

**11<sup>th</sup> MALARIA IN PREGNANCY WORKING GROUP MEETING MINUTES  
21 – 23 OCTOBER 2008  
WHO REGIONAL OFFICE FOR WPRO  
MANILA PHILIPPINES**

**A JOINT ROLL BACK MALARIA PARTNERSHIP AND  
WORLD HEALTH ORGANIZATION MEETING**

Report prepared by:  
Nancy Caiola (Jhpiego)

Meeting objectives:

1. To review the status of MIP in the Asia-Pacific region.
2. To provide updates on relevant technical issues, research and tools in development.
3. To identify bottle necks and necessary actions towards the development of relevant policies and guidelines and scale-up of interventions to achieve RBM goals.
4. To strengthen collaboration between national and regional malaria and reproductive health programmes and partners in the Asia-Pacific region to support countries in adopting, implementing and scaling-up appropriate malaria in pregnancy policies and interventions.
5. To share relevant experiences from other regions (Africa, Latin America, Eastern Mediterranean regions) and discuss how the MIP Working Group can effectively support the establishment of a regional forum to foster collaboration between malaria and RH programmes, researchers and key partners to help promote and scale up MIP interventions in the Asia-Pacific region.

## **DAY 1**

### Opening Session

Welcome remarks were provided by Linda Milan, DHP for WPRO. Bill Hawley from UNICEF and Juliana Yartey also offered words of welcome, introduction and background on RBM.

### Session 1: Global burden and epidemiology of malaria in pregnancy and policy options **Burden and Epidemiology of MIP - Dr. Meghna Desai, Dr. Stephen Rogerson**

The presenters highlighted the following points:

- There is a different profile of MIP in stable transmission areas than that found in low and unstable transmission areas. Differences are found in risk of infection, maternal health, birth and infant outcomes
- There is an increased risk of malaria coupled with HIV
- Gaps in knowledge exist regarding estimates of the MIP burden in Asia and Latin America and there is insufficient data on range of issues
- Challenges for low transmission countries include:
  - Wider spectrum of effects
  - Range of transmission intensities
  - Burden and control strategies differ by transmission zone making it difficult to prepare national policies
  - Treatment of severe malaria more is complicated in pregnancy

### **Current WHO Policy on MIP - Presenter: Dr. Peter Olumese**

Dr Olumese reviewed WHO's policy on MIP, pointing out:

- Control strategies remain unchanged and include: Prompt treatment, vector control, IPTp, epidemic preparedness & response
- The methodology for monitoring the effectiveness of IPTp at sentinel sites is in development

- No policy exists yet on IPTp in low transmission areas
- No studies have been undertaken yet on safety of ACT in the first trimester but it was noted that ACT **is** recommended for use when no other **effective** treatment available

In the discussion period questions were raised about effectiveness of bed nets in low transmission areas and there was considerable discussion about whether infections in low transmission areas tended to be symptomatic or not.

### Session 2: Malaria in pregnancy status and implementation experiences in the Asia Pacific region

Two SEARO countries, India and Indonesia, were present and each gave a brief overview of the MIP situation in their countries.

#### **India Country Report - Dr. Daniel Chandramohan**

##### Situation

- Both falciparum and vivax are present; there are varied levels of transmission throughout the country; and generally there is low maternal immunity
- SEARO has more malaria in the 15+ age group than in the entire AFRO region
- Studies in Madhya Pradesh show a wide range in MIP prevalence (55% - 6.4%)
- High rates of adverse pregnancy outcomes have been noted in India, particularly for maternal mortality.

##### Interventions and Issues

- The burden of MIP in India is essentially unknown
- More data is needed to better understand the scope and intensity of the problem

#### **Indonesia Country Report - Presenter: Dr. Rita Kusriastuti**

##### Situation

- Transmission ranges from 0 in some places to high burden in Papua
- Chloroquine resistance is seen throughout the country. Some multi drug resistance has been seen in certain areas.
- A province by province elimination strategy has been outlined by the MOH

##### Interventions and Issues

- The new MIP policy focuses on ANC and includes: LLINs, screening at ANC first visit, treatment with ACT
- Collaboration among programs – malaria and MCH – can be a challenge but it is essential that they do collaborate
- Increasing provider proficiency around new protocols is a challenge
- The question remains whether there is a need for IPT in certain areas.

#### **WPRO Overview - Presenter: Dr. Eva-Maria Christophel, Dr. Jeffrey Hii**

Dr. Christophel pointed out that malaria situation in the WPRO region is very diverse. Incidence is variable, as is type of malaria. There are different degrees of efficacy for chloroquine and SP, depending on the location and there are different treatment policies throughout the region. She noted that there is no regional MIP policy for WPRO and that no country had a policy on IPTp. One commonality is a lack of data to guide national or regional policies. She suggested greater use of community health workers

to combat MIP as static facilities are just not accessible to many in the region. Finally, Dr. Christophel pointed out the challenge of dealing with “pockets” of high transmission within certain countries. Dr Hii presented several studies on vector behavior and noted that prevention strategies should take into consideration what is known about vector behavior, particularly at what time of day mosquitoes tend to bite.

Four WPRO participants continued to present the MIP situation in their countries.

#### **Cambodia Country Report - Dr. Top Samphor Narann**

##### Situation

- There is a high prevalence of malaria in the forest areas
- In Cambodia they are seeing ACT resistance on the Thai Cambodian border
- There is very little data on MIP
- Cambodia uses Village Malaria Workers (VMWs) to reach remote areas

##### Interventions and Issues

- MIP interventions are targeted to 8 endemic provinces
- BCC at the community level is very important
- They are seeing increase in ANC usage as result of ITN distribution
- It is a challenge to integrate with MCH – it easier said than done

#### **Papua New Guinea Country Report - Prof Glen Mola**

##### Situation

- 70% of 6 million population is at risk
- There has been massive overtreatment in the country
- An estimated 5000 deaths occur per year at home – and are not counted
- Poor management of health services makes effective programming difficult

##### Interventions and Issues

- Ability to absorb increased GF funding may be problematic
- Starting RDT and switching first line treatment protocol will be huge challenge to roll out
- Theoretical concepts of “best” shouldn’t constrain us – we should use what we have available while we are searching for the best solution
- We should seize all opportunities to integrate services – don’t forget FP

#### **Philippines Country Report - Presenters: Dr. Yolanda Oliveros, Marvi Trudeau**

##### Situation

- Goal: Malaria free Philippines by 2020 . . . island by island.
- Transmission ranges from high to low, varied.
- Vulnerable populations are in the hardest to reach areas.
- PhilMIS collects malaria data in all endemic provinces
- A public-private partnership exists with the Shell Foundation for distribution of “pregnancy kits”

##### Interventions and Issues

- Pregnancy kits are distributed in highly endemic areas and consist of: LLIN, deworming tablet, iron, IEC materials and mother and child booklet
- Distribution of kits has increased ANC attendance

- Integration into routine maternal health services has worked well
- Private sector support enhances MOH efforts
- Data reporting using SMS is being tested.

### **Solomon Islands Country Report - Presenters: Dr. Lyndes Wini, Judith Seke**

#### **Situation**

- 992 islands; population 566,842; fertility 3.7
- Goal: reduce parasite incidence rate by 29%; reduce malaria related deaths by 49% by 2009
- AIR128 per 1,000; mostly falciparum
- Very little data on effects of MIP
- Current policy includes CQ prophylaxis; distribution of LLIN, screening at first ANC visit, anaemia screening

#### **Interventions and Issues**

- Launching of ACTs and RDT in December this year
- Waiting for results of IPTp study before deciding on IPT guidelines
- Aiming at 100% population coverage with ITNs

#### **Summary of common themes and issues raised during presentations and discussions on Day 1:**

- Malaria transmission in Asia is characterized by pockets or hot spots; there are varied transmission rates within countries – this differs from the more uniform profile of MIP in most African countries.
- There is a need to integrate MIP efforts into broader MNH and Reproductive Health services and interventions.
- Countries in Asia tend to have phased elimination strategies, island by island or province by province (or “swamp by swamp” as suggested for PNG), which reflect the varied levels of transmission in those countries.
- Partnerships are essential for making headway on MIP efforts. These include both public-private (Philippines as an example) and public-public (Malaria, Reproductive Health and MCH units within MOHs working closely together)
- New prevention and treatment protocols coming on line present challenges to weak health systems and overburdened health care providers.

## **DAY 2**

### **Session 3: Research: Addressing the Knowledge Gaps**

#### **Overview of the malaria in pregnancy consortium and ongoing research -**

##### **Presenter: Dr. Feiko ter Kuile**

The aim of the MIP Consortium is: To identify & evaluate, as speedily and effectively as possible, new ways of preventing and treating malaria in pregnancy to improve the evidence base for its control. The MIP Consortium consists of 41 institutions in 29 countries. Funded mainly by the Bill and Melinda Gates Foundation. Main research themes include: case management; prevention (Africa); prevention (Asia and Latin America); and public health impact.

There is an urgent need for data on efficacy, safety and dosing for MIP; and an urgent need for new drugs. Almost nothing is known about appropriate prevention/control strategies for Pf and Pv.

Studies underway:

Case management studies in Africa, Asia and Latin America

Objective: To identify at least 2 drug combinations that are safe, practical to use (3 day regimen or shorter) and highly effective for the treatment of uncomplicated falciparum and vivax malaria in pregnancy

Prevention Studies in Africa on IPTp

Objective: To optimize the existing regimen IPTp with SP in context of ITNs (Integrated approaches); and To identify at least 1 safe and effective alternative to sulfadoxine-pyrimethamine (SP)

Burden and Prevention Studies in Asia Pacific

Objectives: To better define the burden of Pf and Pv in pregnancy; and to determine the optimal strategy for the control of malaria in pregnancy in areas with low falciparum and vivax malaria in Asia and Latin America.

A 5 year research program is to start in 2009 – it will be several years before new evidence emerges.

#### **Case Management of MIP in Latin America Presenter: Meghna Desai**

- Looking at efficacy of two different treatment regimens for MIP (MQ-AS vs Coartem)
- No data on either drug in pregnant women
- Planning multi-site study in 3 countries
- Outcome of interest – PCR adjusted 63 day cure
- Results available in 2011
- Will inform whether the current treatment regimen in current dosage is efficacious in pregnant women

#### **Case Management of MIP In India - Presenter: Daniel Chandramohan**

- Looking at effective drug treatments for MIP
  - 3 comparison groups using different drug combinations (AS+MQ, DHA+PPQ, AS+SP)
  - Data available 2011
- Looking at barriers to scaling up preventive interventions by examining current status of CQ chemoprophylaxis through interviews of providers and users

#### **Role of IPT and Intermittent Screening in the Asia Pacific Region Presenter: Daniel Chandramohan**

- What is more effective: IPT or Intermittent screening and treatment (IST) for control of MIP in Asia Pacific region?
- If less than 10% prevalence is there a role for IPT?
- At what level of transmission is IPT appropriate – there is a need to define this
- As transmission increases – the cost effectiveness of IPT should also increase

- What is feasibility of general screening?

### **Research in Cambodia**

- Pilot study in Rattanakiri Province
- Objectives:: Assess MIP prevalence using RDT; and to assess the feasibility of routine malaria screening with RDTs and treatment at HC and in community (several other objectives)
- Looking at 3 of 11 health centers; enrolling all pregnant women in catchment areas of HC or VMW – VMWs will screen and treat
- Not yet started

### **Research in Solomon Islands**

- Evaluation of IPTp with SP vs CQ prophylaxis, randomized control study
- Looking at placental malaria by treatment group among primigravidae
- Research questions: what is burden of MIP; does IPTp with SP work in Solomon Islands, is it better than CQ prophylaxis, does it impact on *P. Vivax*
- Enrolling 2504 women
- Not yet started; will run for one year
- Funded by Global fund and AusAID

### **Research in Indonesia**

- Assess the burden of MIP in eastern Indonesia
- Determine prevalence of *P. falciparum* and *P. vivax* in ANC and at site of delivery
- In two districts Southwest Sumba and Jayapura
- Started in June 2008 will end May 2009
- Preliminary data shows high rate of asymptomatic malaria
- Prevalence seems to vary village to village

### **Research in PNG**

- Testing IPTp with azithromycin plus SP, compared with SP and CQ
- Az is synergistic with anti malarials - in Malawi SP + Az showed increased cure of infection
- Dose of Az can treat STIs, may improve pregnancy outcome and possibly impact on HIV transmission
- Taking place at hospital, clinics and HCs around Madang; women enrolled in second trimester
- Primary outcome: % LBW
- Research is underway – have started enrolling

### **Summary of research issues raised**

There is a need for “action research”, to evaluate ongoing approaches that countries in Asia are undertaking, particularly those doing screening. These approaches should be evaluated while more formal studies are underway. There is a need for standardized treatment registers to understand effect of anti malarials in pregnancy (including ACT

in first trimester). There was a persistent feeling that data must be available in China about use of ACTs in pregnancy but there was no common agreement on the feasibility of accessing that data.

### **DAY 3**

#### Session 4: The "way forward" for the countries in the South East Asia and Western Pacific regions

Three groups made presentations from their small group work of the previous day. The two groups representing country efforts reviewed their different approaches for combating MIP and highlighted the following common bottlenecks:

- Human resources – retraining providers on new protocols, and retention of providers
- Logistics for distribution of bednets, RDTs and lab supplies
- Coordination issues between malaria and MCH units and up and down the health care system

The country representatives felt that a regional policy and Plan of Action for the Asia Pacific region would be helpful to their efforts. All agreed that the entry point for MIP was facility or community based contact with pregnant women. Countries were trying out a variety of incentive schemes to get women into care.

The group representing research gaps identified gaps in the areas of:

- Burden, epidemiology and basic science
- Treatment
- Prevention
- Operational research

The research group noted that we need to start moving toward definition of prevention/treatment strategies according to levels of transmission, i.e. low, medium and high transmission strategies. Dr. Feiko pointed out that this would be helpful for Africa as well when rates of transmission there begin to fall. The MIP Consortium bring together groups and promote standards so that research studies are comparable at meta analysis level – this is key. Countries should be able to get guidance from MIP C as they proceed with their own research and not wait for Consortium to do the research itself.

#### Session 5: Update on technical issues and tools in development

This session focused on tools that are currently available that can be modified\ adapted for use in Asia:

J. Namboze gave a brief overview of the MIP work in the AFRO region and presented the WHO document: **MIP Guidelines for Measuring Key M&E Indicators** – currently available.

Chilunga Puta gave a brief overview of MIPESA's work in East and Southern Africa and presented the elements of **Focused Antenatal Care and Performance Improvement**.

Kwame Asamoah gave a brief overview of RAOPAG's work and presented the **MIP Rapid Assessment Manual**, (not yet ready for distribution) the objectives of which are to:

- Measure the prevalence of malaria among pregnant women;
- Measure the effect of MIP on the newborns;
- Determine the opportunities to address the problem; and
- Build national capacity for operational research.

Nancy Caiola presented and distributed CDs of the newly released **Malaria in Pregnancy Resource Package** which includes the MIP Implementation Guide, training materials and job aids, and a variety of resource documents (including the WHO M&E guidelines). The delegation from Indonesia commented that they had already taken the training materials in this package and adapted it for use in Indonesia. It was noted that the MIP was applicable to all situations, not just Africa.

The final two sessions focused on an update from RBM, adoption of last MIP working group meeting minutes, work planning, review and next steps.

### Conclusions

- Tools are available now that can be adapted for use at the country level – translation from Africa context to Asia can happen
- Public private partnerships, such as exists in the Philippines, are effective for scaling up. Replication should be explored.
- The MIP Consortium is one source that can serve as a technical resource base for country level research efforts
- There is a great deal of interest in moving the MIP agenda forward in the Asia region and much to be learned from ongoing efforts. In order to keep the momentum of this meeting alive it was concluded that every other meeting of the MIP Working Group would be held in Asia.

### Recommendations

- Prioritize the definition of an appropriate package of services for heterogeneous transmission and conduct research to evaluate the impact of this package in different settings
- Conduct research on manifestation of malaria in pregnant women vs non pregnant women in low transmission areas as well as correlation between infection and disease
- Evaluate ongoing approaches in low and medium transmission areas, particularly those undertaking screening
- Prioritize development of standardized treatment registers to understand effect of anti malarials in pregnancy (including ACT in first trimester)
- Advocate with manufacturers to modify dosages for pregnant women
- Develop an Asia Pacific strategy to guide countries in the region
- Maximize existing Asia Pacific regional networks to support MIP efforts (as opposed to creating a new network)

It was agreed that the next meeting will take place in April 2009 in Africa; the following meeting in SEARO (Indonesia – Oct 09). An agenda item for the April 2009 meeting will be to discuss the executive positions of the MIP Working Group.



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*11<sup>th</sup> Meeting of the RBM  
Malaria in Pregnancy Working Group*

*21 – 23 October 2008  
Manila, Philippines*

*ENGLISH ONLY*

*22 October 2008*

**PROGRAMME OF ACTIVITIES**

**Rapporteur: N. Caiola**

**Co-rapporteur: M. Desai**

**Day One: Tuesday 21 October, 2008**

**8:30-9:00 REGISTRATION**

**9:00 - 10:00 OPENING CEREMONY**

Welcome/opening remarks by WHO WPRO

- L. Milan, DHP

Remarks by Co-chair, MIP (UNICEF)

- W. Hawley

Remarks by Chair, MIP and review of meeting objectives and agenda

- J. Yartey

Administrative announcements

- N. Awin

**\*\*\*\*\*GROUP PHOTOGRAPH\*\*\*\*\***

**10:00 - 10:30**

**COFFEE/TEA BREAK**

**Chair: Dr Glen Mola, PNG**

**Session 1: Global burden and epidemiology of malaria in pregnancy and policy options**

**10:30 - 11:00** Burden and epidemiology of malaria in pregnancy

- M. Desai

11:00 - 11:20 Current WHO policy on malaria in pregnancy - P. Olumese

## **A. SITUATION ANALYSIS**

### **Session 1 Continued: Malaria in pregnancy status and implementation experiences in the Asia Pacific region**

#### **11:20 - 12:30 South East Asia Region**

India country report (20') - D. Chandramohan

Indonesia country report (20') - R. Kusriastuti

Discussion of technical issues and bottle necks, recommendations (20 mins)

#### **12:30 - 2:00 LUNCH**

#### **Chair: Dr Rita Kusriastuti, NMCP Indonesia**

### **Session 2: Malaria in pregnancy status and implementation experiences in the Asia Pacific Region continued**

**2:00 – 3:50 Western Pacific Region – Overview (10')** - E. Christophel

Cambodia country report (20') - T. Narann

Papua New Guinea country report (20') - G. Mola

Papua New Guinea - J. Hii

#### **Session 3**

Philippines country report (20') - Y. Oliveros/M. Baquilod

Solomon Islands country report (20') - L. Wini

Discussion of technical issues and bottle-necks, recommendations (20')

#### **3:50 - 4:20 COFFEE/TEA BREAK**

#### **Chair: Dr Bill Hawley, UNICEF**

### **Session 3: Experiences from other regions: Sharing best practices and experiences**

**4:20-5:00 AFRO (15')** - J. Namboze

MIP country coalitions (MIPESA, RAOPAG, LA) - Dr K. Asamoia

Focused Antenatal Care (FANC ) - C. Puta

Discussions (10')

Integration - Indonesia experiences - video

### **WELCOME COCKTAIL**

#### **Day Two: Wednesday 22 October, 2008**

**8:30 - 9:00** Summary of previous day's deliberations

#### **B. KNOWLEDGE GAPS, RESEARCH**

**Chair: John MacArthur, USAID**

##### **Session 4: Research: Addressing the knowledge gaps**

**9:00 - 9:30** Overview of the malaria in pregnancy consortium and ongoing research - F. ter Kuile, MiP

**9:30 - 10:00** Case management of malaria in pregnancy in the Asia Pacific region consortium - M. Desai/D. Chandramoh

**10:00 - 10:30** **COFFEE/TEA BREAK**

##### **Session 4 cont'd: Research: Addressing the knowledge gaps**

**10:30 - 11:40** Other ongoing research in the Region:

India (15') - D. Chandramohan

Papua New Guinea (10') - S. Rogerson

Cambodia (15') - NMCP

Solomon Islands (15') - NMCP

Indonesia (15') - D. Syaffrudin

**11:40 - 12:00** Role of IPT and intermittent screening in the Asia Pacific region - D. Chandramohan

**12:00 - 12:30** Discussion, conclusions and recommendations

**12:30 - 2:00** **LUNCH**

**2:00 - 3:30** **Guidance on group discussion**



- 1:30 - 2:00** Update from the RBM Partnership Secretariat - RBM  
Board Decisions, MIST, Global Malaria Action Plan, GFATM
- 2:00 - 3:00** Review and adoption of minutes of the last RBM MIP Working Group  
meeting (Apr 08)
- 3:00 – 3:30** Review of MIP working group work plan and budget(2007/08) - J. Yartey

**3:30 - 4:00** **COFFEE/TEA BREAK**

**Session 8: Work planning, review and next steps**

**Co-chairs: Dr Juliana Yartey and Kr Kwame Asamoah**

**4:00 – 4:30** MIP working group work plan and budget (2008/09)

**4:30 - 5:00** Conclusions and recommendations

Closing ceremony



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***23 October 2008***

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