerment; new approaches needed

4) Surveillance
   - Critical to improve surveillance systems to identify imported and indigenous cases, and perform case investigations
   - Innovative tools needed to aid surveillance supporting, but very simple and basic community services (test, treat, track, educate, etc.) in some areas should not be neglected
   - Local capacity needed to understand rationale and importance of collecting and reporting information, and need to respond promptly

5) Vulnerability and MMPs
   Approaches need to be more anticipatory: land use change, infrastructure project databases, projections of number of labourers patterns of mobility, etc.; looking 1–2 years ahead and not waiting and reacting to increase in cases/outbreaks

6) Receptivity and MMPs
   - Risk stratification essential: identifying most at-risk transmission locations and vector control and personal protection strategies/tools based on evidence and acceptance of MMPs
   - Impact of MMP interventions: robust evaluations of MMPs interventions/strategies across the mobility pathway and across countries need to be performed as soon as
possible to guide future scale-up; a pilot intervention on MMPs should have an adequately funded evaluation component at the design stage itself.

7) Financing for elimination
The economic and burden-of-disease arguments do not hold. They are no longer relevant for elimination especially with competing risks such as dengue and Zika. Governments need to change their mindset as countries will have to pay for and lead this effort and sustain the last mile. This translates to leadership and governance issues, for which the governments have to take the lead with the private sector.

2.5 Session 3: Operationalization of interventions

On Day 2, the participants were divided into four working groups to discuss some of the major topics. The group presentations are available in Annex 1. Salient discussion points of the group work are summarized below.

2.5.1 Group 1: Improving access to malaria diagnosis and treatment for MMPs

- Additional studies on LLINs for rubber tappers were requested as there were doubts about the actual level of usage, particularly in the dry season.
- MMPs are mostly engaged in worksites, but more needs to be done to ensure worksite facilities/services and interventions are in place.
- The community-led approach and the top–down approach in the design and implementation of MMP strategies need to be balanced. If communities including health/malaria staff at the local levels do not have sufficient knowledge of the dynamics of malaria transmission, expecting them to contribute to a strategy may be difficult.

2.5.2 Group 2: Improving access to vector control and personal protection for MMPs

- GIS mapping and remote sensing was consistently highlighted as being affordable, available and useful as a tool to effectively target transmission foci especially among MMPs.

2.5.3 Group 3: Surveillance and response tailored to MMPs

- An annual mapping of MMPs to give a real picture of the situation was recommended, given the dynamic nature of migration.
- Funding flexibility is important to be able to respond to the dynamic nature of working with MMPs, mapping, data collection, providing timely interventions, etc.
- There is need for better defined objectives, more focused strategies on data sharing across borders where there is high mobility and effective mechanisms for collaboration depending on malaria phasing (i.e. advanced control versus elimination phase).

2.5.4 Group 4: Evaluation

- Bringing knowledge to practice – that is, while evaluations are critical, ensuring that the lessons learnt can be applied is essential rather than just having exhaustive documentation that is difficult to access or digest. A simple database of evaluations with key words that can be searched for lessons learnt would be ideal as an easy repository for evaluations.
• An evaluation methodology for MMP interventions to date needs to be agreed across the GMS countries – with commonalities of measurement but keeping country-specific contexts as well. The evaluation should have parameters to capture involvement of end users/beneficiaries in the design of interventions as well as end-user benefits.

3. CONCLUSIONS AND RECOMMENDATIONS

The consultation came to the following conclusions and recommendations:
1) The extensive work and discussions that occurred during the course of the two-day consultation will need to be consolidated.
2) The working groups came up with exhaustive to-do lists that will need to be reviewed and processed so that WHO can offer some useful and tangible tools that countries can use. Linking the four thematic areas will be a priority. For example, the access and surveillance issues are very important and it will be important to look at how to integrate these issues – access to diagnosis and treatment, prevention.
3) Developing a comprehensive strategy of access for MMPs within the broader elimination framework is a priority. There needs to be follow-up on the progress with the recommendations surrounding the evaluations as well as additional discussions, but action should be taken as soon as possible.

3.1 Closing remarks

Dr Lin Aung, Coordinator (Emerging Diseases), Department of Communicable Diseases, WHO Regional Office for South-East Asia, reminded all participants that the health of migrants is now high on the political agenda. At the recent World Health Assembly in Geneva, reporting on the health of migrants was a key agenda item. The World Health Assembly also addressed the need for better data, health requirements of migrants, legal frameworks in recipient countries and collaborative networks of international dialogue. The irregular status of migrants severely hinders their access to health care and reiterated WHO’s strong recommendations to all Member States to make their country’s health systems inclusive for migrants. This should include disaggregated information on the health needs of migrants as this is an SDG target and goal. Thailand has already developed a migrant health policy, as has Sri Lanka; Bangladesh has adopted a health-sensitive policy for migrants; and Myanmar is in the process of doing so.

Dr Aung also referred participants to the New York Declaration for Refugees and Migrants that was adopted on 19 September 2016 regarding the health of migrants. On 22 September 2016, there was an additional discussion at the United Nations General Assembly, which IOM and WHO attended, on the health of migrants. In February 2017, IOM and WHO will host a second global forum on the health of migrants in Sri Lanka. Until then, WHO has been asked to conduct an analysis of the current situation and future goals. The 2016 WHO publication *End in Sight: Accelerating the End of HIV, Tuberculosis, Malaria and Neglected Tropical Diseases in the South-East Asia Region* will be shared with all participants.

Dr Rabindra Abeyasinghe, Coordinator, Malaria, Other Vectorborne and Parasitic Diseases Unit, WHO Regional Office for the Western Pacific, emphasized the importance of all
partners continuing to work together to improve the collective understanding of the dynamics of transmission and the dynamics of MMPs within the malaria elimination context and drug resistance. Such understanding would help to enact better strategies for control and elimination. WHO’s position has been outlined in the *Regional Action Framework on Malaria Control and Elimination in the Western Pacific (2016–2020)*, which was endorsed by country ministers and has the goal of accelerating elimination and addressing the challenge of improving access to prevention and treatment. In addition to a focus on migrants, WHO is committed to working with Member States to come up with a better definition and understanding of mobile groups in order to better serve these populations. Understanding the malaria burden among the internal and international migrants and their contribution to continuing transmission would help inform the regional response to improving access to prevention and treatment services for malaria.

On behalf of the WHO regional offices, Dr Abeyasinghe acknowledged the support of IOM, the Global Fund and UNOPS who have worked hand in hand with WHO and ERAR, which is transitioning into an accelerated malaria hub in January 2017. Continuing to work together is important to accelerate the elimination of malaria in the region.

Dr Pedro Alonso, Director, Global Malaria Programme, WHO, also thanked the Royal Thai Government for hosting the informal consultation. He emphasized how valuable the discussions and sharing of experiences have been on the critical subject of malaria elimination. At the global level, the consultation would help move the broader agenda of migration and health forward, including issues identified by the participants relating to access, evaluation, and operational research.

Dr Alonso reminded participants that they should not withhold action. As Shakespeare said, “Action is eloquence” and with the major task of achieving malaria elimination still ahead, the call to action was more urgent than ever. That is, all partners need to take what was consolidated during the consultation and translate it into real action in order to achieve the goal of malaria elimination in the Asia-Pacific region.
ANNEX 1. GROUP WORK OUTCOMES

Group 1: Improving access to malaria diagnosis and treatment for MMPs

Conceptual frameworks adopted from this consultation:

(a) Mobility framework

![Origin - Transit - Destination Diagram]

- Pre departure education/preparedness [L]
- Bilingual messaging, Patient card [C] [T]
- Taxi drivers/bus operators [C] [L]
- Military camps [L]
- Malaria Clinic [T]
- Malaria post, border malaria post [T] [M] [Y]
- Screening points [C] [M]
- Border crossings malaria corners [T] [M]
- Plantation malaria workers [C] [M]
- Private sector accreditation [M]
- Forest malaria prevention strategies [L]
- Military camps and outpost/patrols [L]

(b) Mobility and Migration

Within national borders [INTERNAL MOBILITY]
- remote (forested) populations including ethnic minorities/groups
- civil service officers (agronomists, forestry staff, etc.)
- security forces, border patrol’s population (with/without their families)
- internally displaced population (IDP) and refugees
- foreigners and tourists

Across national borders [OUTBOUND MOBILITY]
- foreigners and tourists
- United Nations (UN) soldiers (from/to Mekong Subregion) as part of UN peacekeeping operations abroad.

Within and/or Across borders [INTERNAL MIGRATION AND/OR [OUTBOUND MIGRATION]]
- seasonal agricultural workers (individuals or families) in farm plantation (rubber, cassava, oil palm, coffee, corn, orchards, sugar cane, bamboo, etc.)
- populations involved in development projects (hydroelectric dams, road construction, pipelines, gem mines, logging, gold and mineral extraction, etc.)

Across national borders [OUTBOUND MIGRATION]
- populations crossing borders (seeking economic opportunities - migrant workers and individual business)
- national populations back home from employment abroad (remote, not cross border)
Barriers for accessing services for MMPs

- What needs to be understood on providing the access to diagnosis and treatment services to the MMPs across mobility pathways?
  - Type of MMPs - Official/unofficial/nationality
  - Insufficient history of travel
  - Legal barriers
  - Socio-cultural barriers
  - Language barriers
  - Locations - within geographic access (<2km) to health services, hard to reach
  - Inadequate information on Knowledge attitude and practices on malaria

Interventions at the site of origin

- Site of Origin?
  - Any places within the country
  - Mapping of the fixed sites of origin (military, construction sites, companies...etc)
- What are the interventions at the site of the origin of MMPs?
  - Preparedness
    - National routine IEC/BCC interventions incorporating the migrant health & malaria
    - Pre-departure education on symptoms/signs, diagnosis and treatment services, right for diagnosis and treatment, at the bus/train terminals/ports via IEC/BCC services (tools, bulletin, announcement in public, languages, pictorial IEC for illiterate etc?)
    - Message to promote testing for fever for those MMPs whose status of mobility is unknown
  - Formal and informal channel to get involved with recruiting agency, labor force

Interventions at the site of origin (contd)

- What are the interventions at the site of the origin of MMPs? (contd)
  - Screening for departing police/militaries/construction company workers (within/outside) countries, test/treat (from high transmission to low transmission)
  - Establishing the call centre (with international toll free numbers, Interactive Voice Response, multi-language) for providing information on the malaria and sites for diagnosis and testing in countries (Laos, India, diseases of public importance)
  - Standard package (prophylaxis, stand by treatment, LLIN, repellent (?), long sleeves shirt)

- Who are targeted through these interventions? -- All types of MMPs

- Where to target – high transmission?, low transmission?
Interventions at the transit point

- What are the possible transit points? (transit points ?)
  - Bus/train/taxi terminals, airport, sea port, border crossing points (formal and informal/focal sites) restaurants/pubs/café, hotels/guest house, IDP/ refugee camp, entertainment venues/karoke, etc....

- What are the objectives for interventions at transit point?
  - Screening fever cases, testing, treating for malaria, and linkages with health care facilities
  - Providing malaria information

- What are the interventions?
  - Education IEC/RCC services- IEC/RCC materials (bilingual) distribution through Malaria Screening Points with messages on symptoms, diagnosis, treatment, information on the available sites for malaria services (Diagnosis and Treatment), toll free number for getting malaria information (if call centre for health info is established)
  - Screening for malaria and test/treat/report through (if from endemic areas, all suspected should be tested)
    - Malaria screening post (MSP) in bus/train terminal (malaria post/border post/ malaria clinic.... ?)
    - Malaria screening posts at Airport/Sea port- thermal detectors (In collaboration with DoPH)

Interventions at the transit point

- What are the interventions? (contd.)
  - Standard package (prophylaxis, stand by treatment, LLIN, repellent (?), long sleeves shirt)
  - Linkages to the health facilities (Public health facility, private, VMWs/Mobile Outreach team/ VHV/backpack workers, Malaria posts, Mobile etc)
  - Phone call (VHV, call centre ?) and/or automatic SMS to ensure completion of treatment and that we care (effectiveness?, evaluations required)

- How to track?
  - Difficult but not impossible
  - By- issuing the malaria patient card. Minimum information required-phone number
  - Smart phones
  - Coordination with destination...

Interventions at the destination

- What are the possible destinations?
  - Mapping of the MMP/sites
    - Worksites
      - Plantation/farms, construction, mines, wood cutting industry, hydropower, car workshops
      - Challenges- unregistered worksites, smaller industries/farms, military camps
    - Religious sites-Pagoda, Church
    - Military bases
    - IDP/Refugee camps
    - Mobile population
    - VHV networks/informer to map the hard to reach MMPs who are beyond the catchment of the health care services
      - Any others?

- What is the objectives?
  - To provide access to free diagnosis and treatment services and malaria information
Interventions at the destination

What are the approaches/interventions to provide access?

• Worksites
  • Advocacy with owners for worksite interventions by NMCP/partners
  • Intensified case finding/Active case detection/Reactive case detection (..including families) in the worksites (screen/test/treat/educate)
  • MMP representative as a malaria worker for MMPs
  • Capacity building of the health staff/MMP representative(s) in worksites for malaria services/health services
  • Free/subsidized Malaria services in private sectors
  • Advocate to utilize National social security fund to pay for health including malaria
  • Screening of the police/soldiers post deployment
  • IEC/8CC messages to increase testing and to avoid discrimination to MMPs, basket of integrated services (albendazole, zinc tablets, ORS,..)

Interventions at the destination

What are the approaches/interventions to provide access? (contd..)

• MMPs other than worksites
  • Education
    • Bill boards- highways, remote community entry points, forest entry
    • Automatic sms messages once the sim card is inserted
  • Points (eg. malarious area- warning signs), sign board for VMW/VHV at their houses
  • Community case management through VMW/informal private health services providers (?) in hard to reach areas, establishing referral linkages to health facilities
  • Routine Mobile Malaria/General health outreach Clinic
  • Standby treatment to forest goers

Interventions at the destination

• What are the enabling environment to improve access to MMPs?
  • Expand health services/fill the vacant post in existing facilities to provide access
  • Legislative action to promote MMPs to access free services irrespective of their status formal/informal/nationality..etc)
  • Inter-sectoral collaboration- transport /immigration/ legal/finance/ agriculture/ forestry/ industry/miners/defense/home affairs etc.
  • Cross border collaboration
  • Multilingual IEC/8CC messaging
  • Cross border information sharing
  • TES studies focusing MMPs
  • Any others?
Group 2: Improving access to vector control and personal protection for MMPs

Conceptual framework adopted from this consultation:

**Solving the problem**: best practices and recommendations

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<th>Threat Assessment/Receptivity</th>
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<th>LLINS/ITNs access</th>
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<th>Interventions</th>
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Group outcomes

The group enjoyed a rich discussion around three questions to explore solutions to the problems of insufficient vector control and personal protection for MMPs. The first question focused on risk area stratification, delineation of transmission foci and receptivity for resumed transmission; the second on improving LLIN or ITN access for the at-risk populations; and the third on appropriate interventions. Discussion points included the following:

1) Determining transmission foci and monitoring receptivity for transmission

Individual countries provided information about their risk area stratification and delineation of foci. All countries are using GIS tools for mapping endemic areas to varying levels of detail. All are based on epidemiological information, while some, including those of Viet Nam and Myanmar, are also beginning to incorporate environmental information such as forest cover and topography. Entomological information linked to the risk area stratification is very patchy. Some NMCPs, such as in Myanmar and Viet Nam, are training subnational malaria offices with the open GIS software. It was noted that national strategic plans and funding proposals in a traditional “control” programme are often written to maximize the reach to the potential at-risk populations and deliver as many LLINs as possible over the largest possible area. Shifting to elimination means programmes need to change their mindset to continually reduce the size of the at-risk populations through better entomological/epidemiological data and foci reduction.

2) Improving LLIN/ITN access to the at-risk populations

All countries widely distribute free LLINs to at-risk populations. In addition to the standard LLIN, some countries have piloted distribution of extra nets to families of forest-goers, treated hammock nets and LLIN-loan schemes for plantation workers in at-risk locations. There was extensive discussion on the utilization of the freely distributed LLINs in the common situation where untreated nets in a variety of styles, colour and size are available in the market, and may be preferred over the LLIN in specific contexts. While there is
qualitative information on “net preference”, there is less quantitative information on actual “net use” of the different brands that could be used in procurement decisions.

3) Appropriate interventions, new tools for personal protection and vector control among MMPs

Finally the group considered additional tools for personal protection and vector control beyond the traditional LLINs. This included the special needs of military and security forces who may be out on patrol at night, rubber tappers in at-risk locations, people sleeping in farm huts, and other situations where LLINs may be difficult or impractical to use. Some of these additional technologies, including insecticide-treated uniforms or clothing and insecticide-treated hammocks and hammock nets, are being trialled by the military and nongovernmental organizations. Topical repellents have been mentioned by many countries and are sometimes included in “forest packs” for at-risk populations. There have been a number of extended term topical repellent trials in the region, but they have not shown significant impact. The impact may be different for individual personal protection for short-term exposure, but data to make recommendations are insufficient. Challenges for other tools that have been used successfully in refugee situations, such as insecticide-treated plastic sheeting and permethrin-treated sleeping cloths, were also discussed, but these are not available for trial as they are not part of the WHO recommendation nor the Global Fund procurement. In some countries, national registration issues give rise to problems of accessing products. More data are needed on these supplemental tools so that recommendations can be made, registration facilitated and access improved.

Summary of the key messages:

1) **Targeting**: Give the right products and focus them geographically to hone in on malaria transmission foci and the truly at-risk populations, especially within the limits of funding available.

2) **Listen to people**: Use socially and culturally localized approaches (human-centred design) and practical solutions; otherwise products will not be used and are therefore 100% ineffective.

3) **Devolve decision-making power**: Decision-making power needs to be at the lowest administrative levels in each country. Give greater flexibility to procure materials that are appropriate (insecticide-treated clothing, sheets, etc.) as some products are approved under complex emergency contexts.

4) **Monitor, evaluate and move forward**: Learn fast, adapt and go again.

5) **Capitalize on GIS technologies**: Incorporate spatial and temporal analysis tools.

6) **Continuous entomological surveillance and monitoring**: Surveillance systems should include vector information.

7) **Mobility pathway**: Analyse origin, transit and destination. How to reach MMPs effectively along the pathway will continue to be key to understanding the rhythm of community movements to provide services at key touch points and times (forest edge entry points at market days, etc.).
## Group 3: Surveillance and response tailored to MMPs

<table>
<thead>
<tr>
<th>Minimum data set to be collected</th>
<th>Origin</th>
<th>Transit</th>
<th>Destination/Worksite</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Where were you two weeks ago? (Travel history)</td>
<td>1. To do risk assessment (of the place of origin) to have a local understanding of mobility patterns, risk</td>
<td>1. Days of fever?</td>
<td></td>
</tr>
<tr>
<td>2. If the person is at a different place, information should be shared to the place</td>
<td>2. Screen (detect) and report the people upon arrival and return (Screening data)</td>
<td>2. Sleep here past 2 weeks. If no, where?</td>
<td></td>
</tr>
<tr>
<td>3. Establish hotline to report</td>
<td>3. Establish hotline/ e-reporting</td>
<td>3. Anyone living/working with you has fever?</td>
<td></td>
</tr>
<tr>
<td>4. Data center (epi data, ento data, HF information, information on VHV, etc..)</td>
<td>4. Innovative measures to adapted to local situation</td>
<td>4. Still here in 2 weeks?</td>
<td></td>
</tr>
<tr>
<td>5. Data sharing from opposite side (origin – destination)</td>
<td>5. Data sharing from opposite side (origin – destination)</td>
<td>5. Data sharing from opposite side (origin – destination)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsible person for notification</th>
<th>Origin</th>
<th>Transit</th>
<th>Destination/Worksite</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Existing HC system including I/NGOs</td>
<td>1. Formal and informal private sector (especially pharmacies) in addition to existing HC system</td>
<td>1. Malaria volunteer</td>
<td></td>
</tr>
<tr>
<td>2. Village authority</td>
<td>2. NGOs</td>
<td>2. Worksite Malaria Worker</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Defense/uniform services</td>
<td>3. Outlet (Pharmacy, public or private clinic)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Anyone authorized to provide RDT+ACT</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Self-reporting</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsible person for investigation</th>
<th>Origin</th>
<th>Transit</th>
<th>Destination/Worksite</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Existing HC system including I/NGOs</td>
<td>Depending on the situation, information will be passed to the place of origin or destination.</td>
<td>Existing HC system</td>
<td></td>
</tr>
<tr>
<td>2. Village authority</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsible person for response</td>
<td>Origin</td>
<td>Transit</td>
<td>Destination/Worksite</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------</td>
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<td>----------------------</td>
</tr>
<tr>
<td>Existing HC system with the support of I/NGOs</td>
<td></td>
<td></td>
<td>1. Existing HC system</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>2. Case investigation from local NMCP (local facilities)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Analysis at local level</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. ROC investigation, notification to another NMCP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5. Reactive case detection, ACD, periodic activities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reporting mechanism</th>
<th>Origin</th>
<th>Transit</th>
<th>Destination/Worksite</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Paper based, e-reporting</td>
<td>1. Paper based, e-reporting</td>
<td>1. Phone based: application (country compatible?) or SMS</td>
<td></td>
</tr>
<tr>
<td>2. As close to the real – time as possible</td>
<td>2. As close to the real – time as possible</td>
<td>2. Paper-based to the near reporting/health facility</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other activities</th>
<th>Origin</th>
<th>Transit</th>
<th>Destination/Worksite</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To provide education to the community at the origin to come and test at HF/VMWs whenever he/she comes back from an endemic area/worksite.</td>
<td>1. To provide education to the traveler at the origin to come and test at HF/VMWs whenever he/she comes back from an endemic area/worksite.</td>
<td>1. Community engagement including worksite management</td>
<td></td>
</tr>
<tr>
<td>2. Cross-border collaboration</td>
<td>2. Cross-border collaboration</td>
<td>2. Malaria day 28 follow up to include PCR (as per national guideline and resources permitting)</td>
<td></td>
</tr>
</tbody>
</table>
Group 4: Evaluation

Evaluating activities targeting MMPs

- The aim of evaluating MMP targeted activities is to inform partners and countries on the potential continuation and scale-up of an activity.
- Per definition, any pilot activity should include an evaluation component in the design.
- At the moment, a number of activities are ongoing where evaluation has not been included in the design. To help us move forward and inform partners and countries which activities should be scaled-up, countries should draw up a list of promising activities that should be evaluated.
- WHO should guide and facilitate this process of evaluation and ensure lessons learned are shared across the region.
- At the regional level this driven by a group of entities that are can evaluated based on an objective list of criteria and contextual understanding.
- At country level, specific partners may be best suited to support the evaluation for a specific set of activities.
- The country recommendation of promising activities should be done in time to inform the concept note development for the 2018-2020 Global Fund. This should be revisited every second year.

Evaluating activities targeting MMPs

- From an operational perspective, it would be most practical to evaluated by the objective of the activities (for instance providing testing and treatment at work sites). These activities will often differ by origin, transit and destination. However, evaluating using OTD pathway will be difficult and costly.
- Criteria for evaluation should not be too demanding in terms of quantitative data but also rely on qualitative data. Whatever the type and source of data this should be high-quality, sound data to facilitate a rigorous evaluation.
- Criteria should include: relevance, community representation, stakeholder collaboration, ethical soundness, replicability, effectiveness, efficiency (include cost-benefit analysis), and sustainability.
- Donor recognition of the importance of M&E is crucial. All project focused on MMP should have a minimum of 10% allocated to evaluation.
## ANNEX 2. AGENDA

### Day 1
27 Oct 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Presenter/Facilitator</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00–08:30</td>
<td>Registration of participants</td>
</tr>
<tr>
<td>08:30–08:45</td>
<td>Welcome remarks</td>
</tr>
<tr>
<td></td>
<td>Opening address</td>
</tr>
<tr>
<td>08:45–09:45</td>
<td>Objectives and expected outcomes of the meeting</td>
</tr>
<tr>
<td></td>
<td>Introduction of meeting participants</td>
</tr>
<tr>
<td></td>
<td>Nominations of chair and co-chair</td>
</tr>
<tr>
<td></td>
<td>Group photograph</td>
</tr>
<tr>
<td>09:45–10:00</td>
<td>Tea/Coffee break</td>
</tr>
<tr>
<td>10:00–12:00</td>
<td>Session 1: Addressing malaria among mobile and migrant populations through multisectoral approach for malaria elimination</td>
</tr>
<tr>
<td></td>
<td>Panel discussion</td>
</tr>
<tr>
<td></td>
<td>1. Dr Pedro Alonso (Director, WHO Global Malaria Programme)</td>
</tr>
<tr>
<td></td>
<td>2. Dr Nenette Motus (Regional Director, IOM Regional Office for Asia and Pacific)</td>
</tr>
<tr>
<td></td>
<td>3. Ms Sandii Lwin (Senior Health Advisor, APLMA)</td>
</tr>
<tr>
<td></td>
<td>4. Dr Rattanaxay Phetsouvanh (Ministry of Health, Lao People’s Democratic Republic)</td>
</tr>
<tr>
<td></td>
<td>Deyer G (WHO)</td>
</tr>
<tr>
<td>12:00–13:00</td>
<td>Lunch</td>
</tr>
<tr>
<td>13:00–15:00</td>
<td>Presentations for reflection for Day 2:</td>
</tr>
<tr>
<td></td>
<td>Malaria patient card [Group 1]</td>
</tr>
<tr>
<td></td>
<td>Vector control and personal protection for MMPs</td>
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<td></td>
<td>Worksite approaches [Group 1 &amp; 2]</td>
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<td></td>
<td>Populations at risk, foci and surveillance tailored to MMPs [Group 3]</td>
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<tr>
<td></td>
<td>Suggested/Proposed evaluations of MMP approaches [Group 4]</td>
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<tr>
<td></td>
<td>Sokomar Nguon (CAP Malaria)</td>
</tr>
<tr>
<td></td>
<td>Michael Macdonald (WHO consultant)</td>
</tr>
<tr>
<td></td>
<td>Henrietta Allen (Regional Health Advisor, PSI)</td>
</tr>
<tr>
<td></td>
<td>Deyer G (WHO)</td>
</tr>
<tr>
<td></td>
<td>Siddhi Aryal (Asia Director, Malaria Consortium)</td>
</tr>
<tr>
<td>15:00–15:20</td>
<td>Tea/Coffee break</td>
</tr>
</tbody>
</table>
### Session 3: Operationalization of interventions

**Introduction**

Four working groups to discuss [A] – [D] below.

**Group 1:**

[A] Improving access to diagnosis and treatment
- Strengthening diagnosis and ensuring continuity of service: Mobility pathway and timing of interventions – screening points, malaria posts, mobile/migrant worker, mobile teams, etc.

*Reference documents: [1], [4], [5]*

**Group 2:**

[B] Improving access to vector control and personal protection
- Best practices and recommendations for:
  1. Determining risk of transmission (receptivity)
  2. Choosing best options for personal protection and vector control

*Reference documents: [3], [4], [5]*

**Group 3:**

[C] Surveillance and response tailored to MMPs
- Minimum essential data (MED) on MMPs for Surveillance – data elements and indicators for advanced control and elimination phase

*Reference documents: [1], [4]*

**Group 4:**

[D] Evaluation
- Evaluation of MMP approaches in malaria programmes in GMS countries – suggested objectives, key data elements

*Reference documents: [2]*

#### Day 2

**28 Oct 2016**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter/Facilitator</th>
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<tbody>
<tr>
<td>08:30–09:00</td>
<td>Summary of Day 1 and agenda for Day 2</td>
<td>Deyer G (WHO)</td>
</tr>
<tr>
<td>09:00</td>
<td><strong>Session 3: Operationalization of interventions</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Four working groups to discuss [A] – [D] below.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Group 1:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[A] Improving access to diagnosis and treatment</td>
<td>Badri Thapa (WHO)</td>
</tr>
<tr>
<td></td>
<td><em>Strengthening diagnosis and ensuring continuity of service: Mobility pathway and timing of interventions – screening points, malaria posts, mobile/migrant worker, mobile teams, etc.</em></td>
<td>Xiao Hong Li (WHO)</td>
</tr>
<tr>
<td></td>
<td><em>Reference documents: [1], [4], [5]</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Group 2:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[B] Improving access to vector control and personal protection</td>
<td>Michael Macdonald (WHO consultant)</td>
</tr>
<tr>
<td></td>
<td><em>Best practices and recommendations for:</em></td>
<td>Henrietta Allen (Regional Health Advisor, PSI)</td>
</tr>
<tr>
<td></td>
<td>1. Determining risk of transmission (receptivity)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Choosing best options for personal protection and vector control</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Reference documents: [3], [4], [5]</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Group 3:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[C] Surveillance and response tailored to MMPs</td>
<td>Md Rahman (WHO)</td>
</tr>
<tr>
<td></td>
<td><em>Minimum essential data (MED) on MMPs for Surveillance – data elements and indicators for advanced control and elimination phase</em></td>
<td>Kevin Palmer (consultant)</td>
</tr>
<tr>
<td></td>
<td><em>Reference documents: [1], [4]</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Group 4:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[D] Evaluation</td>
<td>Siddhi Aryal (Asia Director Malaria Consortium)</td>
</tr>
<tr>
<td></td>
<td><em>Evaluation of MMP approaches in malaria programmes in GMS countries – suggested objectives, key data elements</em></td>
<td>Charlotte Rasmussen (WHO)</td>
</tr>
<tr>
<td></td>
<td><em>Reference documents: [2]</em></td>
<td></td>
</tr>
<tr>
<td>10:00–10:15</td>
<td>Tea/Coffee</td>
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</tr>
<tr>
<td>12:00–13:00</td>
<td>[group work cont.]</td>
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</tr>
<tr>
<td>15:00–15:15</td>
<td>Tea/Coffee</td>
<td></td>
</tr>
<tr>
<td>15:15–16:15</td>
<td>[group work cont.]</td>
<td></td>
</tr>
<tr>
<td>16:15–17:00</td>
<td><strong>Group presentation – 10min &amp; 5min Q&amp;A</strong></td>
<td>Facilitators</td>
</tr>
<tr>
<td></td>
<td><strong>Session 4: Conclusions and recommendations:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consensus on planning and operationalization of interventions on:</td>
<td></td>
</tr>
</tbody>
</table>
1. Access along mobility pathway for MMPs
2. Surveillance tailored to MMPs
3. Evaluations for MMP strategies/approaches

17:00 Way forward and Close

Workshop reference documents


[7] Population mobility and malaria: review of international, regional and national policies and legal frameworks that promote migrants and mobile populations access to health and malaria services in the Greater Mekong Subregion (Cambodia, Lao People’s Democratic Republic, Myanmar, Thailand and Viet Nam)
# Annex 3. List of Participants

## 1. Participants

<table>
<thead>
<tr>
<th>Country</th>
<th>Name</th>
<th>Title and Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bangladesh</strong></td>
<td><strong>Dr M.M. Aktaruzzaman</strong></td>
<td>Deputy Program Manager, Mal &amp; VBDC. Program Manager, BAN-MAL Director of Health Services Mohakhali, Dhaka, Bangladesh Tel.: +88 0 17 1130 2584 Email: <a href="mailto:mmaktaruzzaman93@gmail.com">mmaktaruzzaman93@gmail.com</a></td>
</tr>
<tr>
<td><strong>Bhutan</strong></td>
<td><strong>Mr Tobgyel</strong></td>
<td>Deputy Chief Program Officer Vector Borne Disease Control Program Department of Public Health (based in Gelephu) Gelephu, Bhutan Tel.: +975 1760 4363 Email: <a href="mailto:rwtogyel@yahoo.com">rwtogyel@yahoo.com</a></td>
</tr>
<tr>
<td><strong>Cambodia</strong></td>
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<td>Deputy Director National Center for Parasitology, Entomology and Malaria Control Corner street 92-93, Trapeng Svay Village, Phnom Penh Thmei Phnom Penh, Cambodia Tel.: 855 10 316 306 Email: <a href="mailto:huch.cnm@gmail.com">huch.cnm@gmail.com</a>; <a href="mailto:huch@cnm.gov.kh">huch@cnm.gov.kh</a></td>
</tr>
<tr>
<td></td>
<td><strong>Dr Siv Sovannaroth</strong></td>
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</tr>
<tr>
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</tr>
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</tr>
</tbody>
</table>
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