Management Sciences for Health
Rational Pharmaceutical Management Plus
Program (RPM Plus)

Support to Malaria Control in Malawi
US President's Malaria Initiative

Work Plan
FY 2007

March 2007

Background

Malawi is one of the high malaria burden countries in sub-Saharan Africa that has been selected in the second round of beneficiary countries by the United States Government President's Malaria Initiative (PMI) which seeks to "*dramatically reduce malaria as a major killer of children in sub-Saharan Africa*[1]". The overall five-year $1.2 billion initiative is targeted towards the rapid scale up in 15 African countries of malaria prevention and treatment interventions such as promotion of insecticide –treated nets (ITNs), indoor residual spraying (IRS), prompt and effective case management of malaria and intermittent preventive treatment. The goal is to reduce malaria-related mortality by 50% after three years of program implementation in targeted countries. It is expected that this malaria mortality reduction will be achieved if each selected country can reach 85% coverage of the most vulnerable groups with proven and effective interventions.

Malaria control interventions in Malawi are guided by the recently developed five-year (2005-2010) Malaria Strategic Plan. This current next generation strategic plan builds on malaria control activities initiated under the Malawi Ministry of Health's previous Malaria Strategic Plan (2000 – 2005). Following a consensus building process, it was agreed that the 2005-2010 Strategic Plan would focus on scaling up the delivery of appropriate Roll Back Malaria partners - recommended malaria interventions. The plan outlines three strategic areas to be scaled up over the stated five-year period. The areas include (1) case management, (2) intermittent presumptive treatment and (3) vector control and personal protection interventions using insecticide-treated mosquito nets. The strategies will be implemented on the basis of the Malawi SWAp arrangement and plan of work and guided by the national policies and guidelines.

In May - August 2006, the PMI Malawi Team conducted a rapid assessment and developed a first-year PMI Malawi operational plan. Subsequently the Rational Pharmaceutical Management Plus (RPM Plus) Program of Management Sciences for Health (MSH) was asked to develop a proposed work plan to provide support to a key technical area of the Malawi PMI Country Operational Plan – pharmaceutical and commodities management. This includes technical assistance for drug supply and logistics management, distribution and information systems, training of pharmaceutical personnel, quality assurance, storage and security, quantification for subsequent ACT orders, and monitoring and evaluation of the pharmaceutical management system for anti-malarials. RPM Plus activities will support technical, regulatory and operational aspects of national artemisinin-based combination therapy (ACT) implementation. The provision of support by RPM Plus to prompt and effective malaria case management is based on a comprehensive approach proposed in the *Implementation Guide* "*Changing Malaria Treatment Policy to Artemisinin-Based Combinations"* prepared by RPM Plus in 2005 in collaboration with the RBM partnership and the Global Fund. Activities will focus on supporting the drug supply and pharmaceutical management with a comprehensive implementation plan to address, storage, distribution and rational use of Artemisinin Combination Therapies considering their two-year shelf life and ten-fold increased price in comparison to previous malaria treatments.

RPM Plus Technical Objectives and Rationale

The RPM Plus Malaria overall strategic objective "*Strengthened health systems for the appropriate management of malaria*" supports the USAID/Bureau for Global Health (BGH) SO5 *"Increased use of effective interventions to reduce the threat of infectious diseases of major public health importance"*, SO3 *"Increased use of key child health and nutrition interventions"* as well as SO2 "*Increased use of key*

[1] http://www.whitehouse.gov/news/releases/2005/06/print/20050630-8.html

maternal health and nutrition interventions". Activities under each technical objective emphasize both treatments of children less than five years and the management and control of malaria in pregnancy (MIP).

Objective 1: Improve the supply and quality of antimalarials and related supplies

RPM Plus plays a strong role in advocacy for appropriate policies and practices that contribute to the reduction of morbidity and mortality due to malaria. Policies need to be supported by the availability of recommended treatments and mechanisms to access them. A key issue is the procurement and distribution of quality antimalarials in quantities sufficient to meet anticipated demand, both in the public and private sector.

Objective 2: Improve the case management and use of appropriate antimalarials

Due to increase in parasite resistance against the existing monotherapies, Malawi NMCP has adopted change of policy from Sulfadoxine Pyrimethamine as first line drug for uncomplicated malaria to ACTs with aim of improving efficacy and delaying development of resistance. In order to have successful implementation of the new policy, appropriate management and use of the recommended antimalarials is essential. This will ensure continuous availability and will curb malaria morbidity and mortality while reducing the development of resistance.

Planned Activities

1. Technical Activity Coordination and Monitoring

Technical activity coordination includes work plan development, budget monitoring, progress monitoring, reporting, meetings, and communications with partners and collaborators.

Implementation of the listed work plan activities will be through the MSH/RPM Plus office in Malawi. RPM Plus is hiring two senior staff in Malawi who will work closely and coordinate with the President's Malaria Initiative team (USAID and CDC), NMCP, Pharmacy Medicine and Poisons Board (PMPB), Central Medical Stores (CMS), USAID/Deliver, Christian Health Association of Malawi (CHAM), UNICEF, WHO and other partners at the national, and at the district level. RPM Plus/Malawi team will receive technical and managerial support from Chief of Party MSH-Malawi, RPM Plus regional malaria technical advisors based in Nairobi and Lusaka as well as the RPM Plus malaria team based in Arlington, Virginia.

2. Provide technical assistance to NMCP to develop operational plan for drug supply and commodities management of antimalarials (ACTs and others) within the context of new malaria treatment policy.

Malawi recently adopted within it's malaria treatment policy, the use of an Artemisinin-Lumefantrine treatment for both first-line and second-line treatment of uncomplicated malaria. Transitioning to the use of ACTs within health systems in Africa brings with it challenges and complexities at every level of the drug supply chain and involve a variety of stakeholders for success. RPM Plus participated in the Malawi PMI stakeholder, Malaria Technical Working Group (TWG) and planning meetings and will subsequently support the NMCP to develop a comprehensive operation plan for drug supply and management for ACT and other antimalarial medicines and commodities. The plan will guide key partners and stakeholders in understanding their respective roles and responsibilities in ensuring the continuous availability, access and rational use of the new efficacious malaria treatment. The plan will address coordination, drug regulatory aspects, quality assurance, quantification, forecasting, procurement, appropriate storage,

security and transportation. The plan will also address communication, monitoring and evaluation and pharmaceutical management capacity building needs. RPM Plus will jointly work with Roll Back Malaria partners in Malawi to address these needs.

Sub-activities include:

- Support to NMCP for the coordination of drug supply and pharmaceutical management subcommittee meetings under/or within ACT implementation task force or Malaria TWG.

- Support to NMCP, CMS, and Drug Change Plan Task Force for development of terms of reference (ToR) for the drug supply and pharmaceutical management sub-committee.

- Support the NMCP and CMS in the development of an operational plan for pharmaceutical management of ACT and other antimalarial medicines and commodities.

3. Work with the NMCP, CMS, other stakeholders and health facilities/DHOs [this includes specific CHAM health facilities which have signed services level agreements for the provision of Malawi essential health package] to ensure an effective quantification, ordering, storage, repackaging, distribution and drug management information system.

Ensuring an uninterrupted supply of ACTs is crucial to the success of Malawi's new malaria treatment policy. In Malawi, the procurement of ACT for public sector will be undertaken by UNICEF whilst the CMS will be responsible for storage, inventory control, repackaging and distribution of ACTs up to the health facility level. The operational capacity of the CMS will be appraised to determine CMS capacity to handle the expected large quantities of ACTs and alternative options will be considered.

Quantification of the first order of ACTs for use in the public sector in Malawi has been done using malaria morbidity data and available data on CMS and health facility attendance for malaria. It is expected that the quantification of subsequent ACT orders will be based on consumption figures after two cycles of *smart-pushing*. In order to collate accurate data on ACT consumption within public health facilities in Malawi, there needs to be a mechanism in place that will ensure feedback is provided to the national level of facility-level use of ACTs. RPM Plus in conjunction with the NMCP will initially review the quantified amounts to include demographic information and other variables before placing procurement order to avoid stock outs or excesses of ACT at the health facilities. In addition RPM Plus will support CMS by providing technical assistance for the development of an effective public sector ACT quantification and tracking system.

The technical assistance to CMS will be jointly coordinated with USAID/Deliver, UNICEF and other stakeholders. This technical assistance will include support for developing a storage and transportation plan that describes how ACTs will reach the health facilities. The general consensus among various stakeholders is that for the CMS to be effective in implementation of the new policy, inventory control management which is currently through the use of weak manual systems will require upgrade and replacement with a more efficient and robust pharmaceutical and supply management information system.

Sub-activities include:

- Participate in the national quantification and forecasting process of subsequent ACT orders to ensure that quantification of required antimalarial medicines and commodities (1^{st}, 2nd line ACTs, 3^{rd} line and other commodities) needs for the ongoing provision of the current malaria treatment policy are updated.

- Develop supply management framework required to effectively receive, store and distribute the procured ACT commodities to the designated health facilities. RPM Plus in collaboration with UNICEF, JSI/Deliver and other partners will support CMS to implement appropriate interventions to improve CMS performance, accountability and ACT security.

- Review the capacity of district hospitals and health centers to capture all requisite information regarding ACT consumption using existing drug inventory and logistic management information system (LMIS) and corresponding tools within the public sector ensuring that pertinent information regarding ACT availability and use will be tracked.

4. Support the development and revision of relevant pharmaceutical and commodities management training materials and provide support in the trainings of pharmaceutical personnel to conform to the national ACT policy.

Appropriate use of antimalarials under Malawi's new malaria treatment policy will depend on proper diagnosis, prescribing, dispensing and provision of use information by health workers, and proper adherence to treatments by patients. To initiate this process, the NMCP in collaboration with RBM partners and other stakeholders will carry out a nationwide training/re-orientation of health workers on the new malaria treatment guidelines. This training must be complemented by the assurance of continued availability at all public health facilities of all commodities mentioned in these guidelines as well as the use of IEC to support appropriate use of ACTs.

In collaboration with NMCP, MSH-Malawi office and other partners, RPM Plus will facilitate the training of pharmacy personnel on drug supply and pharmaceutical management for malaria (PMM). The training will have components on the treatment policy, supporting legal framework, selection, procurement, distribution and use. In addition, training materials will discuss management support issues including how commodities will be accounted for using existing inventory control management and reporting systems.

Sub-activities include:

- Collaborate with NMCP and RBM partners to revise the pharmaceutical management component of malaria treatment guidelines and other guidelines including IMCI guidelines. Specifically, RPM Plus will support the NCMP to incorporate pharmaceutical management concepts in all treatment guidelines for malaria.

- Support the development of a national pool of trained trainers for drug supply and pharmaceutical supply management for malaria and a training plan using a cascade training approach from central level to peripheral health facilities.

- Provision of technical assistance in organizing and delivering training to pharmaceutical personnel at the central level, district hospital and health centers.

- Develop a support supervision plan that strengthen Zone Health Office, DHOs and incorporate MTP approach for performance improvement in district hospitals and health centers.

5. Provide technical support to the Pharmacy Medicine and Poisons Board to strengthen systems for monitoring drug quality and safety of ACTs

The PMPB is responsible for regulation of medicines as well as performing product testing for pharmaceuticals coming through the public sector. During year one, PMI will procure the first-line ACTs for Malawi.

The regulatory authority, PMPB, has responsibility for the post-market surveillance of all medicines to ensure product quality and safety. This includes ensuring quality of products in the private sector. Currently, the PMPB does not undertake post-market surveillance (PMS) nor is there a system to monitor adverse drug reactions (pharmacovigillance) and drug safety. With the limited knowledge and experience in the use of ACTs and some of the other newer medicines, that are being introduced for wide scale use in the country, the establishment of a national pharmacovigillance system will be a key component of ACT policy implementation and an invaluable asset to the country. Also private sector delivery of ACTs and availability of Artemisinin monotherapies need to be addressed as planned by the PMPB in determining the registration status of the monotherapies and other aspects of private sector delivery strategies.

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The National Quality Control Laboratory (NQLC) is currently developing capacity to test ACTs. The lab has two High Performance Liquid Chromatography (HPLC) instruments but lack reference standards for new medicines including Artemisinin based antimalarials. RPM Plus and CDC in collaboration with NMCP will work closely with PMPB to develop comprehensive QA systems in Malawi. The support will include the following:

Sub-activities:

- Carry out a malaria medicine quality survey to establish baseline information of the quality situation of malaria medicines in Malawi.

- Strengthen inspection system at ports of entry and carry out mandatory batch product screening for all antimalarials before release for public consumption. This will include setting up more cost-effective mini-lab testing at selected ports of entry, development of appropriate standard operating procedure (SOP) and training of PMPB and customs staff. [Key message: build up a minimum QA structure through placement of mini lab in strategic location]

- Support to PMPB to institute systems for PMS as part of routine quality assurance of medicines and provide needed support to PMPB and NMCP to undertake drug safety (adverse drug reaction) monitoring of ACTs and other antimalarials (pharmacovigillance)

- Assess NQCL existent capacity (functional status of equipment, human resources etc) to test ACTs and recommend needed interventions. Explore collaboration with USP DQI to strengthen laboratory management including Good Laboratory Practices (GLP) for the NQCL in Malawi.

6. Monitoring and Evaluation of Pharmaceutical Management

The inclusion of a pharmaceutical management component in the recently developed malaria monitoring and evaluation plan is needed to complement the ACT policy implementation plan. This will be a key activity to track progress of the transition to and implementation of the ACT policy in Malawi. It is imperative that this plan include all the requisite pharmaceutical services process, output and outcome indicators for all listed component activities of the ACT policy implementation plan. The identification and facilitation of data sources including routine monitoring information (HMIS), performance based

monitoring activity data (WHO, GFATM, PMI-funded implementing partners), survey data, pharmacovigillance data from the PMPB, ACT tracking data from the CMS and training data.

In conjunction with the NMCP and RBM partners, RPM Plus will support the development of this M&E plan and its subsequent application to enable the generation of information for the program to monitor and evaluate pharmaceutical management aspects of ACT policy implementation. RPM Plus will also provide support to the NMCP for support supervision and monitoring pharmaceutical management at health facilities. Results from these evaluations will allow the NMCP and its RBM partners to better target support to requisite interventions during the early stages of the implementation process.

Sub-activities include:

- Support the selection of appropriate pharmaceutical services and management indicators to measure performance and progress for malaria control and for the management of malaria commodities.

- Support implementation of data sources to ensure the collection of relevant indicator information and the flow of data (routine, ACT tracking, pharmacovigillance etc) to the NMCP to guide the ACT implementation process.

7. Local Office Management and Support.

RPM Plus general administration support required for financial, human resource and general office administration and management will be shared with MSH-Malawi (bilateral). This will allow leveraging of resources and cost-sharing across projects. Contingency plan for local office management beyond MSH-Malawi (bilateral) time as well as transport needs will be constantly evaluated and communicated to the mission accordingly.

RPM Plus Support to Malaria Control in Malawi under the PMI Performance Monitoring Matrix

Activities	Products	Outputs	Outcomes	Primary HPSS IRs*	Secondary HPSS IRs*	BGH IRs*	Mission Results	PAWs*
1. Technical activity coordination and monitoring	N/A	N/A	N/A					
Technical objective 1: Improve the supply and quality of antimalarials and related supplies								
Support to NMCP for the coordination of drug supply and pharmaceutical management subcommittee meetings under/or within ACT implementation task force or Malaria TWG.	Meetings Reports.	Meeting Reports	Coordinated planning and clear roles and responsibility of each stakeholder in ACT policy implementation.	IR3 IR2				
Develop terms of reference (ToR) for the drug supply and pharmaceutical management sub-committee.	ToR for the pharmaceutical management TWG and meetings reports.	Better understanding of pharmaceutical management elements needed for implementation of ACT policy.	Effective implementation of ACT policy.	IR3 IR2				
Development of an operational plan for pharmaceutical management of ACT and other antimalarial medicines and commodities.	Operational Plan	Appropriate operation and programmatic implementation elements needed for ACT policy considered.	Effective implementation of ACT policy.	IR3 IR2				
Participate in the national quantification and forecasting process to ensure that quantification of required antimalarial medicines and commodities (1st, 2nd line ACTs, 3rd line and other commodities) needs for implementation of the current malaria treatment policy are updated.	Procurement Plan/Quantification Report.	Appropriate quantities of ACT and other antimalaria determined and timely procured.	Increased availability of ACT and other antimalarial for effective ACT policy implementation.	IR3 IR2				

* Refer to the M&E Reference Binder for a list of Health Policy and System Strengthening (HPSS) Intermediate Results (IRs), Bureau of Global Health (BGH) IRs, and Principle Areas of Work (PAWs)

Develop supply management framework required to effectively receive, store and distribute the procured ACT commodities to the designated health facilities. RPM Plus in collaboration with UNICEF, JSI/Deliver and other partners will support CMS to implement appropriate interventions to improve CMS performance, accountability and ACT security.	Implementation plan and needed technical support for CMS/RMS.	Appropriate interventions with support to improve CMS/RMS performance and accountability.	Efficient CMS/RMS that responds to procurement and supply management needs for ACT policy implementation.	IR3 IR2				
Review the capacity of district hospitals and health centers to capture all requisite information regarding ACT consumption using existing drug inventory and logistic management information system (LMIS) and corresponding tools within the public sector ensuring that pertinent information regarding ACT availability and use will be tracked.	Monthly/Quarterly Reports.	ACT appropriately stored and distributed to the health facilities	Access to ACT at health facilities	IR3 IR2				
Technical objective 2: Improve the case management and use of appropriate antimalarials								
Collaborate with WHO and NMCP to revise the pharmaceutical management component of malaria treatment guidelines and other guidelines including IMCI guidelines. Specifically, RPM Plus will support the NCMP to incorporate pharmaceutical management concepts in all treatment guidelines for malaria.	Revised training materials.	Appropriate training materials and guidelines available for health care workers training to implement ACT policy.	Effective implementation of ACT policy.	IR3 IR2				

Provision of technical assistance in organizing and delivering training to pharmaceutical personnel at the central level, district hospital and health centers.	Workshops/Training Reports.	60-75% of all health care workers handling ACT in health facilities trained.	Effective implementation of ACT policy.	IR3 IR2				
Develop a support supervision plan that strengthen Zone Health Office, DHOs and incorporate MTP approach for performance improvement in district hospitals and health centers.	Supervision Plan	Formation of MTP teams at facilities that improve staff performances. Improved support supervision.	Effective implementation of ACT policy.	IR3 IR2				
Support the development of a national pool of trained trainers for drug supply and pharmaceutical supply management for malaria and a training plan using a cascade training approach from central level to peripheral health facilities.	National TOT training Report.	Number of national TOT trained and guidelines disseminated.	Effective implementation of ACT policy.	IR3 IR2				
Strengthen inspection system at ports of entry and carry out mandatory batch product screening for all antimalarials before release for public consumption. This will include setting up more cost-effective mini-lab testing at selected ports of entry and development of appropriate standard operating procedure (SOP) and training of PMPB and customs staff. [Key message: build up a minimum QA structure through placement of mini lab in strategic location]	Monthly/Quarterly Reports. Training Reports. QA Reports.	Improved QA systems that ensured quality of products is routinely monitored.	Effective implementation of ACT policy.	IR3 IR2				

Support to PMPB to institute systems for post marketing surveillance (PMS) as part of routine quality assurance of medicines and provide needed support to PMPB and NMCP to undertake drug safety (adverse drug reaction) monitoring of ACTs and other antimalarials (pharmacovigillance)	Post-marketing surveillance reports. Pharmacovigilance reports.	Post-marketing surveillance data available to the PMPB and NMCP for decision making and action. ADR monitoring data available to the PMPB and NMCP for decision making and action.	Effective implementation of ACT policy.	IR3 IR2				
Assess NQCL existent capacity (functional status of equipment, human resources etc) to test ACTs and recommend needed interventions. Explore collaboration with USP DQI to strengthen laboratory management including Good Laboratory Practices (GLP) for the NQCL in Malawi. .	Assessment Reports.			IR3 IR2				
Carry out a malaria medicine quality survey to establish baseline information of the quality situation of malaria medicines in Malawi.	Survey Report.		Effective implementation of ACT policy.	IR3 IR2				
Support to the selection of appropriate pharmaceutical services and management indicators to measure performance and progress for malaria control and for the management of malaria commodities.				IR3 IR2				

RPM Plus Support to Malaria Control in Malawi under the US PMI
Program Activity Matrix.

Act. #	Activity	Partners and Collaborators	Staff	Travel (Per Diem Days)	Significant Expenses	Total Cost
1	Technical activity coordination and monitoring		D. Keene M. Diara M. Gabra M. Miralles T. Rudi STA-TBD			
2	Provide technical assistance to NMCP to develop operational plan for drug supply and commodities management of antimalarials (ACTs and others) within the context of new malaria treatment policy.	NMCP, CMS, PMPB CDC,WHO, UNICEF MSH, CHAM JSI/Deliver	G. Tetteh O. Hazemba C. Kamtengeni STA-TBD			
3.	Work with the NMCP, CMS, other stakeholders and health facilities/DHOs [this includes specific CHAM health facilities which have signed services level agreements for the provision of Malawi essential health package] to ensure an effective quantification, ordering, storage, repackaging, distribution and drug management information system.	NMCP, CMS, CDC,WHO, UNICEF,MSH, CHAM JSI/Deliver	O. Hazemba C. Kamtengeni G. Tetteh STA-TBD			
4.	Support the development and revision of relevant pharmaceutical and commodities management training materials and provide support in the trainings of pharmaceutical personnel to conform to the national ACT policy.	NMCP, WHO, MSH, CHAM	G. Tetteh O. Hazemba E. Rutta C. Kamtengeni STA-TBD			
5.	Provide technical support to the Pharmacy Medicine and Poisons Board to strengthen systems for monitoring drug quality and safety of ACTs	NMCP PMPB WHO, CDC	D. Tran E. Rutta C. Kamtengeni STA-TBD			
6.	Monitoring and Evaluation of pharmaceutical management system	NMCP MSH CDC	G.Tetteh E. Rutta C. Kamtengeni			
7.	Local Office Management					
Grand Total Cost						

Annex: Time line for RPM Plus Implementation in Support of PMI Malawi

	2007												2008	
	Jan	**Feb**	**March**	**April**	**May**	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**
Technical Coordination														
Recruitment of new RPM Plus/Malawi staff	X	X												
Finalize work plan and discussion with USAID/Malawi	X	X												
Provide technical assistance to NMCP to develop operational plan for drug supply and commodities management of antimalarials (ACTs and others) within the context of new malaria treatment policy.														
Support to NMCP for the coordination of drug supply and pharmaceutical management subcommittee meetings under/or within ACT implementation task force or Malaria TWG.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Develop terms of reference (ToR) for the drug supply and pharmaceutical management sub-committee.		X												
Development of an operational plan for pharmaceutical management of ACT and other antimalarial medicines and commodities.			X	X	X	X								
Work with the NMCP, CMS, other stakeholders and health facilities/DHOs [this includes specific CHAM health facilities which have signed services level agreements for the provision of Malawi essential health package] to ensure an effective quantification, ordering, storage, repackaging, distribution and drug management information system.														
Participate in the national quantification and forecasting process to ensure that quantification of required antimalarial medicines and commodities (1st, 2nd line ACTs, 3rd line and other commodities) needs for implementation of the current malaria treatment policy are updated.		X	X											
Develop supply management framework required to effectively receive, store and distribute the procured ACT commodities to the designated health facilities. RPM Plus in collaboration with UNICEF, JSI/Deliver and other partners will support CMS to implement appropriate interventions to improve CMS performance, accountability and ACT security.			X	X	X	X	X							
Review the capacity of district hospitals and health centers to capture all requisite information regarding ACT consumption using existing drug inventory and logistic management information system (LMIS) and corresponding tools within the public sector ensuring that pertinent information regarding ACT availability and use will be tracked.				X	X	X							X	X
Support the development and revision of relevant pharmaceutical and commodities management training materials and provide support in the														

	2007												2008	
	Jan	**Feb**	**March**	**April**	**May**	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**
trainings of pharmaceutical personnel to conform to the national ACT policy.														
Collaborate with WHO and NMCP to revise the pharmaceutical management component of malaria treatment guidelines and other guidelines including IMCI guidelines. Specifically, RPM Plus will support the NCMP to incorporate pharmaceutical management concepts in all treatment guidelines for malaria.								X	X	X	X	X	X	X
Support the development of a national pool of trained trainers for drug supply and pharmaceutical supply management for malaria and a training plan using a cascade training approach from central level to peripheral health facilities.								X	X	X	X	X	X	
Provision of technical assistance in organizing and delivering training to pharmaceutical personnel at the central level, district hospital and health centers.								X	X	X	X			
Develop a support supervision plan that strengthen Zone Health Office, DHOs and incorporate MTP approach for performance improvement in district hospitals and health centers.										X	X	X	X	X
Provide technical support to the Pharmacy Medicine and Poisons Board to strengthen systems for monitoring of drug quality and safety of ACTs.														
Strengthen inspection system at ports of entry and carry out mandatory batch product screening for all antimalarials before release for public consumption. This will include setting up more cost-effective mini-lab testing at selected ports of entry and development of appropriate standard operating procedure (SOP) and training of PMPB and customs staff. [Key message: build up a minimum QA structure through placement of mini lab in strategic location]					X	X	X	X	X	X	X	X	X	X
Support to PMPB to institute systems for post marketing surveillance (PMS) as part of routine quality assurance of medicines and provide needed support to PMPB and NMCP to undertake drug safety (adverse drug reaction) monitoring of ACTs and other antimalarials (pharmacovigillance)									X	X	X	X	X	X
Assess NQCL existent capacity (functional status of equipment, human resources etc) to test ACTs and recommend needed interventions. Explore collaboration with USP DQI to strengthen laboratory management including Good Laboratory Practices (GLP) for the NQCL in Malawi.					X	X								
Carry out a malaria medicine quality survey to establish baseline information of the quality situation of malaria medicines in Malawi.					X	X								
Monitoring and Evaluation														
Local office management and support														