

Rational Pharmaceutical Management Plus Malaria Action Coalition Mission to Ghana: Trip Report

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About RPM Plus

The Rational Pharmaceutical Management Plus (RPM Plus) Program, funded by the U.S. Agency for International Development (cooperative agreement HRN-A-00-00-00016-00), works in more than 20 developing countries to provide technical assistance to strengthen drug and health commodity management systems. The program offers technical guidance and assists in strategy development and program implementation both in improving the availability of health commodities—pharmaceuticals, vaccines, supplies, and basic medical equipment—of assured quality for maternal and child health, HIV/AIDS, infectious diseases, and family planning and in promoting the appropriate use of health commodities in the public and private sectors.

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malaria, Ghana, MAC

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ACRONYMS

ANC	antenatal clinic
CDC	US Centers for Disease Control
IPT	intermittent preventive treatment
ITN	insecticide treated net
JHPIEGO	Affiliate of Johns Hopkins University
MAC	Malaria Action Coalition
MIP	malaria in pregnancy
SP	Sulphadoxine-pyremethamine
USAID	US Agency for International Development
WHO	World Health Organization

BACKGROUND AND INTRODUCTION

The Malaria Action Coalition (MAC), has been developed by the United States Agency for International Development (USAID) to provide supplemental support to the Roll Back Malaria (RBM) program in pursuit of two major targets identified at the RBM summit in Abuja in 2000.

These targets are:

1. To ensure that 60% of people in Africa, particularly children under the age of 5, have access to prompt and effective treatment of malaria illness
2. To ensure that 60% of pregnant women in Africa have access to intermittent preventive treatment (IPT) for malaria

The Coalition is made up of four existing USAID partners that provide technical assistance in case management of malaria and malaria in pregnancy (MIP); the US Center for Disease Control and Prevention, the Maternal and Neonatal Health (MNH) project of Johns Hopkins University (JHPIEGO), the Rational Pharmaceutical Management Plus (RPM+) project of Management Sciences for Health (MSH), and the World Health Organization/Africa Regional Office (WHO/AFRO). MAC brings together varied technical expertise to, in a coordinated manner, assist RBM partners, USAID missions, national governments and the private sector to develop strategic frameworks for malaria control, working in the areas of epidemiology, operational research, policy dialogue, drug management and regulation, drug use and practices, maternal health and antenatal care, behavior change, performance improvement, implementation of pilot studies, and monitoring and evaluation of control practices.

Purpose of the Mission

The MAC partners were invited by the USAID/Ghana mission to visit Ghana to develop a joint work plan for Malaria Case Management and Malaria during Pregnancy. The dates for the trip were Monday 14th April 2003 to Thursday 17th April 2003. The MAC team was composed of at least one representative from each of the four partner organizations, namely:

- WHO/AFRO – Dr. Mark Amexo
- CDC – Dr. Robert Newman
- RPM plus – Dr. Gladys Tetteh
- JHPIEGO/MNH – Ms. Elaine Roman & Ms. Vivienne Ohemeng-Dapaah

Specific Objectives

The specific objectives of the Ghana mission visit were to:

1. Meet with key stakeholders for both malaria case management and malaria in pregnancy to understand the needs of the program for technical support of new policies and their subsequent implementation

2. Collect and review additional relevant documents about malaria in Ghana, particularly in respect to the two focus areas
3. Draft a joint work plan that would specify activities to be carried out by each of the MAC partners

The expected output was a joint work plan that would specify activities to be carried out by each of the MAC partners. This work plan would include activities for both the treatment policy and malaria during pregnancy.

MAIN ACTIVITIES & OBSERVATIONS

Through meetings and formal briefs, the MAC team obtained information from the following key institutions/organizational bodies:

- USAID/Health Population and Nutrition Office
- Reproductive Health (RH) Unit of the Division of Public Health, Ghana Health Service (GHS)
- National Malaria Control Program (NMCP)
- School of Public Health/Gates Malaria Program
- Noguchi Memorial Institute for Medical Research (NMIMR)
- Ghana National Drugs Program
- Ghana Food and Drugs Board
- Malaria Consortium, West Africa Field Office
- WHO, Ghana Country Office
- UNICEF, Ghana Country Office
- Ghana Registered Midwives Association

The MAC team was received with enthusiasm throughout the week. It was obvious that all the key stakeholders welcomed the idea of receiving technical assistance for the MAC focus areas especially in the light of the availability of Global funds for implementation of activities. Partnerships are at the top of the agenda of all the organizations the team met with. The main draw back seemed to be the timelines for the NMCP's implementation of malaria control activities. In order for MAC to support the NMCP's implementation, many activities are dependent upon the finalization of both the nation's IPT policy and the Antimalaria Drug Policy.

Findings

Day 1 (Monday 14th April, 2003)

- Meeting with Jan Paehler, USAID

This meeting clarified USAID's expectations of MAC. MAC is expected to provide highly specific technical assistance to prevention of malaria in pregnancy and the antimalaria drug policy review process in Ghana. Since MAC activities are to support the GHS, provision of technical assistance and helping implementation will largely focus on prevention of malaria in pregnancy, this year.

A work plan for fiscal year 2003 as well as a list of proposed activity for the next fiscal year is expected by USAID. Due to the fact that MAC's plan has to support the NMCP's plan, it is understandable if funds for this fiscal year spill over into the next fiscal year, since the policies are not in place yet.

- Meeting with Professor Isabella Quakyi, Director of the School of Public Health and Gates Malaria Program officers

The director of the school expressed interest in collaborating with MAC. The School of Public Health is collaborating with the London School of Tropical Medicine & Hygiene. It has a training center in its final stages of completion as well as students in 20 focal districts in Ghana who could be pulled to support some of MAC technical assistance activities.

- Meeting with Dr. Irene Agyepong, West Africa representative for Partners in Social Sciences for Malaria Control (PSSMC)

Dr. Agyepong works closely with the Health Research Unit (HRU) of the Ghana Health Service. PSSMC has a database of social sciences in West Africa that could be a potential resource to MAC. The partnership, in conjunction with HRU, is in the process of reviewing grey literature in the area of social research for malaria control and would be interested in collaborating with MAC/NMCP/RH on any research that might be needed.

- Meeting with Dr. George Amofah, Director of Public Health, Ghana Health Service

The director gave a broad overview of Malaria prevention in pregnancy activities and Case management of Malaria. He re-iterated the requirement for a coordinated technical assistance approach and emphasized the need for a firm link up of the National Malaria Control Program with the Reproductive Health Unit. He identified some areas in which technical assistance would be welcome, namely:

1. Inputs into IPT guidelines and Antimalaria Drug Policy review
2. Delivery systems for Antimalaria drugs and modalities for establishing these systems
3. Establishment of modules for training/updating skills of health staff
4. Education of the general public on the switch over of drugs
5. Monitoring quality of drugs
6. Establishment of systems for detecting and managing drug side effects that emerge
7. Economic analysis to determine whether or not drugs will be free in the public sector
8. Establishment of storage areas

A major concern of the director was sustainability of the NMCP's interventions and he advised MAC partners to keep this in mind. Under the current funds approved for receipt from the Global Fund, all RBM activities will be limited to 20 selected districts.

- Meeting with the WHO Representative, Ghana

The WR advised that the Ghana RBM strategic plan should be used as a foundation for all MAC activities. Training and establishment of drug distribution systems are areas proposed by the WR for MAC technical assistance.

Day 2 (Tuesday 15th April, 2003)

- Meeting with Ms. Kathlyn Ababio, President of Ghana Registered Midwives Association

The team was informed that ANC coverage is very high in Ghana, almost 98% and that all ANC's recommend chloroquine chemoprophylaxis in pregnancy. However, only 11.6% of women take malaria prophylaxis in pregnancy. Ms. Ababio informed the MAC team that clients attending Antenatal clinics are subject to user fees in 7 out of the 10 regions of Ghana. The other 3 regions receive Ghana Health Service's exemption package for ANC services. She noted that it is worthwhile determining what is in practice on the ground. Clients attending public ANC's are theoretically exempt from paying user fees for 4 ANC visits, however, this might not be the practice in many regions, as the process is dependent on how quickly the government reimburses the health centers.

It was noted that Insecticide Treated Nets (ITNs) are not available in private ANC. The private sector, in Ms. Ababio's view, provides a higher quality of antenatal care than the public sector. The Midwives in the association have no experience using Sulphadoxine-pyrimethamine, however, they are willing to support Sulphadoxine-pyremethamine (SP) for IPT if Ghana's policy dictates this. Private midwifery homes do not purchase their drugs from the Ministry of Health stores but rather from the pharmaceutical companies. With a switch from chloroquine to SP, the major concerns for the private midwives will be unavailability of the drug in the private sector and high cost differentials in comparison to the public sector. Training of private midwives is done in collaboration with the Ministry of Health.

- Meeting with Mrs. Margaret Gyansah- Lutterodt, Manager, Ghana National Drugs Programme and Mr. Samuel Boateng, Head of Procurement, Ghana Health Service

Procurement of commodities in Ghana is done using a sector-wide approach. Annual procurement, at a national level is done in the following sequence:

1. Initial forecasting using central figures and morbidity data to establish the needs (collaboration with program managers)
2. Costs are determined
3. Funds available are determined from donors and internally generated funds
4. International tendering process (reference to basic pharmacopoeia standards plus price determination)
5. Quality control is built into the process (drugs are tested for before registration - high quality of drugs is essential)

Drugs procured are distributed from the central (national) level to the regional, then district and sub-district level. The set up is a "pull" system with regions requesting the drugs needed (as determined by the lower levels). Lower levels move to higher levels for collection instead of the reverse. Decentralized units may sometimes procure commodities outside the vertical system. Drugs are not provided through kits.

A reporting mechanism, recently put in place by the national drug program, to collect drug use data is not very effective. Pharmacovigilance has also just been established to monitor efficacy of drugs and side effects. In regards to user fees, patients pay for direct costs of commodity only. User fees are charged for cost recovery, however exemption for malaria treatment applies to children under 5 yrs, pregnant women and adults over the age of 70yrs.

Ghana has a national drug list and an essential drug list which is a subset of the latter. Antimalarials approved for use in Ghana, and on the EDL, are chloroquine, amodiaquine, sulphadoxine-pyrimethamine and quinine. Artemisinin derivatives are on the national drug list. Ghana's standard treatment guidelines are reviewed every 2 years and this informs the EDL which is also reviewed every 2 years.

- Meeting with Emmanuel Agyarko, Food and Drugs Board (FDB)

FDB, an arm of the Ghana Health Service, is responsible for ensuring the quality, safety and efficacy of food, drugs, medical devices, cosmetics etc. that are imported into or exported from Ghana. FDB works very closely with the procurement unit of the GHS. Activities of FDB include:

1. Pre-qualification (physical audits of manufacturing companies, FDB representative sits on national procurement bid evaluation committee)
2. Registration (very effective system, registration takes 12-16 weeks; variation takes 4 weeks; import of drugs limited to only 2 ports for effective system; only 8% of commodities by pass this system)
3. FDB does not regulate warehousing of pharmaceuticals (this is a decentralized process)
4. Post market surveillance (spot checking, confirmatory tests)
5. Pharmacovigilance for adverse events monitoring (standardized forms; member of Upsala monitoring system of WHO; reporting restricted to medical practitioners, nurses, pharmacists in public and private sector; technical collaboration with the University of Ghana medical school; reports sent to Upsala)
6. Quality control (drug quality control lab used as a sub regional resource)

Day 3 (Wednesday 16th April, 2003)

- Meeting with Prof. David Ofori Adjei, NMIMR

The team was informed that most prescribers in Ghana are prescribing chloroquine. The quality of prescribing is poor in both public and private sectors, and dispensing is dependent on the buyer's ability to pay. There is a high availability and access to chloroquine in both public and private sectors. Other antimalarials are more available in the private sector. In addition, a high proportion of the population seeks malaria treatment from the private sector. Most antimalarials have an "over-the-counter" status. Each district has a district health center with a dispensary and some have sub-district health posts. Chemical sellers are available in all large communities.

Prof. Ofori Adjei noted that the agenda for policy change has been driven by country. The country is at a point where it has enough evidence to support a move from chloroquine. The institute is rounding up with collection of evidence to enable appropriate 1st line drug choice. Six sentinel sites had been set up for drug efficacy monitoring. This is being increased to 10 sites under the Global Fund.

In Ghana's current malaria treatment policy, there was a stepwise approach for treatment of malaria i.e. chloroquine use as first line, followed by amodiaquine or SP, and quinine for complicated malaria. The effectiveness of this system was however never tested. The country has also never really looked at access to antimalarials in detail for example what happens at the community level, the element of quality in goods and service. The dimensions of access that have been previously looked at are those surrounding availability and affordability.

Another challenge is that, previously, surveillance for resistance has been based on hospital attendance. With the advent of increased education on home management, it is imperative to get the true picture (going to homes to undertake in-vivo studies), since the population attending surveillance sites will be those who have already been treated.

Capacity for monitoring of processes does not really exist. A good monitoring system is needed as the country changes its 1st line antimalaria drug.

- Meeting with Dr. Kojo Yeboah Antwi, Malaria Consortium

The Malaria Consortium is collaborating with the NMCP and other partners working in malaria control. Dr. Yeboah Antwi, the chairman of the IPT subcommittee, said he welcomes input on 4th draft of IPT guidelines.

- Meeting with Dr. Constance Marfo, National Malaria Program Manager

Areas of need required by the NMCP are in the area of IEC, especially education and sensitization. A baseline survey of six districts, carried out with in 2001, determined that SP was not available in health centers but was in communities. There are many pre-conceptions of adverse events associated with SP use and it is important that health personnel and the general public be educated about these.

- Meeting with Dr. Fleischer Djoleto, National Reproductive Health Officer, WHO

Most Ghanaians do not like chloroquine due to its reactions such as itching, and its increasing resistance. It has been found that most pregnant women in Ghana make 2.5 ANC visits instead of the recommended 4. IPT with SP is a part of the making pregnancy safer program of WHO. WHO is committed to collaborating with MAC in its focus areas.

Day 4 (Thursday, 17th April, 2003)

- Meeting with Dr. Kojo Koram, Principal Investigator, Chloroquine Efficacy Studies

NMIMR is undertaking a study funded by WHO to determine the efficacy of chloroquine. The project is ongoing in 6 sites (district hospitals – Tarkwa, La, Hohoe, Sunyani, Yendi, and Navrongo). A WHO protocol is used to follow up children between 6 and 59 months to determine their response to chloroquine. Chloroquine, purchased locally, is tested at the Ghana Standard Board and used for supervised treatment. On day 3, 7, and 14 symptom clearance and parasite clearance is determined. Results show up to 25% chloroquine resistance – best results 86% clinical response and worst 63%. Parasite clearance on day 14 is 60%. Within the next 6 weeks, the project is collecting data on potential treatments (Coartem, Sulphadoxine-pyrimethamine, Amodiaquine + Artesunate[co-administered]). With the increase in the number of surveillance sites, assistance with capacity building would be appreciated.

- Meeting with Dr. Henrietta Odoi-Agyarko, Director, Reproductive Health Unit

The RH unit has updated GHS's antenatal card that is used by both the public and private sector, to include SP. Dr. Agyarko urged Dr. Amexo, a member of the Antimalaria Drug Policy Review Task Force, to speed up the development of the IPT guidelines. The RH unit will use different meetings and fora to educate health workers and pregnant women on the safety of SP for IPT. The RH unit would be interested in lessons, surrounding IPT implementation, learned from other countries. ANC attendance, in the director's estimation is 22% in the first trimester, very high in the second and 21% in the third trimester.

Output

It was agreed among the MAC team members that it would be more useful to present USAID with a list of activities that MAC would undertake. The following document was therefore presented to Jan Paehler and Ursula Nadolny of USAID:

MAC Team: Ghana Visit April 14-17, 2003

Team Members

CDC: Dr. Robert Newman; RPM Plus: Dr. Gladys Tetteh; WHO/AFRO: Dr. Amexo; MNH/JHPIEGO: Ms. Vivienne Ohemeng-Dapaah & Ms. Elaine Roman

Assumptions

- Some activities from current FY may carry over into next FY
- The USAID/Ghana priority for the current FY is malaria during pregnancy
- In country implementation of most activities will be led by JHPIEGO and RPM Plus with technical support from CDC and WHO/AFRO
- All work plan activities are designed to provide technical assistance to support the work of local in-country efforts
- Many activities are contingent upon finalization of the IPT policy
- There is a need to maintain flexibility in the work plan as new activities will likely arise as the process develops

Activities up until September 2003

- Technical input towards finalization of IPT guidelines and policy
- Participation in Anti-Malarial Drug Task Force (ongoing)
- Consensus building and support for new IPT and first-line drug policies (ongoing)
- Review exemption practice for 20 Global Fund priority districts
- Support for stakeholders' consensus meeting to address apprehensions, concerns, attitudes towards SP- emphasizing the link between malaria control and RH
- Provide support to MOH for review of IPT drug needs and costs
- Work with National Drug Program to re-rate SP for new policy
- Technical support for repeat baseline study for 20 new Global Fund districts (can be linked into social science research)
- Review of existing behavioral studies on malaria during pregnancy- in collaboration with Partnership for Social Science in Malaria Control
- Support for social science research at community and health facility levels as a background for IPT implementation
- Support the idea of malaria during pregnancy as a package of interventions: IPT and ITNs

Beyond September, 2003

- Adaptation of malaria during pregnancy training materials
- Support for development of a communication strategy for malaria during pregnancy
- Development of community and provider education materials
- Support for training of trainers as well as training of providers and supervisors
- Support for IPT drug management (system for procurement and distribution)
- Support for Monitoring and Evaluation plan for malaria during pregnancy
- Support for adverse events monitoring and management
- Examination of SP availability and quality in the private sector
- Support to the National Food and Drug Board
- Technical assistance for future rounds of the Global Fund process

USAID was very pleased with the document and together with members of the MAC team, the following next steps were agreed upon:

1. MAC representatives, on the Ghana mission, need to discuss the document with their supervisors with the aim of fleshing out individual activities and assigning budgets.
2. USAID will decide on what results they expect to be incorporated into the work plan and give feedback to the MAC team.
3. Jan Paehler will dialogue with the Director of Public Health to determine if all the areas of technical support listed are welcome by the National Malaria Control Program.
4. The team of MAC representatives will finalize the work plan at the May 5-6 2003 MAC meeting in Washington DC, USA.
5. The detailed work plan will be presented to USAID on May 9th 2003.