

**Thailand–Cambodia cross border malaria elimination workshop for central and provincial levels,  
29-30 August 2018, Pattaya, Thailand.**

**Note for the Record**

**Objectives**

- Allowing a detailed understanding of the dynamics of malaria transmission within and across the targeted border areas
- Consensus from national malaria control programs of Thailand and Cambodia around:
  - Access, notification, case investigation and ACDs, case follow up;
  - Foci mapping, response and management; and
  - Response and contingency for outbreaks

This was organized as a government to government (G-to-G) meeting between central and provincial staff from Cambodia and Thailand. The Bureau of Vector Borne Disease (BVBD), Department of Disease Control (DDC), Ministry of Public Health (MoPH) Thailand was host. WHO Thailand and MME provided technical support.

Opening remarks by Dr. Jeeraphat Sirichaisinthop (Senior Expert, Department of Diseases Control, Ministry of Public Health, Thailand) on behalf of Dr Panumard Yariwaisakul (Deputy Director-General, Department of Diseases Control, Thailand) and Dr. Theme Viravann (Deputy Director, International Cooperation, MoH, Cambodia). Dr. Hiromasa Okayasu (Coordinator, Mekong Malaria Elimination Programme, WHO) presented an overview of the epidemiology in the Greater Mekong Subregion and Thailand-Cambodia border. He pointed out that the cases are limited in only a few places in GMS. Yet, the circulation continues in Northern Cambodia and adjacent province in Thailand (Si Sa Ket).

**Day 1**

There was opening remarks by Dr. Jeeraphat Sirichaisinthop (Senior Experts, Department of Diseases Control, MoPH, Thailand) on behalf of Dr Panumard Yariwaisakul (Deputy DG, DCC, Thailand) and Dr. Theme Viravann (Deputy Director, International Cooperation, MoH, Cambodia).

Dr. Hiromasa Okayasu (Coordinator, Mekong Malaria Elimination Programme, WHO) presented an overview of the epidemiology in the Greater Mekong Subregion and Thailand-Cambodia border. He pointed out that the cases are limited in only a few places in GMS. Yet, the circulation continues in Northern Cambodia and adjacent province in Thailand (Si Sa Ket).

Then, representatives from provinces in Thailand/Cambodia presented the status of malaria elimination in the Thailand-Cambodia border provinces.

Representatives from provinces in Thailand suggested that there is a transmission of malaria close to its Cambodia border. Thailand is in elimination phase and conducts a case-based surveillance and responds to each case with “1-3-7 approach”. They indicated that most patients are military/police along the border

areas with some importation from Cambodia side (7/12 in Trat, 16/16 in Sakeo, 0/2 in Surin and 1/121 cases out of all imported cases are from Cambodia in 2018). They also indicated that some areas are hard to access due to the forest and security concern.

A representative from provinces in Cambodia presented the update of its malaria elimination. Four provinces are in the elimination phase (Battambang, Pailin, Banteay Meanchey, Pursat) and the other four are in the burden reduction phase. Cases are located in bordering districts/health facilities especially in Pursat, Preah Vihear and Oddar Meanchey. Some provinces are already collaborating with the adjacent provinces in Thailand. It proposed that 1) regular information sharing and 2) joint programme such as screening at the border areas, bi-lingual communications (e.g. billboard), addressing migratory population.

In Thailand, Pv patients receive 14 day Primaquine treatment mostly at health facility without G6PD test. The treatment seems effective; positive rate is very low after 14 days (and at 60 days). Patients are followed up for the potential side effect due to G6PD deficiency. Provincial representative indicated that the side effect is very rare (2-3 patients/year). Patients with dark urine will be admitted to the hospital.

Cambodia has implemented the low-dose Primaquine for Pf/mix infection cases. It seems effective (no gametocytes after a few days) and safe (no confirmed side effect cases).

There are not many Cambodia people diagnosed/treated in Thailand. Still, there could be a cross-border transmission (Thailand people are infected by mosquitos from Cambodia). Cambodia has recently initiated case-based surveillance in 4 provinces.

In the afternoon, the team was divided into four groups:

- *Trat (Thailand) Koh Kong, Battambang, Pailin, Pursat (Cambodia)*
- *Sakeo (Thailand), Banteay Meanchey, Battambang, Pailin (Cambodia)*
- *Surin (Thailand), Oddar Meanchey (Cambodia)*
- *Sisaket (Thailand), Preah Vihear, Oddar Meanchey (Cambodia)*

At the end of the group work, each group presented the distribution of health centers and cases in the border area, epidemiology (foci, number of cases, especially imported cases) mobility pattern and proposed cross border activities.

The groups proposed joint activities such as: 1) data sharing/notification on cross-border cases (and outbreak), 2) nomination of focal points on both sides, 3) joint meeting at district level to exchange information and discuss joint activities, and 4) training of VMWs.

TICA supports cross border activities such as cross-border meetings (different places), VMW training (in Sakeo), M&E, IEC/BCC and capacity building (in Surin, proposed).

## **Day 2**

The group reviewed the summary of group work. (See attached). Then, the group discussed the conclusion and recommendations.

## Conclusions:

- Magnitude of cross border malaria transmission appears not to be a significant problem (given current data from routine surveillance)
- Resources (existing GF or other) should be focused on screening at worksite (plantations, forest reserve etc) esp in Thai side where migrants work. Current screening at official points of entry (POE) does not yield cases.
- Three out of the seven border provinces in Cambodia that border Thailand are still in burden reduction phase (vs all four border provinces in Thailand in elimination phase) and as such are unable currently to conduct case investigations and determine travel history viz indigenous vs imported cases. Magnitude of imported cases either from/to Cambodia/Thailand in elimination provinces in Cambodia does not seem to be a significant problem (given low number of imported cases reported currently).

## Recommendations:

- WHO MME RDSP consolidates key malaria indicators monthly – facility (Cambodia) and provincial (Thailand). Proposed Thailand shares district (or lower level) with MME RDSP. This will be shared on a dedicated cross border dashboard on MME RDSP. This is intended as a tool for provincial and district level staff for response. MME will provide training for this purpose.
  - Value of a cross border subnational level notification by (LINE/email) should be focused in elimination areas (i.e. imported cases in the case-based surveillance)
  - Establish focal points at provincial and district level (for Cambodia suggest current OD CDC focal point) – Responsibility: CNM and BVBD
  - Follow up planning workshop with district level for cross border elimination districts to:
    - (1) Agree on data variables to be shared – MME RDSP and through LINE/email [this includes specific questions in case investigation forms to obtain detail travel history]
    - (2) detail cross border activities to be implemented
- [Dr Siv (CNM) will take initiative to explore funding support from GF. This will be for a cross border district level workshop]
- Provincial-central level cross border meeting could follow up on implementation in 6 months depending on how fast district level implementation commences
  - Regular provincial level quarterly meetings should continue (if not planned, funds should be allocated – CDC, GF, TICA etc) hosted alternatively on either side

## Outcome of the Group Work

Trat	<b><u>Group 1</u></b>	
	Pursat	ELIMINATION
	Koh Kong	
	Battambang*	ELIMINATION
	Pailin ^	ELIMINATION
Sakeo	<b><u>Group 2</u></b>	
	Banteay Meanchey	ELIMINATION
	Battambang*	
Surin	<b><u>Group 3</u></b>	
	Oddar Meanchey ~	
Sisaket	<b><u>Group 4</u></b>	
	Preah Vihear	
	Oddar Meanchey ~	

## Group work

1. Geographical coverage by district –improving access?
  2. Mobility pattern
  3. Cross border:
    - Notification, case investigation
    - ACDs, case follow up, special measures? (chemoprophylaxis?)
    - foci mapping, foci response and management
    - response and contingency for outbreaks
    - data sharing and reporting
    - Community mobilization/IEC/BCC
    - M&E
- 
- Timelines & funding – Domestic/GF/TICA/USAID/PMI?
  - Administrative procedures –focal persons/communication etc

### **Group 1**

Trat  
Pursat (E)  
Koh Kong  
Battambang (E)  
Pailin (E)

#### **Thai:**

- 4 border districts
- 12 A1 and 19 A2 foci, approx. 70% of transmission occurs outside village (farm, forest)
- 52 cases, 42 investigated, 12 cases imported – 7 Cambodian
- XB activity supported by TICA for XB quarterly health meeting btwn Koh Kong and Trat

#### **Cam:**

- 7 border districts, 4 ODs, 12 HC
- Mobility to Thailand- Farm, construction, fishery, Rubber Plantation.
  - Chanthabory- Pailin, Battambang: Longan Farm
  - Trat- Koh Kong & Pursat: Rubber plantation, fishery, Resort

#### **Proposed XB activity:**

- Sharing simple form and data (Residence, Place of transmission, travel history, malaria species, age, name, sex) using Line, Telegram etc with the common language such as English
- Need to identify focal person at each sites- HCs staff, District staff & Provincial staff.
- Currently no fund for this activities

### **Group 2**

Sakeo  
Banteay Meanchey (E)  
Battambang (E)

#### **Thai:**

- 4 border districts, 4 border crossings
- Migration from Cam for tapioca and sugar cane plantations Dec – Apr
- 6 villages are A1
- 16 cases from Cam mainly from Pursat and Kampong Speu
- TICA funds are planned for training VMW in Cam side (cascade training of OD and HC staff only in BM. Funds available to Cam for VMW training on elimination). Funds also for meetings
- Funds: RA12E

#### **Cam:**

- 6 border districts (with Sakeo)
- both elimination provinces, no indigenous case reported
- Pailin foci not mapped yet, case imported from other OD/provinces (L3/L4). L4: Pursat, Kampong Speu, Stung Treng, Oddar Meanchey
- Thai cases imported – Ban Namrong (Buriram province)
- VMWs already using smartphone/tablet for Case Investigations

#### **Proposed XB activity:**

1. Suggest using LINE/FB for weekly case notification and outbreak notification – @ facility level, district and province
2. Foci mapping to commence in Cam side
3. Joint XB foci investigation

### **Group 3**

Surin

Oddar Meanchey

#### **Thai:**

- 4 border districts, rubber plantation along border, 1 official border crossing point
- 17 cases, 16 indigenous, 13 A1A2 located in border districts about 20 villages, no foreign imported cases
- Funds: RAI2E. Have submitted proposal with TICA for data sharing, capacity building for Hc in OM, training of VMW, trilingual communication material, prevention commodities (maybe to be focused along Srisaket border)

#### **Cam:**

- 4 border districts, VMW in 146 villages; 1,142 cases (includes along border with Srisaket)
- 2 districts (30% of cases) border with Surin
- 3 main points of entry along border
- More activities needed for MMPS – messaging, LLINs
- More investigation needed to know transmission patterns of these cases – unknown. Activities and source of additional funding needs to be decided later.

#### **Proposed XB activity:**

1. Data sharing & joint planning, PHO/level focal point both sides
2. Cross border real time case notification by email (Thai). Outbreak notification (Cam)
3. Case follow up linked to cross border notification

### **Group 4**

Sisaket

Preah Vihear

Oddar Meanchey

#### **Thai:**

- 3 border districts; Cam: 6 border districts
- Key XB activity: Mobile clinics at border trade zones/POE screen and treat, MP and BMP to continue
- Funds: RAI2E, AFRIMS, Government

#### **Cam:**

- Mobility patterns not known, many unofficial entry point,
- Key XB activity: VMWs in villages along border.
- PV - high number of cases but not certain source of infection/XB transmission. Funds: GF, ADB, MSF.
- OM – 2 districts, 1 unofficial border crossing, migrants from other provinces. Funds: GF, CRS

#### **Proposed XB activity:**

1. Weekly case reports through LINE group, outbreak notification
  2. Assess extent of cases seen in private sector in both sides – to inform appropriate strategy
- See notes

## Agenda

Day 1		
Time	Agenda	Lead person
08:00 - 08:30	Registration	
08:30 - 08:45	Welcome remarks from MoPH Thailand	Dr Jeeraphat Sirichaisinthop
	Remarks from MoH Cambodia	Dr Theme Viravann
08:45 - 09:00	Self-introductions	
	Nomination of Chairperson/ co-chair/secretariat	
09:00 - 09:15	Introduction to workshop, objectives and expected outcomes	Dr Hiromasa Okayasu WHO (MME)
09:15 - 10:15	Background and update on malaria situation in Thailand - Sa Kaeo, Trat, Si Sa Ket, Surin	Provincial Health Offices, Thailand
10:15 - 10:30	Break and group photo	
10:30 - 11:00	Background and update on malaria situation in Cambodia: - South-West of Cambodia: (Battambang, Pailin, Pursat and Koh Kong); (15min) - North-West of Cambodia: (Oddar Meanchey, Banteay Meanchey and Preah Vihear)	Provincial Health Department, Cambodia
11:00-12:00	Q&A, Discussion	
12:00 - 13:00	Lunch	
13:00 - 13:30	Summary of key issues from morning presentation	Secretariat
13:30 - 15:30	Brainstorming on scope of cross border collaboration - mapping exercise – paired districts and identified issues and solutions	
15:30 - 17:00	Presentation by paired district (world café method)	
17:00-17:20	Summary of Day 1 and Agenda for Day 2	Secretariat

<b>Day 2</b>		
<b>Time</b>	<b>Agenda</b>	<b>Lead person</b>
08:30 - 12:00	<p>Consensus from national malaria control programs of Thailand and Cambodia around:</p> <ol style="list-style-type: none"> <li>1. Cross border objectives by border pairs</li> <li>2. Geographical coverage by district</li> <li>3. Agreed activities – improving access, notification, case investigation and ACDs, case follow up, foci mapping, response and management, response and contingency for outbreaks</li> <li>4. Timelines &amp; funding</li> <li>5. Data sharing and reporting</li> <li>6. M&amp;E</li> <li>7. Administrative procedures -communication</li> </ol>	Dr Deyer Gopinath
12:00 - 13:00	Lunch	
13:00 - 14:00	Q&A –Discussion-Consensus	
14:00 - 15:00	Next steps and Closing	Dr Jeeraphat Sirichaisinthop



## List of Participants

### 1. Thailand

Dr Jeeraphat Sirichaisinthop	Senior Advisor Department of Disease Control
Dr Preecha Prempreee	Director, Bureau of Vector-borne Diseases
Dr Prayuth Sudathip	Chief, Malaria Elimination, Bureau of Vector-borne Diseases
Dr Rungrawee Tipmontree	Bureau of Vector-borne Diseases
Dr Jerdsuda Kanjanasuwan	Bureau of Vector-borne Diseases
Ms Suravadee Kitchakarn	Bureau of Vector-borne Diseases
Ms Praparatt Amonsurintawong	Bureau of Vector-borne Diseases
Ms Thannikar Thong-ard	Bureau of Vector-borne Diseases
Ms Naraporn Khuanyoung	Bureau of Vector-borne Diseases
Ms Panita Suvanich	Surin Office of Public Health
Mr Pijet Niyamrataneakulsri	Surin Office of Public Health
Ms Kanyarat Lausatianragit	Si Sa Ket Office of Public Health
Dr Apirat Katangutanon	Director, Sa Kaew Office of Public Health
Mr Prawit Kamnueng	Sa Kaew Office of Public Health
Ms Ravisara Jirarojwatana	Office of Disease Prevention and Control 6 Chon Buri
Ms Pranee Thawonsiri	Office of Disease Prevention and Control 6 Chon Buri
Ms Wanna Phon-Or	Vector Borne Diseases Centerr 6.2 Sa Kaoew
Ms Wichan Patirat	Vector Borne Diseases Centerr 6.4 Trat
Mr Suriyan Butimal	Vector Borne Diseases Centerr 9.2 Surin
Mr Sornpet Mahamart	Vector Borne Diseases Centerr 9.2 Surin
Mr Chatee Raseebut	Vector Borne Diseases Centerr 10.1 Ubon Ratchathani
Mr Surajit Termvong	Vector Borne Diseases Centerr 10.1 Ubon Ratchathani
Mr Prasert Nonkaew	Vector Borne Diseases Centerr 10.1.3 Si Sa Ket

### 2. Cambodia

Dr Theme Viravann	Deputy Director, International Cooperation Department
Dr Siv Sovannaroeth	Chief of Technical Bureau, CNM
Dr Keo Sophaktra	Director, Banteay MeanChey Provincial Health Department
Dr Khoy Dy	Director, Pursat Provincial Health Department
Dr Voeurng Bunreth	Director, Battambang Provincial Health Department
Dr Koung Lo	Director, Preah Vihear Provincial Health Department
Dr Khlok Huot	Director, Oddar Meanchey Provincial Health Department
Dr Yok Sovann	Deputy Director, Pailin Provincial Health Department
Dr Roearn Sothy	Malaria Supervisor, Banteay MeanChey Provincial Health Department
Dr Mao Sivanna	Malaria Supervisor, Pursat Provincial Health Department

Dr Chan Davoeung	Malaria Supervisor, Battambang Provincial Health Department
Mr Kouch Channa	Malaria Supervisor, Preah Vihear Provincial Health Department
Dr Khourn Pong	Malaria Supervisor, Oddar Meanchey Provincial Health Department
Ms Oum Sarith	Malaria Supervisor, Pailin Provincial Health Department
Mr Sam Vantha	Malaria Supervisor, Koh Kong Provincial Health Department

**WHO**

Dr Luciano Tuseo	Head of Programme, Malaria, Other Vector borne and Parasitic Diseases, WHO Cambodia
Dr Hiromasa Okayazu	Coordinator for Mekong Malaria Elimination, WHO Cambodia
Mr Rady Try	Malaria Surveillance Officer, WHO Cambodia
Dr Deyer Gopinath	Medical Officer, Malaria and Border Health, WHO Thailand
Ms Kallayanee Laempoo	Programme Associate, WHO Thailand