

**Presenting at the President' Malaria Initiative Partners Meeting in Thailand,
Developing an Indonesia Medicines Quality Monitoring (MQM) Program
Implementation Plan, and Training on Establishing an MQM Program in Malaria
Clinics in Thailand**

**Bangkok, Thailand
March 20-23, 2012**

**Jakarta, Indonesia
March 24-29, 2012**

**Bangkok, Thailand
March 30-April 3, 2012**

Trip Report

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PROMOTING THE QUALITY OF MEDICINES

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Executive Summary

Dr. Souly Phanouvong traveled to Bangkok, Thailand where he joined Dr. Asawin Likhitsup, a PQM Technical Consultant, to participate in the President's Malaria Initiative (PMI) partners meeting organized by the University Research Company (URC) and the PMI team in the Greater Mekong Subregion (GMS). PQM presented an overview of current program activities in the GMS and planned strategies to partners for their input.

Dr. Phanouvong then continued his trip to Jakarta, Indonesia, where he joined Dr. Musalkazim Ali, a PQM Country Consultant, and met with local partners to discuss and jointly develop implementation plans for a medicines quality monitoring program to be implemented in selected provinces in Indonesia. PQM also followed up on the progress made by pharmaceutical manufacturers (Phapros and Indofarma) on their corrective and preventive action plans related to Good Manufacturing Practices (GMP) and dossiers for World Health Organization (WHO) Prequalification (PQ).

Dr. Phanouvong then returned to Bangkok, and along with Dr. Likhitsup, helped organize a training workshop, in collaboration with Kenan Institute Asia (K.I. Asia) and the Bureau of Vector Borne Diseases Control of Thailand. The workshop focused on establishing a medicines quality monitoring program for antimalarials at malaria clinics across the 22 provinces in Thailand.

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About PQM

The Promoting the Quality of Medicines (PQM) program, funded by the U.S. Agency for International Development (USAID), is the successor of the Drug Quality and Information (DQI) program implemented by the United States Pharmacopeia (USP). PQM is USAID’s response to the growing challenge posed by the proliferation of counterfeit and substandard medicines. By providing technical assistance to developing countries, PQM helps build local capacity in medicine quality assurance systems, increase the supply of quality medicines to priority USAID health programs, and ensure the quality and safety of medicines globally. This document does not necessarily represent the views or opinions of USAID or the United States Government. It may be reproduced if credit is given to PQM and USP.

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Acronyms

ATB	Anti-tuberculosis
BE	Bioequivalence
BVBD	Bureau of Vector-Borne Diseases
CAPA	Corrective and Preventive Action
CRO	Contract Research Organization
DQI	Drug Quality and Information Program
FDA	Food and Drug Administration
FDC	Fixed Dose Combination
GMS	Greater Mekong Sub-region
GMP	Good Manufacturing Practices
HPLC	High Performance Liquid Chromatography
K.I.Asia	Kenan Institute - Asia
MQM	Medicines Quality Monitoring
NQCL-DF	National Quality Control Laboratory of Drug and Food
NTP	National Tuberculosis Program
PMI	President's Malaria Initiative
PQM	Promoting the Quality of Medicines Program
QA/QC	Quality Assurance/Quality Control
PQ	Prequalification
RDMA	Regional Development Mission for Asia
USAID	United States Agency for International Development
USP	United States Pharmacopeia
WHO	World Health Organization

Background

Malaria remains a disease of public health importance in the Greater Mekong Sub-region (GMS), the impact of which is compounded by increasing concerns about the emergence of artemisinin-resistant malaria in specific “hotspots” in the region, especially in some border areas between Cambodia/ Thailand, Thailand/Burma, and recently between Cambodia/Vietnam.

PQM works to strengthen medicines quality assurance (QA) systems by providing technical assistance to national medicine quality control laboratories and national disease programs in the GMS. Since 2003, PQM has worked with the Ministries of Health in Cambodia, Laos, Thailand, Vietnam, and the Yunnan province of China to develop mechanisms for ensuring the quality of medicines, including antimalarials, by equipping laboratories, providing expert training and protocol development, and serving as a resource for technical guidance on addressing medicines quality. Recently, Burma became the newest country to join the other GMS countries in introducing PQM medicine quality monitoring (MQM) activities.

The overall goal of PQM in the GMS is to establish sustainable systems for quality assurance and quality control (QC) of essential medicines.

Objectives of the trip

In Bangkok, Thailand:

- Participate in the President’s Malaria Initiative (PMI) Partners’ meeting and present PQM’s work and strategies to address the medicines quality problems in the GMS.
- Conduct a training workshop on establishing an MQM program for antimalarials in malaria clinics in Thailand.

In Jakarta, Indonesia:

- Meet with program partners to discuss developing an action plan for implementing an MQM program in selected provinces in Indonesia and follow up on the progress made by anti-tuberculosis (ATB) medicines manufacturers (Phapros and Indofarma) in the World Health Organization (WHO) Prequalification (PQ) process.

Trip Highlights

Thailand — PMI Partners Meeting: March 23, 2012

The PQM team participated in the PMI partners meeting and gave three presentations for input from the partners: a) an overview of PQM’s work in the GMS related to monotherapies and counterfeit and substandard antimalarials; b) PQM’s approach to get rid of “bad” medicines from the market; and c) an update on the FY12 work plan implementation status on Burma and Cambodia. PQM also shared information on the June trainings in Burma.

The agenda can be found in *Annex I*. The PQM presentations can be obtained by contacting Dr. Souly Phanouvong: SXP@usp.org

PQM’s efforts will focus on specific cross-border areas between Cambodia/Thailand, Cambodia/Vietnam, and Thailand/Burma where concerns have been raised about “hot spots” for artemisinin-resistant malaria. PQM is intensifying its efforts to monitor antimalarials from these

areas by increasing the frequency of sampling and the number of samples. Besides local program partners, international partners are also encouraged to collect and send samples to the sentinel sites and QC labs for testing. Results will be shared with relevant agencies in a timely manner.

The PQM team shared some key challenges with the meeting participants. These include:

- Finding and establishing reliable implementing partners in Burma
- Overcoming challenges and sensitivities for smooth implementation of program activities
- Addressing delays in program implementation due to limited clarity regarding marking/branding and how to spend funds.

Next Steps:

- PQM will kick off program implementation in Burma by conducting training workshops on a) Establishing a pilot MQM program for antimalarials in selected provinces in Burma; b) Confirmatory analysis of antimalarials; and c) base-line survey on antimalarials in target geographical areas of Tier 1 at the Artemisinin-resistant Containment Project – by June 2012 – *completed*
- PQM will continue to consult with PMI and the USAID Regional Development Mission for Asia (RDM/A) teams on political and managerial guidance for successful implementation of program activities in Burma – *ongoing*

Indonesia — Development of an MQM implementation plan and Follow up on Progress Made by Phapros and Indofarma: March 24-29, 2012

Dr. Phanouvong teamed up with Dr. Ali Musalkazim, PQM’s in-country consultant based in Jakarta, and met with Dr. Dyah Erti Mustikawati, Program Manager, National Tuberculosis Program (NTP); and Dr. Syamsudin, Director, National Quality Control Laboratory of Drug and Food (NQCL-DF) and his staff members. The group discussed plans for conducting training workshops on anti-tuberculosis (ATB) medicines quality monitoring for five provincial sentinel sites and compendial analysis of selected first-line and second-line ATB medicines for selected provincial QC lab staff in June 2012. Discussions also covered the following topics:

- The need for NQCL-DF to open a bank account as soon as possible to facilitate the fund transfer for PQM program implementation.
- NQCL-DF’s preparations to receive the five Minilabs[®] and chemical reference standards to be sent from PQM for the upcoming training workshops and MQM activities in Indonesia. NQCL-DF management did not anticipate any major issues with clearing the Minilabs[®] and supplies through customs.

The group also finalized the selection of the MQM sentinel sites:

Province	Provincial QC lab	Sentinel Site where Minilab [®] will be located
East Java	Semarang	Surabaya
West Java	Bandung	Serang
South Sulawesi	Jogyakarta	Makasar
West Nusa Tenggara	Denpasar	Mataram
North Sumatra (Medan)	Padang	Medan

Next Steps

- PQM will send a formal request to NQCL-DF for their support in hosting the training workshops – *completed*
- NQCL-DF will submit the detailed budgets for the training workshops and handle logistical arrangements for the participants – *completed*
- NQCL-DF will open a bank account by June 2012 – *not yet completed*

The PQM team also met with ATB medicines manufacturers, Phapros and Indofarma, to receive updates on the progress made by each of these companies in the WHO PQ process. After receiving updates, PQM provided recommendations to help the companies speed up their progress. The topics discussed included the dissolution profile testing on their reformulated 2- and 4- Fixed-Dose Combination (FDC) products; bioequivalence (BE) study protocol finalization; and the contract with Accutest, a contract research organization (CRO) based in India and recommended by PQM for BE studies; and Good Manufacturing Practices (GMP) corrective and preventive action plan (CAPA) implementation related to utilities and lab equipment validation.

The PQM team also met with program partners and local service providers to seek advice on requirements and conditions for opening a PQM office in Jakarta to increase program visibility and representation, as well as to improve coordination and communication with other USAID-implementing partners and relevant public health agencies in Indonesia.

Next Steps

- PQM will send WHO PQ recommended comparator products (Rifadin and Isoniazid) to Phapros and Indofarma for confirming the dissolution profile testing against their test products – *completed*
- Phapros and Indofarma will submit progress reports to PQM – *completed*
- PQM team will report the requirements and conditions for opening an office to USP Legal and Finance Departments for follow up – *report completed and follow up ongoing*

Thailand — Conduct a training workshop on establishing an MQM program for antimalarials at malaria clinics in 22 Provinces – April 2-3, 2012

PQM, in collaboration with Kenan Institute-Asia (K.I. Asia), Bureau of Vector-Borne Diseases (BVBD,) and Thai Food and Drug Administration (FDA), conducted a training workshop for 50 participants from central BVBD and 22 border provinces of Thailand. The training focused on MQM sampling and data management to help strengthen Thailand's post-marketing surveillance activities for antimalarials throughout the border provinces under Global Fund Round 10.

Highlights of the training are included in the table below:

Item	Description
Specific Objectives/ Expected Outcomes	<ul style="list-style-type: none"> • Objective: <ul style="list-style-type: none"> ○ Train participants in sampling, data management, and reporting as well as review some key technical aspects of the basic tests for antimalarials • Expected Outcomes: <ul style="list-style-type: none"> ○ Understand and use the PQM standardized methods and procedures to collect and test samples from malaria clinics and communicate results to stakeholders ○ Properly use MQM forms ○ Increased experience and skills in basic testing and reporting
Venue/Location	Rich Hotel, Nontaburi, Thailand
Organizers	K.I. Asia, Thailand BVBD, and PQM
Sponsors	Global Fund R10 through K.I. Asia
Trainers/Instructors	Dr. Souly Phanouvong, Dr. Asawin Likhitsup, and representatives from FDA, BVBD, and K.I. Asia
Agenda	See Agenda in <i>Annex 2</i> for detailed information.
Trainees	50 staff members from the central BVBD and 22 selected border provinces.
Opening Ceremony	BVBD, K.I. Asia
Modules	<ul style="list-style-type: none"> • Importance of medicines quality in the fight against artemisinin-resistant malaria • PQM standard protocols and guidelines on establishing an MQM program for antimalarials • Sampling protocol and procedures • Data management and reporting • Other materials in the form of presentations were also provided from other agencies including FDA, BVBD, and Global Fund
Training materials provided	<ul style="list-style-type: none"> • Each participant received a set of bilingual training materials (Thai and English) • The training workshop was conducted in Thai
Outcomes/Conclusion	<p>Training modules were delivered and completed successfully.</p> <p>The participants:</p> <ul style="list-style-type: none"> • Became familiar with the malaria situation in Thailand and what roles and responsibilities they have to stop it from spreading • Understood and can use PQM standardized methods and procedures to collect and test samples from malaria clinics and can communicate results to stakeholders • Can properly use MQM forms for data collection and reporting • Understand sampling techniques and procedures for conducting sample collection in the field

	<ul style="list-style-type: none"> • Have increased their experience and skills in basic testing and reporting • Understand roles, responsibilities, and relationships between the involved parties (Global Fund, BVBD, FDA, K.I. Asia, PQM)
Next Steps	<ul style="list-style-type: none"> • BVBD and provincial trainees will report the outcomes of the training to their management and seek their support - <i>ongoing</i> • BVBD and provincial trainees will conduct sample collection and testing – <i>ongoing</i> • BVBD and provincial trainees will submit a sub-set of samples (based on the agreed protocol) to BDN for confirmatory testing – <i>ongoing</i> • PQM will submit a progress report to K.I. Asia by June 2012 – <i>completed</i>

Conclusion

The PQM presentations at the PMI Partners Meeting were well-received, and the meeting resulted in some concrete next steps related to upcoming trainings in Burma.

In Thailand, PQM and partners discussed and agreed upon an implementation plan to establish an MQM program and selected five sentinel sites. While in Indonesia, PQM was also able to provide suggestions to two ATB medicines manufacturers to help them in the process of becoming WHO PQ.

The training in Bangkok on establishing an MQM program at malaria clinics was completed successfully, and the participants gained valuable experience and skills that will help them properly sample and test antimalarials.

**PMI Partners Meeting
PREVENTION!
March 23, 2012**

8:00: Arrival, registration

8:15: Introductions

8:30 to 10:00: What are the risks within GMS?

- 8:30: **WHO**: Where is drug resistance confirmed or suspected within the region?
- What risk factors might lead to resistance in new areas? Where are these risk factors prevalent?
 - 8:40: **USP**: monotherapy, sub-standard or counterfeit drugs
 - 8:50: **PSI**: Case management, private sector
 - 9:00: **URC**: Case management, public sector
 - 9:10: **Networks**: Personal protection, sleeping time
 - 9:20: **TBD**: Outdoor and residual transmission (summary of RBM meeting)
 - 9:30: **TBD**: Population movements
 - 9:40: **WHO/Laos**: Unregulated business development
- 9:50: Discussion: Can we identify high risk areas through GIS or other techniques?

10:00 to 10:30: Multi-purpose break

10:30 to 12:45: What are PMI Partners and others doing to mitigate these risks? What more can we do? (BCC and advocacy implications)

- 10:30: **MARC**: Replace mono-therapy
- 10:45: **USP**: Get bad drugs off the market
- 11:00: **CAP-Malaria**: Improve diagnostics, case management, and follow up in the public sector
- 11:15: **CAP-3D**: Improve case management in the private sector
- 11:30: **CAP-3D**: Adapt nets to consumer-driven demand
- 11:45: **DELIVER**: Improve LLIN distribution and use
- 12:00: **CAP-Malaria**: Strengthen prevention and curative services for hard-to-reach populations (seasonal workers, migrants, ethnic minorities)
- 12:15: **WHO/Laos**: Health impact assessments
- 12:30: **GMS-RID**: Build national capacity to eliminate malaria

12:45 to 1:45: Lunch

1:45 to 2:45: Brief Burma updates (not otherwise discussed)

- 1:45: CAP-Malaria
- 1:55: CAP-3D
- 2:05: USP
- 2:15: Malaria Consortium
- 2:25: MARC, Global Fund, other
- 2:35: Discussion

2:45 to 3:30: Brief Cambodia updates (not otherwise discussed)

- 2:45: CAP-Malaria
- 2:55: USP
- 3:05: Malaria Consortium
- 3:15: GF and other
- 3:20: Discussion

3:30 to 4:00: Wrap-up

- Plans for development of MOP13 (Wayne)
- AOB



Thailand Global Fund 2012: Medicine Quality Workshop
March 22-23, 2012 ♦ Rich Hotel, Nonthabury

TENTATIVE AGENDA

DAY 1 –

Time	Topic	Speaker (to be Confirmed)
08:30-09:00	Opening Remarks	WHO, Global Fund Malaria, Kenan, USAID
09:00-09:30	Introduction to Global Fund SSF-M	BVBD
09:30-10:00	Introduction of key partners/implementers	All
10:00-10:30	Coffee/Tea Break	All
10:30-11:00	Roles & Responsibilities	BVBD
11:00-11:30	Introduction to MQM Protocol	PQM
11:30-12:30	Lunch	All
12:30-13:30	Sample collection	FDA
13:30- 14:30	Minilab Demonstration	BDN
14:30-15:00	Coffee/Tea Break	All
15:00- 16:00	Importance of medicine quality in the fight against Artemisinin resistance malaria	PQM
16:00-16:30	Day One Wrap up	PQM

DAY 2 –

Time	Topic	Speaker (to be Confirmed)
08:30-09:00	Workflow introduction [Recap roles and responsibilities]	BVBD
09:00-10:30	Sampling Protocol and Sample Collection Form	PQM
10:30-11:00	Coffee/Tea Break	All
11:00-12:30	Data reporting Introduction of Excel report form	PQM
12:30-13:30	Lunch	All
13:30- 14:30	Networking activity for MQM partners and implementers	All
14:30- 15:30	Q&A Feedback from participants	All
15:30-16:00	Coffee/Tea Break	All
16:00-16:30	Awarding of Certificates and closing	PQM