

# Rational Pharmaceutical Management Plus Participation in Malawi Presidential Malaria Initiative Stakeholders and Planning Meetings November 8-11 and November 26-December 8, 2006: Trip Report

---

Edmund Rutta  
Oliver Hazemba  
Michael Gabra

Printed: January 2007



---

Rational Pharmaceutical Management Plus  
Center for Pharmaceutical Management  
Management Sciences for Health  
4301 N. Fairfax Drive, Suite 400  
Arlington, VA 22203  
Phone: 703-524-6575  
Fax: 703-524-7898  
E-mail: [rpmpius@msh.org](mailto:rpmpius@msh.org)

Supported by the U.S. Agency for  
International Development

***Rational Pharmaceutical Management Plus Participation in Malawi Presidential Malaria Initiative Stakeholders and Planning Meetings November 8-11 and November 28-December 8, 2006: Trip Report***

This report was made possible through support provided by the U.S. Agency for International Development, under the terms of cooperative agreement number HRN-A-00-00-00016-00. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the U.S. Agency for International Development.

**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.

This document does not necessarily represent the views or opinions of USAID. It may be reproduced if credit is given to RPM Plus.

**Recommended Citation**

This report may be reproduced if credit is given to RPM Plus. Please use the following citation.

Rutta, E, Hazemba, O and Gabra, M. 2006. *Rational Pharmaceutical Management Plus Participation in Malawi Presidential Malaria Initiative Stakeholders and Planning Meetings, November 8-11 and November 26–December 8, 2006: Trip Report*. Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health.

## **CONTENTS**

Contents .....	3
Acronyms .....	4
Background .....	5
Purpose of Trip .....	5
Scope of Work .....	5
Activities .....	6
Next Steps .....	14
Annex 1. PMI Stakeholder’s Meeting Agendas .....	15.
Annex 2. List of Contacts .....	16
Annex 3. Price Comparison of Antimalarials in Retail Pharmacies in Malawi .....	17

## ACRONYMS

ACTs	Artemisin-based Combination Therapies
CDC	Centers for Disease Control and Prevention
CHAM	Christian Health Association of Malawi
CHSU	Community Health Sciences Unit
CMS	Central Medical Stores
DFID	Department for International Development
DHO	District Health Officer
DMCC	District Malaria Control Coordinator
GFATM	Global Fund for AIDS, Tuberculosis and Malaria
GOM	Government of Malawi
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HMM	Home Management of malaria
HSA	Health Surveillance Assistant
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illnesses
IPT	Intermittent Preventive Treatment
ITN	Insecticide Treated Nets
JSI	John Snow Inc
KCH	Kamuzu Central Hospital
MOH	Ministry of Health
MSF	Medicines San Frontiers
MSH	Management Sciences for Health
NGO	Non-governmental Organisation
NMCP	National Malaria Control Programme
OIs	Opportunistic Infections
PMI	Presidential Malaria Initiative
PMPB	Pharmaceutical Medicines & Poisons Board
PSI	Population Services International
PSU	Pharmaceutical Support Unit
RMS	Regional Medical Store
SP	Sulfadoxine-pyrimethamine
SWAp	Sector Wide Approaches
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

## **BACKGROUND**

Management Sciences for Health's (MSH) Rational Pharmaceutical Management Plus (RPM Plus) Program has received funds from USAID to develop strategies to implement malaria policies and to provide technical assistance in pharmaceutical management for malaria. RPM Plus is a key technical partner in the USAID Malaria Action Coalition (MAC) and is providing direct technical assistance to Roll Back Malaria Secretariat.

RPM Plus has also provided assistance in planning for the implementation the new President's Initiative on Malaria in Africa in the first three countries-Tanzania, Uganda and Angola. Announced in June 2005, this initiative seeks to "*dramatically reduce malaria as a major killer of children in sub-Saharan Africa*" by rapidly scaling up proven malaria prevention and treatment interventions, including treatment with artemisinin-based combination therapies (ACTs), intermittent preventive treatment of pregnant women with effective antimalarials, distribution of insecticide treated nets, and indoor residual spraying.

In May 2006, in preparation for PMI country planning and implementation, the US Government conducted a rapid assessment and subsequently solicited the Rational Pharmaceutical Management Plus (RPM Plus) Program of Management Sciences for Health (MSH) to provide support to key technical areas of the Malawi PMI Country Operational Plan.

### **Purpose of Trip**

Oliver Hazemba, Regional Technical Advisor and Edmund Rutta, Senior Program Associate, MSH/RPM Plus traveled to Lilongwe to participate in the Malawi Presidential Malaria Initiative stakeholders and planning meetings. This was a follow up to Michael Gabra, Program Manager for East Africa, MSH/RPM Plus earlier visit and consultation with USAID, PMI team and other stakeholders. Michael presented a brief description of RPM Plus and its role in pharmaceutical management sector. He also made it clear that RPM Plus is interested in working with all stakeholders involved in pharmaceutical management and that often RPM Plus mandate goes beyond the realm of logistics. Michael also gave a brief description of RPM Plus work in Malaria.

### **Scope of Work**

- To participate in the PMI Malawi stakeholders planning meeting.
- Discuss with various stakeholders and assess what has been done in preparation for change to new malaria treatment policy.
- Explore linkages/intersection between malaria and HIV/AIDS pharmaceutical management systems issues in Malawi and propose ideas to strengthen the system.

- Identify areas for RPM Plus technical support to contribute to PMI plans.
- Provide an arrival/departure briefing to USAID/Malawi.

## **ACTIVITIES**

### **1. Participation in PMI Stakeholders Planning Meeting.**

The RPM Plus team participated in the PMI stakeholders planning meeting along with other stakeholders-NMCP, CDC, USAID, UNICEF, WHO, MSH, JSI/Deliver, Glucoms/CMS. The meeting agenda was divided into two sessions, the first focused on treatment component and the second session on pharmaceutical management (see attached details agenda in annex 1). RPM Plus team learned what has been done so far in preparation for change to new malaria treatment policy (key observations summarized below). RPM Plus team provided a brief summary and shared RPM Plus experiences in providing technical assistance in pharmaceutical management for malaria and technical support provided in planning of implementation to other PMI countries.

In addition to the PMI stakeholders meeting RPM Plus was requested to attend a CMS Strategic meeting scheduled for December 7 and 8, 2006.

### **2. Discuss with Various Stakeholders and Assess What has been done in Preparation for Change to New Malaria Treatment Policy.**

As a follow up to a day PMI stakeholder's meeting, RPM Plus team held a series of meetings for a more in depth discussion with several stakeholders who will be involved in the implementing the pharmaceutical management component of the new policy in Malawi. The RPM Plus team met with NMCP, WHO, UNICEF, CHAM, PMPB, MSH-Malawi, JSI/Deliver, CMS and Glucoms. The meetings included discussions and sites visit to Kamuzu Central Hospital, CMS/RMS warehouses in Lilongwe and RMS in Blantyre, Ntchezu district hospital, Biriwiri health and retail pharmacies in Lilongwe. Key observations/findings are:

- The policy review and change with selection of Artemisin-Lumefantrine as the first line treatment has been done recently following the recommendation of the National Malaria Advisory Committee (NMAC) to the MOH. Malawi is at the transition phase, policy change has recently happened and plan for implementation of the new policy are currently under way.
- The National Malaria Technical Committee (NMTC) was established in 2002 and ToR has been developed and several technical working groups (TWG) for various component of implementation of the national malaria strategy established. RPM Plus team was not able to assess how the various TWG have been working and their involvement in implementing the new malaria treatment policy

implementation. However, the current NMTC ToR does not include ACT pharmaceutical management. There is therefore a need to review the TOR to incorporate the ACT pharmaceutical management component either within the either within the Anti-malarial Drug Policy TWG or Malaria Clinical Management TWG or commission a new “ACT Management TWG” that combines the functions of the above TWG and bring together key stakeholders in the ACT implementation (NMCP, CDC, WHO, UNICEF, PMPB, CMS, CHAM, MSH-Malawi, JSI/Deliver and PSI).

- In terms of the current status of funding, ACT procurement including anticipated quantities and timelines for delivery:- Malawi has not secured funds for procurement of ACTs selected as first line treatment from GFATM or any other donor. The estimated annual financing requirement of ACTs in Malawi is US\$9-10 million. The PMI has agreed to fund the first 12-months of Artemether-lumefantrine (Coartem) procurement for Malawi. The NMCP proposes to start working early on round 7 GFATM proposals but also to consider other financing scenarios through Sector-Wide Approach (SWAPs), GOM or other donors including extending PMI support through year 2 if GFATM is not successful again.
- The NMCP preliminary quantification needs for ACTs is 4.5 million courses of treatment of Coartem which will be ordered through the international Public-Private Sector Initiative between WHO and Novartis. These figures are for supplying public health facilities only and do not take into consideration anticipated potential increased utilization of the public facilities as experienced in other countries. The deficit will grow even larger if in the near future Malawi decides to use the community IMCI mechanisms and HSA to deliver ACTs in order to ensure prompt and effective treatment for malaria for children. The quantification data will be reviewed early in January 2007 and need to take into account the MSF proposal to immediately fund ACT needs in 1/29 district (they are waiting for the policy change and availability of training materials), the quantification of 2<sup>nd</sup> line treatment once determined as well as revise the SP needs for IPT.
- Malawi has opted for the national roll out of the new policy for the entire country beginning November 2007. This would require better coordination of various stakeholders and clear outline of their roles and responsibilities in distribution, review and dissemination of guidelines, health care workers trainings and availability of quality antimalaria medicines.
- The ACT distribution plans via the public sector is not in place. The NMCP/PMI agreed timeline for implementation of ACTs is to start ACT use in November 2007. The procurement to be done by UNICEF starting in February. The first consignment is planned to arrive in the country by August 2007 for redistribution to the health facilities. Tentatively, the CMS will be responsible for storage and distribution of medicines to all public sector facilities. The PMI team in

consultation with MOH, NMCP through “ACT Management TWG” once established, will have to determine what roles CMS should play given this short timeline and on going reforms at CMS to improve their performance and accountability. It is important that CMS is fully engaged in procurement planning and stakeholders coordination meetings so that they are aware of their expected roles. At the moment, CMS storage capacity is severely limited to cope with the anticipated huge quantities of expected ACTs to come and it will take sometime to improve as procurement planning and inventory management systems are strengthened. There may be a necessity to contract out storage facility in the interim. A more realistic plan would be to task CMS with distribution as their transport capacity is fairly adequate and gradually shift additional responsibilities as the operation capacity improves.

- The availability and distribution of ACT outside the public sector will be a challenge. The change in treatment policy will have implications for access to treatment in Malawi where majority of individuals first treat fevers at home, using medicines purchased outside the public sector and up to 72% of children with fever are estimated to receive home treatment with either antipyretics or antimalarials before they are brought to the formal health system. Coartem is currently available in the private sector for USD \$15 (see annex 3). This price is out of reach by the majority of the populations at risk of malaria. While the NMCP recognizes that this fact must be dealt with in the near future, discussions on private sector (pharmacies in urban areas, general small shops in the rural) delivery have not proceeded beyond this recognition. Ways to ensure delivery ACTs outside public sector need to be explored to reach the populations that do not seek treatment in the public sector. The PMPB has already registered Coartem (commercial pack) and with change in the present policy, PMPB is ready to designate artemesin-lumefantrine, first-line antimalarial as an over-the counter (OTC) drug. NMCP in collaboration with other stakeholders should critically review the burden of affordability to access artemether-lumefantrin and other ACT alternatives in the private sector outlets. In addition, discussion on how to deal with monotherapies registration available in the market and their availability which will undermine ACT policy is needed.

### **Capacity Building in Pharmaceutical Management**

The capacity for pharmaceutical management (basic quantifications, ordering, inventory control rational use etc) at district and facility level is very weak and this is one area that was strongly recommend as priority for RPM Plus interventions in Malawi. Improved capacity at district and facility level for pharmaceutical management related to ACT policy implementation in Malawi will be a major component of RPM Plus support to PMI plans.

RPM Plus will build on and expand work done by MSH-Malawi in 8 districts on improving drug management skills through training of pharmaceutical technicians and coaching sessions. Also work done by JSI/Deliver to strengthen Logistic Information

System and reporting mechanism along the supply chain. JSI/Deliver intervention focused at training pharmaceutical technicians and nurses at the district hospitals and health centers respectively Findings from the evaluation of JSI/Deliver intervention which identified lack of knowledge in pharmaceutical management among health care workers as a major gap would be incorporated in the planned trainings.

Innovative training strategies such as MTP and a comprehensive supervision plan with activities geared toward improving supervisory skills and capacity will be developed and jointly implemented with other stakeholders.

### **Pharmaceutical Services in Malawi beyond PMI**

The purpose of the RPM Plus team visit in Malawi was to participate in NMCP and PMI stakeholder's planning meetings and identify areas for RPM Plus support to PMI plans in Malawi. However, in discussion with several stakeholders general recurring themes on gaps and challenges in the pharmaceutical services were identified. These have both immediate and long term impact on the plans and eventual success for PMI in Malawi and need to be taken into consideration as implementation of ACT policy is planned. Addressing some of the challenges go beyond PMI; however, PMI will be a good entry to systematically address some of the health commodities and pharmaceutical management gaps from central level all the way to the facilities.

At the national level, there is a structural problem where there is no appropriate national technical leadership for pharmaceutical management issues at the MOH. The PSU under the Health Technical Support Unit it is severely understaffed (currently only one person who is not a pharmaceutical personnel) and is overwhelmed. The Pharmaceutical Service Unit is unable to provide coordination of the key players in pharmaceutical services such as CMS (ensure it performs well, guarantee medicine security in the country), PMPB (ensure product safety, quality assured products in the country etc) and support national programs and health facilities to quantify, rational use, affordability, technical competence in pharmaceutical management (pharmaceutical savvy human resources) and make key policy recommendations. There is a need to advocate to the GOM for staffing PSU with technically qualified pharmaceutical personnel (a minimum of 3) with very clear mandate of roles and responsibilities. WHO country office has already proposed to the WHO AFRO to support the recruitment of personnel at the MOH and efforts to strengthen the PSU.

Malawi plans to systematically carry out quantification, forecasting and budgeting for essential medicines. With support from JSI/Deliver, the plan is to develop a National Stock Consumption Data Base early next year by carrying out quantifications and forecasting for all commodities incorporating program expected expansion or reduction. This process need to be consultative and should involve all key players-CMS, UNICEF, CHAM, vertical programs (TB, HIV/AIDS, Malaria etc) and the Health Technical Support Unit at MOH. The proposed review of the ACTs quantification by NMCP and other stakeholders with technical support from RPM Plus should be a priority activity.

The communication and sharing of information with programs and among various stakeholders to ensure uptake and utilization of the generated consumption data and information need to be improved.

### **Central Medical Stores**

The CMS issue is critical to the future of Malawi pharmaceutical services and health services in general. As a national strategic pharmaceutical institution and procurement agent for essential medicines, CMS performance and accountability need to be restored to bring back confidence of several stakeholders and donors including the GF to use it as a credible national procurement agency. The regular stock outs and emergency procurement of essential medicines is a serious problem and an indicator of poor performance. While visiting the health facilities, essential medicines such as insulin and quinine tablets were out of stock for the previous four months.

Glocoms, a consulting company with a two year management contract to run CMS acknowledge challenges ahead in bringing needed reforms to improve CMS operation capacity. The company is staffed with three senior staff-Finance and Admin manager, Procurement Specialist, and Senior Manager together with CMS director forms the CMS management team that is answerable to MOH Permanent Secretary. The team has already carried out several assessment/reviews in preparation for transforming CMS into a semi-autonomous trust status.

While discussing with management, we were informed of the CMS Strategic Planning workshop scheduled for December 7 and 8. An RPM Plus team member attended the workshop that was on sharing experiences and develop strategic plans owned by all stakeholders to ensure implementation, create a paradigm shift and culture of change within the reform process.

The CMS with the guidance from Ministry of Health has adopted cooperate organizations change process, a more strategic approach to improved performance and accountability. The Strategic Planning Workshop strived to inspire confidence building for the institution. CMS now has a vision, mission, values goals and strategic objectives for its operations. The reformed CMS strategic activities will focus on institutional framework of the “Trust” status, human resources, customer care service delivery (forecasting and quantification, procurement, storage/warehousing and distribution), financing, and monitoring and evaluation. However, the details on these strategic objectives were not finalized at the workshop. CMS management was advised to complete the write up urgently and share the document with the participants before it is finalized for public consumption. As soon as the strategic plan for implementation is known, stakeholders should support the process to a robust and efficient pharmaceutical management of the institution, particularly for the ACT policy implementation.

### **3. Explore Linkages Between Malaria and HIV/AIDS Pharmaceutical Management Systems in Malawi and Propose Ideas to Strengthen the System.**

The current systems for HIV/AIDS commodities management and related technical assistance is fragmented, uncoordinated and does not take into account the complexity of an expanding program, changing profiles in treatment outcomes, building capacity at different levels leading to problems with forecasting and quantifications. The supply chain was initially designed as a parallel system for the interim with plans to strengthen the CMS operations and integrate HIV/AIDS commodities into CMS supply chain but that is not happening.

With funds from GFATM through National AIDS Council (NAC), UNICEF is responsible for the procurement of all HIV/AIDS commodities (ARVs, OI medicines and test kits) in Malawi. UNICEF works with HIV/AIDS units under Health Technical Support Unit at MOH to develop a distribution plan. UNICEF is responsible for distribution of ARVs directly to the ART sites while test kits, OI medicines and nutrition supplements are placed into CMS/RMS for on-ward distribution to 120 public and 23 private ART sites. UNICEF also procures malaria commodities such ITNs and support emergency procurement of essential medicines with SWAps funding which are distributed through the CMS supply chain. UNICEF has contracted out clearance, warehousing, pre-packing/assembly and distribution to a private logistics company, SDV.

The electronic pharmaceutical information system (ePICS) installed at Kamuzu Central Hospital to strengthen pharmaceutical management decision and linked to HMIS. The system is currently being used for patient registration, admission/discharge, laboratory specimen management, pharmacy management, voluntary counseling and testing and care of patients on antiretroviral therapy.

Based on the small-footprint touch screen-based clinical workstation appliance, the system offer several technological advantage such the use of embedded version of Linux operating system developed and therefore less prone to virus, use very low power, data stored in a server and the touch screen technology greatly contributes to usability by staff with no previous computer training or experience. Further discussion on how link other software to this technology and expand to other areas of pharmaceutical management need to be explored.

Although both UNICEF and HIV/AIDS unit spoke of no stock out experienced for ARVs, a close examination of the HIV/AIDS commodities supply and management system in place reveals a number of potential weakness/gaps:

- There is a growing concern among various stakeholders that some sites are overstocked with ARVs that are likely to expire in the coming months. There has been ad hoc re-distribution to other sites but this is unlikely to solve the problem.
- To start ART program, Malawi used TB-burden as a proxy for expected number of HIV/AIDS patients and facilities (both public and private) were categorized into three levels: low (allowed to recruit 25 patients per month), medium (recruit 50 patients per month) and high (recruit 75 patients per month) and were given

start-up kits of ARVs. But the ART program is expanding and getting more complex and requires a much more improved quantification and forecasting process.

- The ART program has experienced regular stock outs of test kits due to both scaling up and confusion created by the parallel distribution system at the site level. The test kits meant for PMTCT program only have sometimes been used for the general ART program. Ideally, all HIV/AIDS commodities should be a package for ART site and not for separate HIV/AIDS component.
- Although UNICEF distributes HIV-test kits through CMS/RMS but the CMS/RMS have not been involved in the distribution plan, quantification, information feedback on stock use profiles and are only given a list of sites and how much to deliver. Communication between UNICEF and RMS on delivery schedule could be improved to avoid misunderstanding. Given this experience, the HIV/AIDS unit at MOH did not rule out possibility of setting up yet another alternate system for test kits distribution to the districts to avoid CMS inefficiencies.
- Malawi uses a highly centralized HIV and AIDS Commodities management coordinated from MoH, particularly for increasing patient uptake, site expansion, ARVs quantification, allocation redistribution and supervision. The entire ART support management is currently under three technical assistants and there is growing recognition that for continuity of the program, local national counterparts should be involved and be supported, to start taking on more responsibility in planning and decision making. Technical support from RPM Plus should take into consideration these capacity development needs at the national level as areas that need to be addressed urgently.

#### **4. Identify areas for RPM Plus technical support to contribute to PMI plans in Malawi.**

We identified the following areas that RPM Plus should support PMI in Malawi and develop a detailed work plan for the discussion with the PMI team and NMCP:

- Support to NMCP coordination efforts with stakeholders (review ToR for national Malaria Technical Committee) and establish a technical working group for pharmaceutical management and development of an operational implementation plan for ACTs and other antimalarials.
- Work with the NMCP, UNICEF, CMS and public health facilities at all levels to ensure an effective quantification, procurement, storage, inventory control, repackaging, distribution and drug management information system.

- Collaborate with WHO and NMCP to review and develop training materials (standard treatment guidelines on case management, the pharmaceutical training package and review of IMCI etc) to conform to the national ACT policy.
- Plan the implementation of training of health care workers on new treatment policy.
- Jointly with other stakeholders develop a supervision plan and incorporate MTP strategic approach to performance improvement.
- Provide technical support to Pharmacy Medicine and Poison Board to strengthen registration, inspection system post-surveillance and Pharmacovigilance. Artemether-Lumefantrine and ARVs are all new and expensive drug moieties that require monitoring for their performance in lives of people. For instance, adverse drug reactions, availability and use. In addition, develop mini-lab system for product testing at the port-of entry (POE) and assess the function capacity of the National Quality Control Laboratory (NQLC) to test new ACT and recommend appropriate interventions.
- Further discuss with HIV/AIDS unit at MOH, UNICEF and other partners potential RPM Plus roles in the HIV/AIDS commodity management (forecasting, quantification, training, rational use etc) and the current procurement and supply management systems for HIV/AIDS commodities. Collaborate with UNICEF and MOH HIV/AIDS unit to strengthen HIV/AIDS commodities management at national and district level. RPM Plus has the competence and experience to introduce and strengthen innovative intervention strategies and tools on program performance and quality improvements in the service delivery i.e., Standard Operating Procedures (SOPs), ARVs and other HIV and AIDS commodities supply management and use, adherence and patient profiling monitoring.

##### **5. Provision of an arrival/departure briefing to USAID/Malawi.**

A debrief was held with the USAID/Malawi mission team, Alisa Cameron (Health Team Leader), Lilly Banda (RH Specialist), Catherine Chimphazi (CTO Child Survival) and MSH-Malawi staff (Thetard Rudi and Cynthia Kamtengeni) and Sallie Craig (MSH-Cambridge on TDY in Malawi). A presentation was made and discussion on the next steps. The mission had earlier made appointment for the RPM Plus team to debrief the Permanent Secretary at MOH but this was cancelled due PS other commitment.

## **NEXT STEPS**

### **Immediate Follow-up Activities**

- Complete trip report.
  
- Develop work plan that detail RPM Plus technical assistance in support to PMI for discussion with USAID/PMI team in Malawi.

**Annex 1: PMI stakeholder's meeting agendas**

**Malawi Malaria Drug Change Plan Implementation Discussion NMCP and Partners, November 28, 2006, Community Health Service Unit (CHSU)**

Treatment Component Process	Timeline
<b>Drug Change Plan Process</b> Advisory Committee Technical Committee Efficacy Studies Policy: First-line drug selected Second-line selected Severe management	December 2006   Under review Under review Under review
<b>Guidelines Revised-STGs</b> NMCP and In-Country Technical Partners	By December 2007
<b>Communication Strategy</b> Framework has already been developed still to be finalized	By February 2007
<b>Training materials developed</b> <b>Training materials development and printing</b> <i>Public sector: Health facility and above and need to discuss community issues and private sector next steps.</i>	February 2007 By June 2007
<b>Training of Trainers-cascade</b>	July 2007 Training at @ HF and above August-October 2007
<b>Implementation of new Malaria Treatment Policy</b>	By November 2007

**Malawi Malaria Drug Change Plan Implementation Discussion NMCP and Partners, November 28, 2006, USAID Office.**

Pharmaceutical Management Component	Timeline
<b>Malaria Drugs:</b> ACTs and SP (IPT) and Quinine	On-going
<b>Quantification:</b> need to review/confirm or revise for 1) health facility and above 2007, and 2) community component for 2008	January 2007
<b>Procurement Planning and Procurement...</b> for November 2007 implementation. ACTs arrival in the country by October 2007.	February 2007 March 2007
<b>Drug Management and Supply</b> Training, inventories, logistic, deliveries-central and HF levels. Information management and reporting.	February and on-going
<b>Quality Assurance and Monitoring</b>	On-going
<b>Pharmacovigilance</b>	On-going

*Rational Pharmaceutical Management Plus Participation in Malawi Presidential Malaria Initiative Stakeholders and Planning Meetings November 8-11 and November 28-December 8, 2006: Trip Report*

**Annex 2: List of Person Met**

<b>Name</b>	<b>Organization</b>	<b>Position</b>
Bizuneh, Ketemah	UNICEF	Head of Child Health Unit
Carl Campbell	CDC/Malawi	Malaria
Storn Kabuluzi	NMCP	Program Manager
Doreen Ali	NMCP	
Chalira, Wynn	Pharmacy, Medicine and Poisons Board	Registrar
Que, Nympha	Christian Health Association of Malawi	Pharmaceutical Supplies Officer
Sosola, Aaron	Pharmacy, Medicine and Poisons Board	Deputy Registrar/Head of Technical Services
Thetard, Rudi	Management Sciences for Health	Chief of Party
Cynthia Kamtengeni	Management Sciences for Health	Drug Management Specialist
Johnes Moyenga	Management Sciences for Health	Malaria Specialist
Catherine Chimphazi	USAID/Malawi	Child Health CTO
Lilly Banda	USAID/Malawi	Reproductive Health Specialist
Alisa Cameron	USAID/Malawi	Health Team Leader
Caroline Banda	USAID/Malawi	HIV/AIDS Focal Person
Caesar Mudondo	UNICEF	Procurement Officer
Wilfred Dodoli	WHO	Malaria/EDM Focal Person
Eve Zingano	CMS	Director
Charles Abondo	Glucom/CMS	Senior Manager
Veronica Chipeta	JSI/Deliver	Logistic Associate
Juma Maurice	Glucom/CMS	Procurement Specialist
Judy Wang	Management Sciences for Health	Technical Advisor Pharmaceutical Service, KCH
Gerry Douglas	Baobab Health Inc	
Philip Moses	MOH, HIV/AIDS Unit	Technical Assistant, MOH,
Michael Eliya	MOH, HIV/AIDS Unit	
Lucius Ng'ong'oma.	MOH, HIV/AIDS Unit	
Eric Schouten	MOH, HIV/AIDS Unit	Technical Assistant, MOH,
Marshall Natiasi Nkhoma	RMS Blantyre	Senior Stores Supervisor
Billy Mwapasa	RMS Blantyre	Pharmacist in Charge.
Nicholus Mwamlima	DHO-Ntchezu	Malaria Coordinator
Agnes Mutawanga	DHO-Ntchezu	Human Resource Officer
Cynthia Rowe	DFID (Malawi)	Governance Advisor,
Dr. Kamoto,	Ministry of Health	Director for HIV and AIDS

**Annex 3: Prices Comparison of Antimalarials in Retail Pharmacies in Lilongwe.**

Anti-malarial	Quantity	Price in MWK		Price in US \$	
		Pharmacy1	Pharmacy2	Pharmacy1	Pharmacy 2
Fansidar (Roche)	3 tabs	245.00	245.00	1.79	1.79
SP (Shelys, Tanzania)	3 tabs	50.00	60.00	0.36	0.44
SP Malareich (SmithKline Beecham)	3 tabs		100.00	0.00	0.73
SP Laridox (Ipca Lab India)	3 tabs		50.00	0.00	0.36
Dihydroartemisin + SP, Alaxin (GVS Lab India)	3 tabs		700.00	0.00	5.11
Chloroquine tabs (Pharmanova Mw)	10 tabs	40.00		0.29	0.00
Malaquin syrup (Caps Zim)	100ml	160.00		1.17	0.00
Arinate 100mg (Dafra)	6 tabs	900.00	900.00	6.57	6.57
Arinate 50mg	6 tabs	550.00		4.01	0.00
Arinate 100mg	120 tabs	13,200.00		96.35	0.00
Artesunate Malather (Shely's)	6 tabs		900.00	0.00	6.57
Artesunate Gsunate (GVS Lab, India)	6 tabs		700.00	0.00	5.11
Artemether Gvither syrup (GVS Lab)	100ml		900.00	0.00	6.57
Coartem (Novartis) - reg # 04 - 3275	24 tabs	1,975.00		14.42	0.00
Co-Arinate (adult) (Dafra)	6 tabs	1,265.00	1,200.00	9.23	8.76
Co-Arinate (junior)	6 tabs	835.00	675.00	6.09	4.93
Artesiane suppository (Dafra)	6 tabs	900.00		6.57	0.00
Artesiane suspension	100ml	1,035.00	1,035.00	7.55	7.55
Co-artesiane suspension (Dafra)	60ml	1,200.00	1,200.00	8.76	8.76
Quinine Syrup (Shelys Tanzania)	100ml	240.00		1.75	0.00
Quinine syrup	60ml		160.00	0.00	1.17
Quinine tablets (Shelys Tanzania)	1000 tabs	9,500.00		69.34	0.00
Quinine tablets (Elys Kenya)	1 tab		14.00	0.00	0.10
Quinine inj (Tejay Zambia)	1 vial	40.00		0.29	0.00
Halfan(Glaxo Smithkline)	6 tabs	2,500.00	2,500.00	18.25	18.25
Halfan syrup	30ml	2,260.00	2,400.00	16.50	17.52

*MWK=Malawian Kwacha, 1US\$ = 137 MWK*