MEETING REPORT
English only

Emergency Response to Artemisinin Resistance in the Greater Mekong Subregion
Partners’ Forum 2016

Convened by:
WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR THE WESTERN PACIFIC

Phnom Penh, Cambodia
21 – 22 November, 2016

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NOTE

The views expressed in this report are those of the participants of the Emergency Response to Artemisinin Resistance in the Greater Mekong Subregion Partners’ Forum 2016 and do not necessarily reflect the policies of the conveners.

This report has been prepared by the World Health Organization Regional Office for the Western Pacific for Member States in the Region and for those who participated in the Emergency Response to Artemisinin Resistance in the Greater Mekong Subregion Partners’ Forum in Phnom Penh, Cambodia from 21 to 22 November 2016.
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Artemisinins / Drug resistance / Malaria-prevention and control / Mekong valley
1. INTRODUCTION

1.1 Background and summary

The Emergency Response to Artemisinin Resistance (ERAR) in the Greater Mekong Subregion (GMS) (2013-2015) was launched in 2013 to contain the spread of drug-resistant malaria parasites and provide life-saving tools for all populations at risk of malaria.

The ERAR Partners’ Forum has been held annually to share progress and lessons learned among partners and stakeholders, and to ensure political and financial commitments are sustained. This year’s meeting was held at the Royal Raffles Hotel in Phnom Penh, Cambodia from 21-22 November and was the last to be held as part of the ERAR initiative. In response to the evolving malaria drug resistance situation and the changing malaria landscape, WHO has recommended accelerated elimination of the disease in the GMS; the Malaria Elimination Strategy for the Greater Mekong Subregion (2015-2030) was launched in 2015 and will guide regional efforts going forward.

Part of this year’s forum was dedicated to discussing the transition of the regional hub from focusing on ERAR to supporting accelerated elimination. The new hub, tentatively to be called the WHO Mekong Malaria Elimination Hub, will continue to support country ownership and coordination of partner efforts to accelerate malaria elimination from the GMS.

1.2 Meeting objectives

The objectives of the meeting were:

- To provide updates on implementation progress of the ERAR Framework;
- To provide technical and operational updates on WHO policies and strategies on diagnosis, treatment, vector control, surveillance, and response;
- To discuss the transformation of ERAR Hub in to an Elimination Hub to coordinate malaria elimination efforts in the GMS; and
- To reach a consensus on partner coordination of elimination efforts in the GMS.

2. PROCEEDINGS

2.1 History, background, challenges, and progress to Artemisinin resistance in the GMS

The ERAR was launched in 2013 to strengthen current work and increase cross-border collaboration on containing resistance and eventually eliminating malaria. Work through the ERAR contributed to an 84% decrease in malaria deaths across the GMS between 2012 and 2015, and a 54% decrease in malaria case incidence during this same time period.

But even while this work was underway, additional pockets of resistance emerged independently in new geographic areas of the subregion. In parallel, there were reports of increased resistance to artemisinin-based combination therapy (ACT) partner drugs in some settings. To address the changing malaria landscape, the Strategy for Malaria Elimination in the Greater Mekong Subregion (2015 – 2030) was launched with the aim of eliminating all species of human malaria across the GMS by 2030, with priority action targeted to areas where multi-drug resistant malaria has taken root.

The ERAR Partner’s Forum held in November 2016 marks the final meeting under the ERAR framework. In 2017, the technical hub established to support ERAR will transition to support ongoing national and regional efforts, as outlined in the Strategy for Malaria Elimination in the GMS.
2.2 ERAR in GMS: successes, challenges and proposed solutions

Over the last three years, every country in the GMS has seen a significant reduction in malaria illnesses and deaths. Building a strong partnership of stakeholders was one of the ERAR’s biggest accomplishments.

Challenges remain that will need to be addressed as the regional hub transitions to focus on elimination. Country leadership must be strengthened, particularly as burden is significantly decreased. Other key priorities include:

- Promoting high level and multi stakeholder engagement to keep malaria elimination high on the agenda and ensure mutual accountability;
- Strengthening existing malaria surveillance systems in their transition towards malaria case-based and entomological surveillance as core intervention, and continuing to prioritize the surveillance of treatment efficacy;
- Coordinating and synergizing case detection and management, disease prevention and vector control interventions in-country and across programmes and sectors;
- Planning and implementing capacity strengthening activities (training, mentoring and supervision);
- Keeping an independent score of sub regional progress in malaria elimination, including the monitoring of drug & insecticide susceptibility.

2.3 Panel discussion: GMS Countries

A panel with national malaria programmes managers from Cambodia, China, Lao PDR, Thailand, and Vietnam discussed national progress and what must be done to move forward. Overall, there is a high level of commitment and attention to malaria in GMS countries. WHO’s ERAR project was important to mounting a joint coordinated response to multidrug resistance, including ACT resistance across the region. The GMS partnership has matured over time, translating into high quality programme interventions that include strengthened surveillance, good cross-border collaboration, and improved access to malaria commodities and services for migrant and mobile populations. Now, all national malaria strategic plans in GMS countries have been revised and reoriented towards elimination.

Discussion

- Regional funding for malaria is likely peaking; the global malaria community must use the resources it has more efficiently, and financial support must remain sufficient for countries in the elimination phase (in some cases, malaria funding has already been reduced as a result of low case numbers).
- Country leadership and ownership is critical to success and is not as strong as it needs to be in some countries. Countries must prioritize malaria as a key issue until elimination has been achieved, and actively lead elimination efforts and mobilize resources.
- A strong partner environment has been very powerful to help countries reach their goals, but it also creates some challenges: too many meetings and separate bodies can create inefficiencies and duplicate efforts. To streamline efforts, the region should have one strategic and operational plan, one coordinating body, and one monitoring and evaluation plan. Additionally, other ministries and sectors should be increasingly brought into the efforts.
- Surveillance needs to be massively strengthened and integrated into existing health systems wherever possible; sharing of data generated by countries and the private sector must be improved. Data will be critical for eliminating the last parasites in low-transmission areas.
• Services for migrant and mobile populations must also continue to be improved.
• High quality technical support is needed, particularly as countries assume increased ownership of efforts. This includes experts from within GMS countries. Facilitating cross-country exchanges of experiences would also be beneficial.
• Being able to respond and change drug policies quickly is going to be one of the most important issues going forward.

2.4 Panel Discussion: partners and stakeholders
Representatives from BMGF, APLMA, USAID/PMI, and UNOPS participated in a discussion around achievements, lessons learned, and expectations from partners going forward.

There was consensus that the WHO, through ERAR, helped ensure that GMS malaria efforts were technically sound and evidence-based, and that WHO should continue in this role. Partners agreed that no one country in the GMS was likely to eliminate malaria alone, and thus, the regional hub established through the ERAR was critical to success and a good forum for sharing ideas and lessons learned across the region.

Partners felt WHO has provided critical data and new evidence that helped set the vision for malaria elimination in the GMS, and provided good guidance on how to implement that vision. The GMS now has a clearly defined elimination agenda, and countries have unified around this cohesive strategy. In addition, the global updates provided by WHO are seen by partners as very useful.

Discussion
• Countries must be leading efforts from the very beginning and there must be better accountability to hold leaders to this commitment.
• Ensure that lessons learned are documented, and that activities shown to have an impact are prioritised and included in applications for funding.
• There needs to be better data for decision-making. More work must also be done to support countries not only own their data, but to help them analyse and use data for programmatic actions.
• A clearer definition of roles is needed. WHO’s role is one of technical support and coordination. Yet, in terms of managing expectations, there is simultaneously a sense of partners taking over WHO’s role/mission creep – and an expectation that WHO should do more than it can/should. There is also a need to reduce the number of meetings, and make the ones that are held more efficient and coordinated.
• Efforts must be better organized to avoid duplication and minimize the gaps. For example, national malaria strategic plans are often developed and then forgotten. There is a need to map out which partners are doing what, identify and address the gaps, and improve coordination of stakeholders working on those issues in a given country. It could be useful to ensure that the activities planned under the national malaria strategic plans are coordinated across borders.
• Partners must work to better understand and tailor efforts to unique country situations to better support countries in what they need to deliver.
• WHO prequalification processes should be streamlined so that tools can be put into use faster.

2.5 Global Technical Strategy and malaria elimination Field Manual
The Global Technical Strategy (GTS) is based on three pillars: ensuring universal access to prevention, diagnosis and treatment; accelerating efforts towards elimination and attainment of malaria-free status; and transforming malaria surveillance into a core intervention. However, significant gaps in funding and programmatic coverage threaten progress; funding will need to
triple from current levels, up from US$ 2.7 billion to US$ 8.7 billion by 2030. Additionally, approximately one in four children in sub-Saharan Africa are still living in a household without at least one insecticide treated mosquito net or protection from indoor residual spraying, 60 million malaria cases go undiagnosed and treated annually, and 15 million pregnant women do not receive a single dose of IPTp. These gaps must be addressed for the GTS targets to be achieved.

Revision of the malaria elimination field manual began in New Delhi in August 2015 and will be released in 2017. The revised version will serve as a framework to guide countries to adapt their national strategic plans to elimination, addressing all malaria-endemic countries and providing a continuum of malaria transmission from very high to very low. The framework makes explicit the critical requirements and programmatic aspects needed to achieve elimination and identifies steps countries can take to accelerate progress.

2.6 SEARO regional strategy for malaria elimination
SEARO is the region with the second highest malaria burden globally, after Africa. Over the years, malaria mortality has significantly decreased, and cases have been cut in half. Sri Lanka (2016) and the Maldives (2015) have recently been certified as malaria-free; Bhutan is aiming to be certified in 2018. However, achieving a malaria-free Asia Pacific by 2030 will be a challenge, particularly in high burden countries. Resistance to antimalarial drugs and insecticides are a concern, as is decreasing national financing and heavy international dependence. Additionally, the malaria burden is shifting to people left behind and those in border areas. The new *Strategy for Malaria Elimination in the South East Asia Region (2016 – 2030)* is aligned with the GTS, and will be presented to the SEARO technical advisory group and SEA Regional Malaria Programme Managers and Partners early 2017; the plan will be launched during World Malaria Day.

2.7 Regional action framework for malaria control and elimination in Western Pacific
The regional action framework for the Western Pacific (2016–2020) is aligned with the GTS, and aims to reduce mortality due to malaria in the region by 50% and morbidity by at least 30% by 2020, relative to 2015 baselines. The RAF identifies the following regional priorities:

- Establish an elimination-capable surveillance system;
- Respond aggressively to and eliminate malaria in areas with multidrug resistance;
- Respond aggressively to and reduce transmission;
- Strengthen technical support to countries and help them address challenges posed by *P. vivax*.

To accelerate progress, national malaria control programmes (NMCPs) have stressed the need for better harmonization of efforts to maximize impact and minimize duplication of efforts. They have also expressed some concerns in regard to the negative impact success has brought in some regions, diverting funds once impact has been achieved.

2.8 Accelerated Malaria Elimination in GMS: A response to multi-drug resistance
The *Strategy to Eliminate Malaria in the GMS (2015-2030)* aims to eliminate *P. falciparum* malaria by 2025 and all species of human malaria by 2030 in the GMS. Priorities include interrupting transmission in areas of multidrug resistance, and in high transmission areas. Scaling up malaria case and entomological surveillance will be a key intervention, and one of the biggest challenges.

Multisectoral engagement will be promoted through the establishment of national elimination committees. Creating an enabling environment through preparing communities for elimination and engaging partners is critical. If significant progress is not made over the next three years, future resources may become increasingly hard to come by.
2.8.1 Setting the scene for elimination: Sri Lanka
Sri Lanka was certified malaria-free by WHO in 2016, showing that elimination is possible using existing tools. The country’s push for elimination began in 2008, after two decades of effective malaria control and a rapid decline in malaria cases. Sri Lanka’s NMCP led the effort from the outset and was able to make steady progress, despite operating during a period of national conflict. The effort was largely funded by the Ministry of Health, with additional support from the Global Fund beginning in 2003.

Success is attributed to a phased, decentralized approach, a strong national health system, and good and equitable coverage with effective interventions. Programme action was local and focal, with activities tailored to individual areas and populations. P. vivax and P. falciparum were eliminated at the same time, due in part to the use of primaquine.

2.8.2 Setting the scene for elimination: China
China had more than 30 million malaria cases in 1930s. Elimination efforts started in 2010; by 2015 only 40 indigenous cases remained in Yunnan Province. Efforts were almost entirely funded by the Ministry of Health, with funding for malaria significantly increased between 2010 and 2015. Good multisectoral cooperation was present from the beginning, with 13 ministries signing the national malaria elimination plan. Case management and reporting was facilitated by effective collaboration with public sector. The country has a robust web-based case reporting system with access at every hospital, as well as their effective 1-3-7 approach to detecting and investigating malaria cases. More than 90% of counties in China had no indigenous cases for three years by 2015, and more than 85% of endemic counties received sub-national certification by 2014, with Shanghai Province certified most recently in 2016. China’s goal is to eliminate the disease nationwide by 2020.

2.8.3 Setting the scene for elimination: Europe
The WHO European region was declared malaria-free in April 2016. Success was due to strong political motivation and good coverage with key interventions. Intensive vector control measures (particularly indoor residual spraying with a strict total coverage of all active foci) combined with quality disease management activities were applied to decrease and halt malaria transmission. Case- and foci-based malaria surveillance and reporting systems were fully operational and investigations focused on ascertaining whether transmission was still taking place in an area. Appropriate training helped to build capacity on elimination and maintain high levels of national expertise. Particular emphasis was placed on strengthening cross-border coordination and cooperation. Post-elimination outbreaks did occur in both Greece (2011) and Turkey (2012), but were quickly brought under control. The region is now implementing a regional framework for prevention of malaria reintroduction through 2020.

2.8.4 Entomology and vector control
There is a high biodiversity of mosquitoes in the GMS; the two most efficient malaria vectors are Anopheles dirus and An. minimus. However, ecology and transmission risk areas are rapidly evolving. Insecticide resistance is not yet a problem among major vectors in the GMS, but the situation should be monitored. Priority focus areas include:

- Shifting from the entomological surveillance strategy from one of control (longitudinal sentinel sites) to elimination. Risk-area stratification needs to expand and sampling should be decentralized. Countries need to engage in foci investigation and elimination.
- Adapting vector control to fit the context. Countries should optimize personal protection for outdoor and residual transmission, including identifying and providing nets that populations prefer to use and making sure net distributions are being targeted to the right places. Conventional nets should be treated, and net preference and durability studies should inform strategy.
Infrastructure and human resources should be strengthened, as well as linkages with research institutions. Investing in infrastructure and the next generation of entomologists is critically important.

Elimination is possible with existing tools when efforts are owned by countries with strong partner support and flexible funding. All countries in the GMS can achieve elimination, but models and strategies that have been successful elsewhere should be adapted to meet differing country contexts. Participants expressed interest in investigating what lessons can be learned from China’s significant decrease and how countries can work with the military, like Sri Lanka, to help bring down the disease.

2.8.5 WHO perspectives on future directions for GMS Coordination

Progress over the last several years has shown that with adequate deployment of effective tools and with good coverage, *P. falciparum* and *P. vivax* malaria can be wiped out. If countries can apply core interventions and apply them well, goals can be achieved ahead of schedule. Countries like Sri Lanka have shown us that ambitious goals can be achieved: WHO country, regional, and HQ offices work together to accelerate efforts to eliminate malaria across the region.

WHO is committed to working closely with countries on the implementation of malaria control and elimination strategies, and is uniquely positioned to support countries in the generation and use of data as well as the implementation of a regional database that allows us to not just share information, but also track action taken. Efficacy studies and surveillance are some of the success stories where the WHO has added value in the region, and WHO will continue to track how drugs perform and support adapting national guidelines based on that information. WHO will continue to support the adoption and implementation of strategies to improve access to timely diagnosis and treatment, particularly the implementation of a low-dose primaquine in addition to ACTs in treatment guidelines for malaria. Additionally, WHO, through its HQ and regional offices, will also continue to support the important work of tracking and banning oral artemisinin-based monotherapies. And lastly, WHO will support the establishment of multisectoral national malaria task forces.

2.9 Group work by constituencies: Challenges and how to move forward

The forum participants broke into small groups to discuss challenges, and strategize how to advance several technical topics. Group discussions are summarized as follows:

**National governance**

National malaria elimination committees are an important mechanism for coordinating activities, enhancing leadership and ownership, and engaging non-health sectors. Not all countries have them yet, but their creation should be supported. Some challenges include: the elimination agenda not always well understood outside of NMCPs; competing priorities and mandates can affect levels of commitment; and a disconnect between high level political dialogue and implementation-level discussions can exist.

**Regional data-sharing platform**

To optimize the implementation and use of a regional data-sharing platform, the following must be prioritized: elimination-capable surveillance systems must be developed; the purpose and content of the regional database must be clarified; capacity to use data for decision-making must be strengthened at the regional, subnational and national levels; the resolution of data spatially and temporal frequency must be improved; approaches to case and foci investigations across countries must be harmonized; and upcoming concept notes should include costs for surveillance improvements.
Country implementation

A number of priorities were identified to support country implementation, particularly around the adoption of global and regional WHO policies and guidelines, and the creation of detailed national elimination workplans: support for managing outbreaks, addressing conflict areas, improving surveillance, mapping partners and service coverage, improving information sharing and collaboration between and within countries, and covering gaps in human resources.

Reaching the most at-risk populations

Access for at-risk populations can be strengthened by adding malaria as part of an existing health service package at worksites, improving access and equity through universal health coverage, and helping programmes target service delivery packages by developing country-specific at-risk population typologies. Surveillance data can be used to better inform who these populations are. WHO and other partners can support this work through periodic mapping of health services, flexible funding that accommodates changes in strategies, and developing an evidence-based package for strategy or policy options.

Research for malaria elimination

Five areas were identified as priorities for further research: point of care diagnosis and sensitivity thresholds for rapid diagnostic tests; point of care tests for glucose-6-phosphate dehydrogenase detection; treatment, particularly in regards to how to treat mobile migrant populations and improve access to alternatives to substandard drugs; entomology and vector control, including looking at what factors influence outdoor transmission, larval source management for foci elimination, and assessing the feasibility of other vector control technologies; surveillance, including drug resistance, risk stratification, and insecticide resistance monitoring; and network and data sharing, including capacity building for operational research, collaboration for vector control tool development, and improved research networks.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

- There was consensus that significant progress has been made in all countries since the launch of the ERAR framework; the GMS countries are committed at the highest levels to the milestones outlined in the GMS regional malaria elimination strategy;
- The GMS countries acknowledge that the significant partner support needs to continue and be strengthened through the coordinating efforts of WHO.
- Shifting to elimination requires a profound change in operations, with greater ownership and capacity through all levels to detect, analyse and respond to remaining parasites and transmission foci.

3.2 Recommendations for Member States and WHO

3.2.1 Recommendations for Member States

1) GMS countries are encouraged to establish well-functioning National Malaria Elimination Task Forces that can coordinate malaria elimination efforts across ministries and sectors.
2) GMS countries are encouraged to ensure country ownership of the programme at all levels, from the central level to the peripheral health workers.
3) GMS countries are encouraged to empower subnational units to detect, analyse and aggressively respond to remaining transmission foci.
4) GMS countries are encouraged to ensure policies and strategies to ensure access to
diagnosis, treatment and prevention services to all persons at risk, especially
marginalized and remote communities and mobile populations.

5) GMS countries are encouraged to ensure that strategies and budgets reflect changes
necessary for elimination, including the emphasis on surveillance, risk-area stratification,
and the additional human resources needed for case investigation and foci elimination.

3.2.2 Recommendations for WHO

1) The Mekong Malaria Elimination Hub is requested to work with GMS countries to
ensure that continued domestic and international funding is not reduced as the number
of cases decline, but continues throughout the entire elimination process.

2) WHO is requested to support a regional data-sharing platform that will enable action to
detect and eliminate transmission foci.

3) WHO is requested to strengthen direct cross-border collaboration where transmission
foci are along or span national boundaries.

4) WHO is requested to strengthen national technical and operational capacity and
implementation for epidemiological and entomological surveillance; diagnosis and
treatment; vector control and personal protection.

5) WHO is requested to support the harmonization and focus the considerable technical,
operational and financial support provided by partners to meet the common vision of
the regional malaria elimination strategy.
Emergency Response to Artemisinin Resistance in the Greater Mekong Subregion Partners' Forum
Raffles Le Royal, Phnom Penh, Cambodia, 21-22 November 2016

AGENDA

Objectives:
1. To provide updates on implementation progress of the ERAR Framework;
2. To provide technical and operational updates on WHO policies and strategies on diagnosis, treatment, vector control, surveillance and response;
3. To discuss the transformation of ERAR Hub into an Accelerated Elimination Hub to coordinate malaria elimination efforts in the GMS; and
4. To reach consensus on specific recommendations and commitments for partner coordination of elimination efforts in the GMS.

DAY 1 (Monday, 21 November 2016)

08:30 Registration
09:00 – 09:30 Welcome address and self-introduction  Dr Liu Yunguo, WHO Representative, Cambodia
09:30 – 9:35 Objectives of the Forum  Dr Fred Binka, Coordinator, ERAR Regional Hub
09:35 – 10:00 Key note address  H.E. Dr Mam Bunheng, Minister, Ministry of Health, Cambodia
10:00 – 10:30 Group photo and coffee break
10:30 – 11:00 ERAR in GMS: History, background, challenges  Dr Pascal Ringwald, DRC, HQ/GMP
and progress to Artemisinin Resistance in the GMS.

11:00 – 11:30 ERAR in GMS: successes, challenges and proposed solutions
Dr Fred Binka, Coordinator, ERAR Regional Hub

11:30 – 13:00 Panel Discussion: GMS Countries
- What’s been achieved? CNM Director (Cambodia)
- What’s been learned and what challenges remain? NIPD Director (China)
- What must we do moving forward? CMPE Director (Lao PDR)
- What are the expectations from partners? Director/NMCP Manager (Myanmar) BVBD Director (Thailand)

Moderator: to be decided

NIMPE Director (Vietnam)

13:00 – 14:30 Lunch

14:30 – 15:45 Panel Discussion: Partners and stakeholders
- What worked well, what did not? BMGF (Dr Bruno Moonen)
- What needs to be improved? DFAT (Dr Bronwyn Duce)
- What are you willing to commit? GF RAI (Dr Arjen Dondorp)

Moderator: to be decided

APLMA (Dr Benjamin Rolfe)

USAID/PMI (Dr David Sintasath)

UNOPS (Dr Attila Molnar)

15:45 – 16:15 Coffee break
Tour of exhibit displays

16:15 – 16:30 Global Technical Strategy
Dr Pedro Alonso, Director, GMP/HQ

16:30 – 16:45 SEARO Regional Strategy for Malaria Elimination
Dr Eva Christophel, MVP/SE

16:45 – 17:00 Regional Action Framework for Malaria Control and Elimination in Western Pacific
Dr Rabindra Abeyasinghe, MVP

17:00 Meeting adjourns

18:00 Welcome reception

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**DAY 2 (Tuesday, 22 November 2016)**

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<th>Time</th>
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<td>09:00 – 09:20</td>
<td>Accelerated Malaria Elimination in GMS: A Response to Artemisinin Resistance</td>
<td>Dr Fred Binka, Coordinator, ERAR Regional Hub</td>
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<td>09:20 – 10:00</td>
<td>Setting the scene:</td>
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<td><strong>Sri Lanka elimination experience</strong></td>
<td>Dr. Kamini Mendis, temporary advisor</td>
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<td><strong>China elimination experience</strong></td>
<td>Prof Gao Qi, temporary advisor</td>
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<td><strong>Europe elimination experience</strong></td>
<td>Dr. Michael Ejov, temporary advisor</td>
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<td><strong>Entomology and Vector Control in the GMS</strong></td>
<td>Dr. M. Macdonald, Consultant, ERAR</td>
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<td>10:00 – 10:30</td>
<td>Discussion</td>
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<td>10:30 - 11:00</td>
<td><strong>Coffee break</strong></td>
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<td>11:00 - 11:30</td>
<td>WHO perspectives on future directions for GMS Coordination (Mekong Malaria Elimination Hub)</td>
<td>Dr Pedro Alonso, Director, GMP/HQ</td>
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<td>Dr Rabindra Abeyasinghe, Coordinator/MVP,WP</td>
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<td>Dr Swarup Sarkar, Director, CDS/SE</td>
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<td>11:30 - 11:35</td>
<td>Introduction to group work</td>
<td>Dr Fred Binka, Coordinator, ERAR Regional Hub</td>
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<td>11:35 - 13:30</td>
<td>Group work by constituencies: how to move the strategy forward</td>
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<td>- Governance</td>
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<td>- Regional Data-sharing Platform</td>
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<td>13:30 – 14:30</td>
<td><strong>Lunch</strong></td>
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<td>14:30 – 15:00</td>
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15:00 – 15:30  Coffee break

15:30 – 16:30  Conclusions and recommendations  Dr Rabindra Abeyasinghe, MVP/WP  
                Dr Eva Christophel, MVP/SE

16:30  Closing  Dr Fred Binka, Coordinator, ERAR  
             Regional Hub
Annex 2. List of participants

PARTICIPANTS

BANGLADESH
Dr Md Abdus Sobur
Deputy Director (CDC)
Directorate General of Health Services
Mohakhali, Dhaka

CAMBODIA
Dr Phou Leang
Deputy Director General for Health
Ministry of Health
No. 80, Samdech Penn Nouth Blvd, (289)
Sangkat Boeungkok 2
Toul Kork District, Phnom Penh

Dr Dr Kheng Sim
Deputy Director
Department of Communicable Disease Control
Ministry of Health
No. 80, Samdech Penn Nouth Blvd. (289)
Sangkat Boeungkok 2, Phnom Penh

Dr Lek Dysoley
Deputy Director
National Center for Entomology and Parasitology Control
Corner Street 92, Trapaing Svay Village
Sankat Phnom Penh Thmey
Khan Sensok, Phnom Penh

Dr Meas Tha
Deputy Director
National Center for Entomology and Parasitology Control
Corner Street 92, Trapaing Svay Village
Sankat Phnom Penh Thmey
Khan Sensok, Phnom Penh

CHINA
Mr Lei Zheng Long
Deputy Director General
Bureau of Disease Control
National Health and Family Planning Commission, China
No.1 Xizhimenwai Nanlu, Xicheng District, 100044
Beijing

Dr Yan Jun
Director
Division of Parasitic Disease Control
Bureau of Diseases Prevention and Control
National Health and Family Planning Commission, China  
No.1 Xizhimenwai Nanlu, Xicheng District, 100044  
Beijing

Dr Zhang Canglin  
Officer  
Yunna Institute of Parasitic Diseases  
6 Xivuan Road, Pu’er, Yunnan,

**LAO PDR**

Dr Rattanaxay Phetsouvanh  
Deputy Director  
Department of Communicable Disease Control  
Ministry of Health  
Vientiane

Dr Viengxay Vanisaveth  
Deputy Director  
Center of Malariology, Parasitology and Entomology  
Ministry of Health  
Vientiane

Dr Keobouphaphone Chindavongsa  
Chief of Laboratory and Treatment Unit  
Center of Malariology, Parasitology and Entomology  
Ministry of Health  
Vientiane

**THAILAND**

Dr Wichai Satmai  
Medical Officer, Advisory Level and Vice Director General  
Bureau of Vector Borne Diseases  
Department of Disease Control  
Ministry of Public Health  
Nonthaburi

Dr Prayuth Sudathip  
Vice Director General  
Department of Disease Control  
Ministry of Public Health  
Nonthaburi

Ms Praparat Promeiang  
Public Health Technical Officer, Practitioner Level  
Bureau of Vector Borne Diseases  
Department of Disease Control  
Ministry of Public Health  
Nonthaburi

**VIET NAM**

Dr Nguyen Quang Thieu
Deputy Director
National Institute for Malariology, Parasitology and Entomology (NIMPE)
Ministry of Health
245 Luong The Vinh, Tu Liem
Ha Noi

Dr Vu Van Hung
Senior Official of Department of Planning and Finance
Ministry of Health
138 A, Giang Vo
Ha Noi

Dr Chu Van Tuyen
Medical Official of Division of Communicable Disease Control
General Department of Preventive Medicine
Ministry of Health
135 Nui Truc Street Ba Dinh
Ha Noi

Dr Bui Quang Phuc
Head, Clinical Pharmaceutical Research Department
National Institute of Malariology, Parasitology and Entomology
245 Luong The Vinh Str, Tu Liem District
Ha Noi

TEMPORARY ADVISERS

Prof Gao Qi
Consultant
Meiyuan, Wuxi, Jiangsu 214064
Wuxi

Dr Kamini Mendis
Consultant
141 Jawatta Road
Colombo

Mikhail Ejov
Consultant
627 Hunt Club Place
Ottawa

Dr Michael Macdonald
Consultant ERAR Hub
Phnom Penh

Ms Laura Newman
Consultant
Global Malaria Programme
World Health Organization
SECRETARIAT WHO EMERGENCY RESPONSE TO ARTEMISININ RESISTANCE (ERAR) IN THE GMS

Dr Fred Binka
Regional Hub Coordinator
Emergency Response to Artemisinin Resistance (ERAR)
in the Greater Mekong Subregion
WHO Country Office in Cambodia
Phnom Penh

Ms Abigail Gines
Programme Officer
Emergency Response to Artemisinin Resistance (ERAR)
in the Greater Mekong subregion
WHO Country Office in Cambodia
Phnom Penh

Ms Bo Navy
Administrative Assistant
Emergency Response to Artemisinin Resistance (ERAR)
in the Greater Mekong subregion
WHO Country Office in Cambodia
Phnom Penh
Tel. : +855 23 216 610
Email : bon@who.int

WHO WPRO
Dr Rabindra Abeyasinghe
Coordinator
Malaria, Other Vectorborne and Parasitic Diseases
Regional Office for the Western Pacific
P.O. Box 2932
Manila

Ms Uhjin Kim
Technical Officer, Pharmaceuticals
Regional Office for the Western Pacific
P.O. Box 2932
Manila
Tel. : +632 528 9026
Email : kimu@who.int

WHO CAMBODIA
Dr Luciano Tuseo
Scientist
No. 61-64, Preah Norodom Blvd. (corner St. 306)
Sangkat Boeung Keng Kang I, Khan Chamkamorn
Phnom Penh

Dr Jean-Olivier Guintran
Medical Officer, MVP
No. 61-64, Preah Norodom Blvd. (corner St. 306)
Sangkat Boeung Keng Kang I, Khan Chamkamorn
Phnom Penh

Dr Samphornarann Top
Technical Officer (ERAR)
No. 61-64, Preah Norodom Blvd. (corner St. 306)
Sangkat Boeung Keng Kang I, Khan Chamkamorn
Phnom Penh
Tel. : +855 23 216 610
Email : tops@who.int

WHO CHINA
Dr Li Xiao Hong
Technical Officer (ERAR)
401, Dongwai Diplomatic Office Building
23, Dongzhimenwai Dajie Chaoyang District
Beijing

WHO Viet Nam
Dr Tran Cong Dai
Technical Officer (Malaria)
63 Tran Hung Dao Street, Hoan Kiem District
Ha Noi
Tel. : +844 38 500 279
Email : TranCongD@who.int

WHO SEARO
Dr Maria Eva Christophel
Regional Advisor, Malaria
Department of Communicable Diseases
WHO Regional Office for South-East Asia
I.P. Estate, Mahatama Gandhi Marg, 110002
New Delhi

WHO MYANMAR
Dr Badri Thapa
Scientist, Malaria
WHO, Republic of the Union of Myanmar
No. 2, Pyay Road (7th Mile Point), Mayangone Township
Yangon

WHO THAILAND
Dr Deyer Gopinath
Medical Officer (Malaria and Border Health)
4th Fl., Permanent Secretary Bld 3
Ministry of Public Health
Nonthaburi

Ms Aree Moungsookjareoun
National Profession Officer
4th Fl., Permanent Secretary Bld 3
Ministry of Public Health
Nonthaburi

WHO HEADQUARTERS GLOBAL MALARIA PROGRAMME

Dr Pedro Alonso
Director
Global Malaria Programme
World Health Organization
20 Avenue Appia, Geneva

Dr Pascal Ringwald
Coordinator, Drug Resistance and containment
Global Malaria Programme
World Health Organization
20 Avenue Appia, Geneva

Ms Charlotte Rasmussen
Technical Officer
Global Malaria Programme
World Health Organization
20 Avenue Appia, Geneva

Dr Noor Abdisalan
Team Leader Surveillance
Global Malaria Programme
World Health Organization
20 Avenue Appia, Geneva

INTERNATIONAL PARTNERS ASIA-PACIFIC LEADERS MALARIA ALLIANCE

Dr Jeffery Smith
Senior Director Operations & Board Affairs
04-01/02 Helios
11 Biopolis Way
Singapore

AUSTRALIAN DEPARTMENT OF FOREIGN AFFAIRS AND TRADE

Mr Richard Lee
Regional Program Manager
Department of Foreign Affairs and Trade
Australian Embassy
37 South Sathorn Rd,
Bangkok

BILL & MELINDA GATES FOUNDATION

Dr Jonathan Cox
Senior Program Officer, Malaria
Global Health Program
440 5th Ave N., Seattle, WA 98109
Washington
CLINTON HEALTH ACCESS INITIATIVE
Mr Joseph Novotny
Malaria Regional Manager
Southeast Asia Clinton Health Access Initiative
Phnom Penh

DEPARTMENT FOR INTERNATIONAL DEVELOPMENT
Prof Jo Lines
London School of Hygiene & Tropical Medicine
Keppel Street, WC1E 7HT,
United Kingdom

HEALTH POVERTY ACTION
Ms Li Jiayin
Project Coordinator
Health Unlimited East Asia Programme Office
3rd Floor, Complex Building, Camellia Hotel,
96th. East Dongfeng Road
Kunming, Yunnan

Dr John Holveck
Country Director
Health Poverty Action – Lao PDR
P.O. Box 5628, No. 381, Unit 16, Ban Phonthan-Neua,
Saysettha District
Vientiane

Dr Yu Yu Lwin
Technical Officer (HIV/TB/MAL)
11 (k), Maha Myaing Street, Sanchaung Township,
Postal Cord 11111
Yangon

JAPAN INTERNATIONAL COOPERATION AGENCY
Dr Masatoshi Nakamura
Consultant on Malaria Control
JICA Major Infectious Disease Control Project (Malaria Component)
Vector Borne Disease Control, Department of Health
Corner of Bayint Naung Rd. & BPI St., West Gyogone, Insein Township
Yangon

MALARIAS CONSORTIUM
Dr Jeffrey Hii
Senior Vector Control Specialist
Malaria Consortium Asia
Faculty of Tropical Medicine, Mahidol University
420/6 Rajavidhi Road,
Bangkok

Dr Sergio Lopes
Malaria Consortium Cambodia Country Technical Coordinator)
#113 (6th Floor of Parkway Square), Mao Tse Young, Blvd.,
Chamcar Morn
Phnom Penh

THE THREE MILLENNIUM DEVELOPMENT GOAL FUND
Dr Aye Yu Soe
3MDG Public Health Officer
3MDG Fund Management Office
12(O), Pyi Thu Lane, 7 Mile, Mayangone Township,
Yangon

POPULATION SERVICES INTERNATIONAL
Ms Henrietta Allen
GMS Malaria Director
No 29, Street 334, Boeung Keng Kang I, Chamkamon
Phnom Penh

THE GLOBAL FUND REGIONAL STEERING COMMITTEE FOR THE REGIONAL ARTEMISININ RESISTANCE INITIATIVE
Ms Amelie Gina Joubert
Executive Secretary
RAI-Regional Steering Committee Secretariat
WHO Country Office in Cambodia
Phnom Penh

RAKS THAI FOUNDATION
Mr Shreehari Acharya
Program Officer
185 Pradipat Rd, Soi Pradipat 6
Samsennai, Phayathai
Bangkok

UNITED NATIONS OFFICE FOR PROJECT SERVICES
Dr Attila Molnar
Program Director
Principal Recipient for GFATM
UNOPS Asia Region
No 12(O), Pyi Thu Lane, 7 Mile, Mayangone Township,
Yangon, Myanmar

Dr Naeem Durrani
Program Coordinator
Principal Recipient for the GFATM
UNOPS Cambodia
Phnom Penh Center, 6th floor, Room 628, Corner of Sothearas
and Sihanouk Blvd,
Phnom Penh

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)/PRESIDENT’S MALARIA INITIATIVE
Dr David Sintasath
Regional Malaria Advisor
President’s Malaria Initiative, Greater Mekong Subregion
USAID / Regional Development Mission for Asia
Athenee Tower, 25th Floor, 63 Wireless Road,
Bangkok

Dr Feliciano Monti
Senior Malaria Advisor
President’s Malaria Initiative (PMI)
U.S. Agency for International Development (USAID)
110 University Avenue, Kamaryut Township
Yangon

Dr Gunawardena Dissanayake
Resident Advisor/PMI
Office of Public Health and Education (OPHE)
USAID In Cambodia
#1, Street 96, Sangkat Wat Phnom, Khan Daun Penh
Phnom Penh
Tel. : +855 23 72 8383 (direct); +855 12 964 561