

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

Supporting the Uganda Ministry of Health to
Improve Pharmaceutical Management for
Malaria Interventions in Uganda

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

FY 07 Work plan

Acronyms

ACT	Artemisinin based Combination Therapy
ADR	Adverse Drug Reactions
BCC/IEC	Behavioral Change and Communication/ Information Education and Communication
CMD	Community Medicines Distributors
CQ/SP	Chloroquine+Sulphadoxine/Pyrimethamine
GFATM	Global Fund for AIDS Tuberculosis and Malaria
HBMF	Home Based Management of Fever
HIV/AIDS	Human Immune Virus/Acquired Immunodeficiency Syndrome
IPT	Intermittent Presumptive Treatment
IDSR	Integrated Disease Surveillance and Response
IRS	Indoor Residual Spraying
ITN	Insecticide Treated Nets
JMS	Joint Medical Store
MIAS	Malaria Information Acquisition System
MOH	Ministry of Health of Uganda
MOU	Memorandum of Understanding
MSH/RPM Plus	Management Sciences for Health/ Rational Pharmaceutical Management Plus Program
NMCP	National Malaria Control Program of Uganda
NMS	National Medical Stores
OLTP	Online Transaction Processing
PMI	President's Malaria Initiative
PLWHA	People Living With HIV/AIDS
RDT	Rapid Diagnostic Tests
REDSO	Regional Economic Development Service Organization
RBM	Roll Back Malaria
SOW	Scope of Work
TBD	To be Determined
USAID	United States Agency for International Development
WHO	World Health Organization
USG	United States Government

Background

Uganda is one of the high burden malaria countries in sub-Saharan Africa that was selected by the United States Government (USG) in May 2005 to benefit from the President's Malaria Initiative (PMI). The overall five-year \$1.2 billion initiative intends to rapidly scale up malaria prevention and treatment interventions with the goal of reducing malaria-related mortality by 50% through the achievement of 85% coverage of at-risk groups with four key interventions: artemisinin based combination therapy (ACT), intermittent preventive treatment (IPT) for malaria in pregnancy, insecticide-treated mosquito nets (ITNs), and indoor residual spraying with insecticides (IRS).

In Uganda, malaria is a leading cause of morbidity and mortality and accounts for 40% of outpatient visits, 25% of hospital admissions and 14% of hospital deaths. The burden of the disease is greatest amongst children under 5 years of age and pregnant women¹. People living with HIV/AIDS (PLWA) have also increasingly become an added vulnerable group. A national Roll Back Malaria (RBM) strategic plan (2001/2-2004/5)² currently guides malaria control activities in Uganda and supports the use of (i) prompt and effective treatments, including home-based management; (ii) vector control, including insecticide-treated bed nets (ITNs) and indoor residual spraying (IRS); (iii) intermittent preventive treatment (IPT) during pregnancy; and (iv) epidemic preparedness.

Whilst there has been some progress in treatment and prevention efforts led by the Ministry of Health National Malaria Control Program (NMCP), it is envisaged that the implementation of the PMI Five-Year Strategy and Plan will serve to address the major unmet needs in achieving the Abuja targets. In implementing the PMI, USAID/Uganda mission is therefore committed to working with the Ministry of Health Uganda and within national existing malaria control plans. Priorities presented at the Eastern Africa RBM annual review and planning meeting, November 2005 for the national malaria control program for 2005/2006 are depicted below:

Program Area	Activity
Case Management	<ul style="list-style-type: none"> Strengthen laboratory services (microscopy and rapid diagnostic tests (RDTs)) Strengthen medicine and supplies management including Artemisinin-based Combination Therapies (ACTs) Pilot use of ACTs for home based management of fever (HBMF)
Vector Control	<ul style="list-style-type: none"> Capacity building for indoor residual spraying (IRS) Scale up insecticide treated net distribution
BCC/IEC	<ul style="list-style-type: none"> Strengthen BCC/IEC for malaria control
M&E, Surveillance and Research	<ul style="list-style-type: none"> Establish a pharmacovigilance system (emphasis on ACTs) Documentation of best practices in malaria control Strengthen community-based information system Strengthen quantification and monitoring of malaria control inputs and outputs

¹ The Africa Malaria Report 2005

² Process of development of the next generation strategic plan has already began

The RPM Plus program strategy proposed in support of the PMI implementation and the National Malaria Control and Prevention in Uganda is based on a pharmaceutical management system strengthening approach in the country in support of the implementation of the national malaria plan and its roll out into the country.

RPM Plus has been providing assistance to support and strengthen the distribution of Coartem procured with GFATM and PMI funds to the public sector as well as the pharmaceutical management aspects of the nationwide artemisinin-based combination therapy (ACT) roll-out led by the national malaria control program (NMCP). This support to NMCP has been provided through the Uganda National Medical Stores (NMS) and Joint Medical Store (JMS) and benefited malaria case management and prevention at the community and health facility levels. Whilst providing this technical assistance to the roll-out process, RPM Plus support contributed to ensure constant availability of ACTs at health facilities nationwide and to selected communities in the conflict districts of Gulu, Kitgum, Pader and Amuru for the home based management of fever. Providing this support has met challenges, the most pertinent being the recent management problems faced by NMS that has left a gap in the operational departments of NMS.

Under this work plan, RPM Plus proposes to use FY07 funds to scale up this assistance and support to include activities that will enhance monitoring of ACT usage, rational drug use, phased introduction of community ACTs and improvement in NMS supply system efficiency. This will help ensure constant availability, rational use and improved access by vulnerable communities.

General Program Objectives

The objectives of the proposed scope of work are:

1. To strengthen the existing malaria medicines pharmaceutical management system to ensure the constant availability of malaria medicines at health facilities and supporting the National Medical Stores' handling and distribution of PMI-procured treatment doses of Artemisinin based combination therapy (ACT).
2. To provide technical support to the National Malaria control Program (NMCP) of the Ministry of Health, Uganda to scale up its malaria control activities, with an emphasis on malaria treatment activities, particularly the roll-out and rational use of ACTs.

Planned Activities

1. Technical activity coordination and monitoring

This activity includes technical activity coordination, work plan development, budget monitoring, local office costs, progress monitoring, reporting, meetings, and communication with partners and collaborators. The expected cost of this activity is USD 117,313.

2. Provide financial and technical support to National Medical Stores (NMS) for storage and distribution of ACTs procured under the PMI

Uganda is starting its second year of ACT policy implementation with the coming year putting special emphasis on community ACT distribution. RPM Plus supported the distribution of GFATM Coartem as an emergency measure to stabilize the availability of Coartem in the health facilities in addition to payment of handling fees for the distribution of the PMI funded Coartem to the four conflict districts of Gulu, Kitgum, Pader and Amuru. RPM Plus, NMCP and NMS management agree that irregular ordering by health facilities, unreliable order quantities, lack of consumption data, poor coordination of order processing and inadequate information are the major obstacles to access and availability of ACTs at health facilities. RPM Plus has hired an additional full time pharmacist (senior program associate) to work with NMS and NMCP to address these constraints and improve the availability of ACTs at facility level. RPM Plus will continue to pay handling fees on behalf of USAID, for the ACTs funded by PMI in the coming year, using funds advanced by USAID³. In addition RPM Plus will continue to support the NMS in ensuring regular ordering of ACTs, to ensure their availability⁴ at the district level. Review of the problems facing the regularity of ordering has revealed that districts are not conversant with the NMS system of ordering and some do not have trained personnel to coordinate the soliciting and rationalization of orders to meet the facility needs. RPM Plus through the support to NMS and in collaboration with DELIVER and SCMS will carry out training for all district logistics officer to bring them to a level where they can effectively make timely orders. NMS will support the district logisticians through periodical support supervision visits for continuous improvement. The total support to the NMS is expected to be USD 38,520.

3. Support the coordination of a National Malaria Commodities and Medicines Supply Chain Committee

RPM Plus will continue to provide technical assistance and serve as the secretariat to the NMCP's supply chain committee. The supply chain committee has developed a work plan that includes overseeing and coordinating forecasting and distribution of malaria medicines and ensuring their availability and appropriate use. This committee's work will be augmented by RPM Plus's Senior Program Associate who will spend substantial amounts of time with NMS to stream line the order acquisition and processing of malaria medicines orders from the health facilities. The committee will occasionally carry out field visits to facilities to ascertain the impact of its interventions but also to carry out support supervision for systems improvement at health facilities. The total cost for this activity is approximately USD 30,048.

4. Support NMS in restructuring its report generation system to enhance the efficiency of order processing and forecasting of malaria medicines

³ This refers to coartem procured under PMI. It is expected that the funds for payment of handling fees will be additional to the budget being proposed in this work plan. The amount of coartem to be procured under PMI is also yet to be determined.

⁴ This will cater for all Coartem including GF procured

NMS is the organization charged with the responsibility of storage and distribution of essential medicines to the public sector. NMS has an Enterprise Resource Planning software called Navision that is used for online transaction processing (OLTP) for the warehouse, sales, inventory accounts and procurement functions.

This system was installed in 1995 and has now undergone 4 major upgrades. Almost all these upgrades have been done in an attempt to make the system more efficient but also to add better functionalities so as to keep abreast with the current business practices. On each of these upgrades some of the data and information is left in the previous version, either to avoid over congesting the new system or to avoid transferring errors of the old system to the new system. As a result, NMS currently has about 6 databases to refer to if they are to make an informed decision on a customer, supplier or an item. In addition, there is no separate reporting repository. Given the growing number of transactions, the current system is overburdened by the OLTP and queries for reporting so that when some sections of the organization are operating others have to keep off the system to avoid overburdening it. This scenario has resulted in constraints in drug distribution and forecasting because of slow order processing and report generation.

In order to strengthen the pharmaceutical management system, RPM Plus and NMS identified data management and reporting as one of the areas needing support, if availability of ACTs is to improve at facility level. RPM Plus proposes to support NMS in implementing a database that will form a repository for all data currently stored in the various databases of the organization. This will improve management decision making and reduce reporting requirements from the system used for day to day transactions and make it more efficient. This will improve efficiency of order processing and also link the other databases into one data warehouse.⁵ This will make the process of decision making on a customer order faster, further improving order processing efficiency. The result will be more accurate forecasting of needs and improvement of availability of essential medicines at health facility level. This intervention will not only benefit Malaria medicine supply chain but also all essential medicines handled by NMS. RPM Plus is collaborating with the SCMS project for joint activities, in which SCMS will pick up some of the costs for systems improvement that will benefit the supply chain for HIV/AIDS related supplies. These will include joint systems analysis, monitoring and evaluation of performance and support supervision to beneficially units to assess impact. The expected cost for this activity is USD 80,085

5. Work with NMCP and Pharmacy Department to establish a Malaria Commodities Information Acquisition System

The National Malaria Control Program (NMCP) of the Ministry of Health is responsible for monitoring the success of the National Malaria Strategy 2001-2010. Monitoring includes

⁵ A data warehouse is a collection of data designed to support management decision making. Data warehouses contain a wide variety of data that present a coherent picture of business conditions at a single point in time. Development of a data warehouse includes development of systems to extract data from a combination of many different databases in one database system that provides managers flexible access to the data. In NMS' case; smaller data warehouses called data marts that focus on a particular subject like sales and procurement will be developed first.

ensuring that the resources invested in malarial prevention and treatment are used in the most cost-efficient, effective and equitable way.

RPM Plus together with the NMCP and Pharmacy Department of the MOH have identified the need to set up a Malaria Information Acquisition System (MIAS) that will be used as a vehicle to provide accurate, reliable and timely information on use and availability of malaria medicines that can inform interventions at the district, national, regional and global levels⁶.

This system will be an adaptation of a similar one implemented by RPM Plus in Kenya except that this one will be on a smaller scale to capture information related to malaria medicines availability and use.

The system will be computer-based and will be housed and operated at the NMCP existing local area network. The system will be programmed by an external firm through a tender process and will be used by key staff of NMCP. Information on malaria medicine utilization will flow from lower level facilities to the districts for aggregation and then forwarded on to the NMCP monthly. This system will be implemented in conjunction with the Health Management Information System (HMIS) to ensure that there is no duplication of information collection. The system will be pre-tested in two or more districts (the number and location of the districts will be decided by NMCP), and then scaled up to other districts depending on national data needs.

District health record officers and pharmaceutical personnel will be trained in the collection, processing and use of the data to manage the medicines (ACTs) and prevent stock-outs. This system is expected to cost USD 67,549.

6. Work with NMCP, NMS and NDA to implement the phasing out of CQ/SP as first line for malaria case management and other mono-therapies.

RPM Plus and NDA held a two day stakeholders meeting in October 2006 where an action plan to phase out chloroquine and other mono-therapies was developed. In year two, RPM Plus will support NDA in implementation of the action plan.

This will involve taking stock of the current available monotherapies in circulation in the country and setting targets for implementation of the phase out plan. The phase out plan will involve:

1. Stakeholders Dissemination workshop

USAID through RPM Plus supported a meeting of experts convened by NDA in October 2006. The workshop made recommendations regarding mono-therapies to be phased out and proposed a road map for the introduction of ACTs at the community level. A stakeholders meeting is planned in 2007 to disseminate the recommendations and get inputs from stakeholders before implementation of the plan.

⁶ Krystall, Paul. 2006. *RPM Plus Technical Assistance to the Kenya Division of Malaria Control for Establishment of a Malaria Information Acquisition System: MIAS Assessment and Recommendations Report*.

2. *Survey to determine the quantities of anti-malaria medicines at government and private sector facilities and raw materials in manufacturing plants.*

This activity aims at establishing the current stock levels of anti-malaria drugs that are recommended for phase out. This will inform the decision making process including import restrictions on these medicines.

3. *Establishment of availability of ACTs in public and private sector health facilities country wide.*

This activity will be carried out simultaneously with activity two above, in order to minimize costs. Availability of sufficient stocks of ACTs to treat malaria in the communities will be established before a ban can be imposed on importation of chloroquine and other mono-therapies

4. *Monitoring the importation and availability of ACTs.*

RPM Plus will support NDA to develop a system to monitor importation of ACTs and also generate data on availability of ACTs from NDA regional offices. The information so gathered will be shared with NMS and JMS as they carry out quantification and procurement of anti-malarials so that national stock outs of the medicines can be avoided.

5. *Publication of Malaria drug indicator Prices:*

To sensitize the public and ensure access to reasonably priced ACTs, RPM Plus will work with the NDA to periodically publish prices of ACTs in the local press. This will help guide the public on the prices they can expect from the private sector dealers. This is expected to keep the prices low due to public awareness, and augment interventions to avail ACTs in the public sector.

The activity is expected to cost USD 81,415.

7. Support the improvement of access to ACTs in rural health communities using private sector distribution outlets (drug shops).

In Uganda, access to public health facilities is estimated to be at 40%, with the rest of the population seeking health services either in the private-not-for-profit (NGOs, CBOs, FBOs) or the private-for-profit sector. The distribution of pharmacies in Uganda is limited to urban areas. Class C drug shops are however more widely distributed. About 3,500 of these shops are licensed countrywide and there is an unspecified number of unlicensed drug sellers. In addition to the drug shops, there are private clinics that are more widely distributed in the rural communities. The main challenge with access to drugs through the private drug shops and clinics (licensed or unlicensed) is that most of the staff are either unqualified or inadequately trained and in addition sell drugs at high prices. The drugs are also of doubtful quality. Enforcement of quality control by the NDA is not very effective because of the limited capacity at the National Drug Authority (NDA).

Currently implementation of HBMF is through the voluntary efforts of the Community Medicine Distributors (CMD). However, there is a high attrition rate among CMDs due to limited supervision and voluntarism fatigue. The success of the HBMF is dependant on the level of involvement of the rural communities, given the constraints of human resources in the formal

health sector. With such a gap in the delivery of services, and the need to meet the PMI goal of enabling 85% of children under five years and pregnant women to access treatment within 24 hours of developing symptoms by 2010, it might be prudent to pilot a hybrid of service provision through CMDs and the private sector to improve access.

RPM Plus is proposing to improve access to anti-malarial medicines including ACTs and monitor the services provided by the private sector drug outlets through strengthening government accreditation and regulation. The approach is based on MSH's Strategies for Enhancing Access to Medicines (SEAM) Project that has been implemented in Tanzania, Kenya and Ghana. The SEAM project aimed at improving access to essential medicines through ensuring availability, affordability, geographic accessibility and acceptability for the people who needed them. RPM Plus is working with NDA to deregulate ACTs for use in the private sector as over the counter (OTC) medicines. Once attained, the deregulation policy will facilitate the availability of ACTs to the private sector. RPM Plus has discussed with the NMCP the need to enhance the availability of ACTs at community level and agreed to implement, in a phased manner, a private sector distribution in three selected districts. Discussions with the Integrated Disease Surveillance and Response (IDSR) program of the MOH recommended selection of the districts according to the following criteria: transmission rates of malaria (medium to high), districts mapped epidemiologically, and low intervention coverage districts (CMDs impact low). This will ensure that the community based drug shops and clinics will be used adequately. The drug shops and clinics⁷ will be accredited after training of the service providers, improving storage and inventory management and enhancing regulation and supervision by the NDA. This activity will be implemented in collaboration with the USAID funded AFFORD project, Uganda Health Marketing Group (UHMG), Joint Medical Stores (JMS) and IDSR. JMS will supply the ACTs to pharmacies that will be set up in the district as franchises to JMS, supported by AFFORD and UHMG. NDA will provide regulatory support through over seeing the implementation of the deregulation policy and IDSR will monitor the system development and incorporation of indicators of the supply system into the HMIS, in addition to monitoring health impact. RPM Plus will train the service providers and prepare the outlets for accreditation.. This activity is expected to cost USD 85,068.

8. Targeted assessment of the pharmaceutical management system for malaria medicines in Uganda to guide interventions.

Effective case management for malaria requires that effective antimalarials are available and used appropriately in the correct formulations and amounts and according to an appropriate regimen (dose, frequency, duration). Ineffective treatment can lead to recrudescence infections, thus requiring additional treatment, which can lead to increased cost and loss of productivity, complications or death, and the development of resistance to the limited antimalarial medicines. In addition, lack of careful selection, incorrect quantification, high prices, poor quality, pilferage, improper storage, expiration of medicines, irrational prescribing, and incorrect use of medicines by providers and patients can result in losses totaling more than 70 percent of initial acquisition costs of medicines in general.

⁷ In most rural areas, clinics are more widespread than drug shops. It is proposed to use these clinics where drug shops are not available

To address these pharmaceutical management issues related to the essential medicines needed for treating and preventing malaria, RPM Plus in collaboration with ORC Macro's Health facility survey funded by the U.S. Agency for International Development (USAID) will carry out a targeted indicator-based assessment to review the availability and patterns of use of medicines for malaria treatment in public health facilities of the Ministry of Health (MOH). RPM Plus has developed tools together with ORC Macro to carry out assessments with special focus on malarial medicines. The survey will identify existing or emergent problems of malaria medicines and provide the evidence required for making decisions on how to improve access to, as well as the use of, antimalarial medicines in the public sectors

Timelines

The timeline for all activities within this work plan is from October 2006 – September 2007. Subsequent RPM Plus activities will be determined contingent upon continuity of the project (See Appendix 1 for Gantt chart).

Reporting

RPM Plus will provide quarterly reports and annual reports to the USAID/Uganda mission as well as other information requested for by the Mission. Periodic coordination meetings will be proposed to the different PMI implementers and USAID staff to increase synergies among partners and maximize PMI results in Uganda.

Budget

Description	Amount	Percentage
US Salaries / Wages / OH / Fringe	\$97,109	19%
Local Professional Salaries / OH	\$81,489	16%
Local Staff Salaries	\$22,159	4%
Travel & Transportation	\$25,399	5%
Ins/Conf/Other	\$6,697	1%
Communications	\$17,197	3%
Rent & Utilites	\$33,197	7%
Consultants / OH	\$17,272	3%
Photocopying	\$4,097	1%
Outside Services	\$49,497	10%
Training	\$65,697	13%
Supplies and Materials	\$4,697	1%
Equipment	\$75,497	15%
Total	\$499,998.00	100%

Performance Monitoring Matrix

PMI /RPM Plus FY 2006/2007 Work plan Performance Monitoring Matrix

Intermediate Result						
Activities	Products	Outputs	Output indicator	Outcomes	Outcome indicator ⁸	Budget (USD)
1. Technical activity coordination and monitoring			N/A	N/A	N/A	117,313
2. Provide financial and technical support to National Medical Stores (NMS) for storage and distribution of ACTs procured under the PMI	1. MOU with NMS for handling fees payment 2. receipts of payment of handling fees N/A SOW for technical support 4. ACTs distribution reports and records	1. ACTs stored and distributed by NMS according to agreed standards and targets 2. Technical support for the coordination of monitoring and distribution of ACTs available	<ul style="list-style-type: none"> 80% percent of PMI procured Coartem distributed to targeted Health sub-districts according to schedule 	Improved availability of ACTs to Health facilities	80% of sampled facilities in selected districts not reporting stock outs in the last 3 months.	38,520
3. Support the coordination of a National Malaria Commodities and Medicines Supply Chain Committee	1. Coordination meeting reports 2. reviewed forecasting and quantification plan 3. Reviewed distribution plan	1. Anti-malaria medicine needs for Uganda Quantified for procurement 2. Annual Distribution plans available and updated	<ul style="list-style-type: none"> Monthly meetings held Quantification carried out and data available Reviewed annual distribution plans available for use by NMS 	Improved availability and use of malaria medicines	80% of sampled facilities in selected districts not reporting stock outs in the last 3 months.	30,048

⁸ The outcome indicators will be measured after two to three years of project implementation

Intermediate Result						
Activities	Products	Outputs	Output indicator	Outcomes	Outcome indicator ⁸	Budget (USD)
4. Support NMS in restructuring its report generation system to enhance the efficiency of order processing and forecasting of malaria medicines	<ol style="list-style-type: none"> 1. aggregation software for sales and procurement data from different databases 2. Software for reliable report generation. 3. Forecasting, customer accounts and item availability reports 	<ol style="list-style-type: none"> 1. Timely and accurate forecasting data for anti-malarial medicines available 2. Efficient order processing 	<p>Data available for use in quantification and forecasting time</p> <p>80% Orders processed in time</p>	Improved availability of malaria medicines at health facilities	80% of sampled facilities in selected districts not reporting stock outs in the last 3 months	80,085
5. Work with NMCP and Pharmacy department to establish a Malaria medicines Information Acquisition System	<ol style="list-style-type: none"> 1. Software and hardware for reporting system 2. Reports on status of availability and use of anti-malaria medicines 	Functional reporting system for availability and use of anti-malaria medicines in Uganda	Quarterly reports on availability and use of malaria medicines generated	Improved availability of malaria medicines at health facility level	80% of sampled facilities in selected districts not reporting stock outs in the last 3 months	62,549

Intermediate Result						
Activities	Products	Outputs	Output indicator	Outcomes	Outcome indicator ⁸	Budget (USD)
6. Work with NMCP, NMS and NDA to implement the phasing out Chloroquine as first line for malaria case management and other mono-therapies	<ul style="list-style-type: none"> Report on stock position of mono therapies in the country Document indicating phase out targets 	Guidelines for phasing out of Chloroquine and other mono-therapies established and implemented	80% of sampled health facilities in selected districts using established guidelines to phase out Chloroquine and other mono-therapies	Chloroquine and other mono-therapies phased out in the majority of public health facilities	60% of public health facilities have phased out Chloroquine and other mono-therapies as first line	81,415
7. Support the Improvement of access of ACTs in rural health communities using private sector distribution through drug shops ⁹ .	<ul style="list-style-type: none"> Concept paper for using drug shops as ACT outlets in Uganda Strategic plan Developed training material. Report on training service providers Accreditation and supervision and selection criteria checklist 	<ul style="list-style-type: none"> Concept paper and strategic plan Initial list of drug shops for training Training materials available for training Trained service providers 	<ul style="list-style-type: none"> 50% of selected drug shop service providers trained 80% of trained service providers operating. 	Improved availability of ACTs in the in the communities in the intervention districts	80% of sampled drug shops in selected districts not reporting stock outs in the last 3 months	85,068

⁹ Exploring collaboration with AFFORD, UHMG and NDA

Intermediate Result						
Activities	Products	Outputs	Output indicator	Outcomes	Outcome indicator ⁸	Budget (USD)
8. Targeted assessment of the pharmaceutical management system for malaria medicines in Uganda to guide interventions. •	Assessment report on the status of pharmaceutical management system of malaria medicines	Options analysis for addressing constraints available to program managers and other partners	Plan to address constraints in pharmaceutical management of malaria medicines developed and implementation initiated	Improved availability and use of malaria medicines in Uganda	<ul style="list-style-type: none"> • 50% percent of sampled facilities in selected prescribing ACTs correctly • 80% of sampled facilities in selected districts not reporting stock outs in the last 3 months 	5,000
Total cost						499,998

Program Activity Matrix

Activities	Partners and Collaborators	Staff	Travel per diem	Significant expenses	Total Cost
1. Technical activity coordination and monitoring	N/A	Saul Kidde, Sunday,, E. B. Ndyabangi			117,313
2. Provide financial and technical support to National Medical Stores (NMS) for storage and distribution of ACTs procured under the PMI		Loi Gwoyita Saul Kidde			38,520
3. Support the coordination of a National Malaria Commodities and Medicines Supply Chain Committee	NMCP	Saul Kidde Loi Gwoyita			30,048
4. Support NMS in restructuring its report generation system to enhance the efficiency of order processing and forecasting of malaria medicines	DELIVER ¹⁰ SCMS	Loi Gwoyita Saul Kidde TBD			80,085
5. Work with NMCP and Pharmacy department to establish a Malaria medicines and ITN Information Acquisition System	NMCP	Loi Gwoyita Saul Kidde Gladys Tetteh			62,549
6. Work with NMCP, NMS and NDA to implement the phasing out Chloroquine as first line for malaria case management and other mono-therapies	NMCP NDA	Saul Kidde Loi Gwoyita			81,415
7. Support the Improvement of access of ACTs in rural health communities using private sector distribution through drug shops	AFFORD, UHMG, NDA, NMCP ¹¹	Saul Kidde Loi Gwoyita TBD			85,068
8. Targeted assessment of the pharmaceutical management system for malaria medicines in	ORC Macro, MCP	Loi Gwoyita Saul Kidde			5,000

¹⁰ The TA that RPM Plus is providing to NMS will not only be for malaria activities but as much as possible for all Malaria and other health related activities funded by USAID including those from other CAs in order to have a holistic approach of support by USAID to government agencies and foster collaboration among local CAs

¹¹ The TA that RPM Plus is providing to NDA will not only be for malaria activities but as much as possible for all Malaria and other health related activities funded by USAID including those from other CAs in order to have a holistic approach of support by USAID to government agencies and foster collaboration among local CAs.

Activities	Partners and Collaborators	Staff	Travel per diem	Significant expenses	Total Cost
Uganda to guide interventions.		TBD			
Total cost					499,998