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

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

Work plan

Final Draft Document
**Acronyms**

ACT | Artmesinin based Combination Therapy
ADR | Adverse Drug Reactions
BCC/IEC | Behavioral Change and Communication/ Information Education and Communication
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
IRS | Indoor Residual Spraying
ITN | Insecticide Treated Nets
JMS | Joint Medical Store
MOH | Ministry of Health of Uganda
MSH/RPM Plus | Management Sciences for Health/ Rational Pharmaceutical Management Plus Program
NMCP | National Malaria Control Program of Uganda
NMS | National Medical Stores
PMI | President Bush’s Malaria Initiative
PLWHA | People Living With HIV/AIDS
RDT | Rapid Diagnostic Tests
REDSO | Regional Economic Development Service Organization
RPM | Roll Back Malaria
SOW | Scope of Works
TBD | To be Determined
USAID | United States Agency for International Development
WHO | World Health Organization
USG | United States Government
Introduction

The Uganda MOH, through its Global Fund grant for Round 2 is procuring approximately 1.8 million mosquito nets that are soon to arrive in country. In addition, 15.5 million doses of Artemether-Lumefantrine have been ordered using GFATM Round 4 resources. With the U.S. President’s Malaria Initiative support to the MOH, 300,000 additional nets will be procured during this year through the WHO mechanism with 261,200 Artemether-Lumefantrine doses for Northern Uganda.

RPM Plus Assistance is solicited to support and strengthen the distribution of nets procured with GFATM funds to children under five years old, pregnant women, and other vulnerable populations such as people living with HIV/AIDS. The support is also needed for the handling and distribution costs of 261,200 PMI-procured treatment doses of artemether-lumefantrine 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 will be provided through the Uganda National Medical Stores and Joint Medical Stores and will benefit 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 will contribute to ensure the rational use of the selected expensive national first-line treatments.

Following is the work plan to address the immediate challenge presented by the imminent arrival of the bed nets and ACT medicines, while at the same time, laying the groundwork for a longer-term, coordinated approach for the management of medicines and health commodities for malaria.

Background information

Uganda is one of the high burden malaria countries in sub-Saharan Africa that has been selected by the United States Government (USG) to benefit from the recently launched President 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 women. 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)

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1 The Africa Malaria Report 2005
2 Process of development of the next generation strategic plan has already began
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:

<table>
<thead>
<tr>
<th>Program Area</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Management</td>
<td>• Strengthen laboratory services (microscopy and rapid diagnostic tests (RTDs))</td>
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<tr>
<td></td>
<td>• Strengthen medicine and supplies management including Artemisinin-based Combination Therapies (ACTs)</td>
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<td></td>
<td>• Pilot use of ACTs for home based management of fever (HBMF)</td>
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<tr>
<td>Vector Control</td>
<td>• Capacity building for indoor residual spraying (IRS)</td>
</tr>
<tr>
<td></td>
<td>• Scale up insecticide treated net distribution</td>
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<tr>
<td>BCC/IEC</td>
<td>• Strengthen BCC/IEC for malaria control</td>
</tr>
<tr>
<td>M&amp;E, Surveillance and Research</td>
<td>• Establish a pharmacovigilance system (emphasis on ACTs)</td>
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<tr>
<td></td>
<td>• Documentation of best practices in malaria control</td>
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<tr>
<td></td>
<td>• Strengthen community-based information system</td>
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<td></td>
<td>• Strengthen quantification and monitoring of malaria control inputs and outputs</td>
</tr>
</tbody>
</table>

RPM Plus participated in the initial PMI assessment in Uganda, Tanzania and Angola and has already provided support to Uganda through its regional activities funded by the Malaria Action Coalition/REDSO. Representatives from the National Malaria Control Program and the National Medical Stores in Uganda participated in RPM Plus regional workshops on strengthening malaria pharmaceutical management capacities and improving quantification skills.

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.

**General Program Objectives**
The objectives of the proposed scope of work are to:

1) To strengthen the existing pharmaceutical management system for the integration of 15.5 million treatment doses of Artemether-Lumefantrine into the drug distribution system and for the phasing out of old malaria therapies while supporting the National Medical Stores costs of handling and distribution of 261,200 PMI-procured treatment doses of Coartem.

2) To provide technical support to 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, progress monitoring, reporting, meetings, and communication with partners and collaborators.

2. Office Management
   This activity includes rent of office space, utilities and equipment and the office manager’s salary

3. Provide financial and technical support to National Medical Stores (NMS) for storage and distribution of ACTs procured under the PMI
   Seven consignments of Coartem® have arrived in Uganda and are being held in the National Medical Stores. Distribution of 46% of what has been received so far has been achieved and all hospitals have received Coartem® as per the MOH/NMCP distribution schedule. Distribution of Coartem® to lower facilities has been accomplished in all the regions of the country covered by NMS for two cycles, however, there is a general outcry of the inadequacy of the supplies and the irregularity of the deliveries. The planned 20% of the Coartem® consignments to be provided to the Joint Medical Store for distribution to non-Governmental and Faith-Based Organizations, is being delivered up to the five consignments cleared by the National Drug Authority, however, the same complaint of inadequacy of supplies is faced by Joint Medical Store.

Under PMI/Uganda funding, the NMS received, and is storing 261,200 USAID/PMI treatment doses. These will be distributed to Northern Uganda as part of the “Jumpstart” activity. The associated cost of handling for storage and distributing these doses by NMS - $70,000 US dollars will be paid by RPM Plus. In addition, to ensure the immediate availability of coartem to the rest of the population served by government Health facilities, RPM Plus will fund extra labor costs for preparing orders to supply buffer stocks to the districts and contract a firm to transport Coartem® to Health sub-district level at a total cost of
$30,000. RPM Plus will also work with NMS and NMCP to put in place systems and procedures for the coordination of the monitoring of the distribution and availability of ACTs for Health facilities. A Senior Program Associate (Pharmacist) will be hired to provide direct technical assistance to NMS. The person will review orders from health facilities to ensure rationality of ordering, follow up with NMS to ensure timely deliveries, support the development of an MIS to enable accuracy in generation of data for quantification of Malaria medicines. S/he will support the development of documents and materials and transfer of skills that have been successful in other countries.

4. Support the establishment and coordination of a National Malaria Commodities and Medicines Supply Chain Committee
RPM Plus will work with the NMCP to establish a supply chain committee that will be charged with reinforcing the capacity of the National Medical Stores and Joint Medical Stores to manage the supply chain including the planning, quantification, implementation of national procurements for the public and private distribution of malaria medicines and commodities, including ITNs. The committee will develop a two year operational plan that will guide implementation of activities to ensure availability and rational use of antimalarial medicines, especially ACTs.

5. Work with NMCP to develop a plan of action to facilitate distribution, availability, use and reporting of ACTs including adapting an RPM Plus monitoring tool
With the malaria supply chain committee and in accordance with the ACT roll-out strategy RPM Plus will support the development of a plan for distributing reporting and monitoring of ACTs by ensuring that there is establishment of:

- national level capacity and plans for receipt, storage and distribution of ACTs
- district health facility capacity and plans for receipt and storage of ACTs
- plans for determination and provision of support to district health facilities to enable the proper quantification of ACTs and thus ensure adequate supply and availability of ACTs
- a system for the determination, procurement and district distribution of other antimalarials.
- mechanisms for maintaining accurate inventory records and tracking of Artemether-Lumefantrine and other antimalarial medicines in use within the public sector
- strategies for covering storage and distribution costs and minimizing leakage to ensure malaria medicines availability at health facilities
- support the existing commodity monitoring and evaluation system and strengthen key levels of the supply system in support of malaria
control by adapting RPM Plus monitoring tools that have been tested and seen to work in other countries.

6. **Work with NMCP, NMS and NDA to design a strategy for phasing out Chloroquine as first line for malaria case management and other mono-therapies.**

   This will be done by supporting the development of a strategic plan of action by NMS, NMCP and NDA. A combination of adapting some strategies that have worked in other countries and local experiences will be used.
Timelines

The timeline for all activities within this work plan is from October 2005 – March 2007. The over flow of the implementation of activities into 2007 is due to the late receipt of funds from USAID. Subsequent RPM Plus activities will be determined contingent upon continuity of the project.

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.
### Performance Monitoring Matrix

**PMI /RPM Plus FY 2006/2007 Work plan**

**Performance Monitoring Matrix**

<table>
<thead>
<tr>
<th>Intermediate Result</th>
<th>Activities</th>
<th>Products</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>Prim ary HPS S</th>
<th>Second ary HPSS</th>
<th>BG SO</th>
<th>Mission Results</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1. Technical activity coordination and monitoring</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td></td>
<td>2. Office Management</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
|                     | 3. Provide financial and technical support to National Medical Stores (NMS) for storage and distribution of ACTs. | 1. MOU with NMS for handling fees payment  
2. receipts of payment of handling fees  
3. SOW for technical support  
4. ACTs distribution reports and records | 1. ACTs stored and distributed by NMS  
2. Technical support for the coordination of monitoring and distribution of ACTs available | Improved availability of ACTs to Health facilities |
|                     | 4. Support the establishment and coordination of a National Malaria Commodities and Medicines Supply chain committee | 1. Committee established, meets regularly, minutes and recommendations produced.  
2. Committee work plan | 1. ACTs needs for Uganda Quantified for procurement  
2. Strategic plan to increase PFP access to ACTs  
3. Training plan for | 1. Improved coordination among partners in PSM for Malaria commodities and Medicines  
2. Improved |
<table>
<thead>
<tr>
<th>Activities</th>
<th>Products</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>Primary HPS</th>
<th>Secondary HPSS</th>
<th>BG HSO</th>
<th>Mission Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Work with NMCP, NMS, JMS and other partners to develop a plan of action to facilitate distribution, availability, use and reporting of ACTs including adapting an RPM Plus monitoring tool</td>
<td>Document entailing plan of action for distribution and monitoring of ACTs</td>
<td>An operational plan for Procurement, storage and distribution of ACTs and other antimalaria medicines available</td>
<td>Efficient public-sector distribution and improved monitoring, availability and use of ACTs at national and lower health facility levels.</td>
<td></td>
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<tr>
<td></td>
<td>Tool adapted, available and functional</td>
<td>Tool available for use by program managers and partners to monitor distribution and availability of ACTs.</td>
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</tr>
<tr>
<td>6. Work with NMCP, NMS and NDA to design a strategy for phasing out Chloroquine as first line for malaria case management</td>
<td>Document entailing Strategic plan for phasing out Chloroquine and other</td>
<td>Strategic plan available to Program Managers to enable phase out Chloroquine and</td>
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</tbody>
</table>

- **Primary HPS**
- **Secondary HPSS**
- **BG HSO**
- **Mission Results**
<table>
<thead>
<tr>
<th>Intermediate Result</th>
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</thead>
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<td>Outputs</td>
<td>Outcomes</td>
<td>Primary</td>
<td>Secondary</td>
<td>Mission</td>
</tr>
<tr>
<td>and other mono-therapies</td>
<td>mono-therapies</td>
<td>plan</td>
<td>other mono-therapies</td>
<td>HPS S</td>
<td>HPSS</td>
<td>HSO</td>
</tr>
</tbody>
</table>
## Program Activity Matrix

<table>
<thead>
<tr>
<th>Activities</th>
<th>Partners and Collaborators</th>
<th>Staff</th>
<th>Travel per diem</th>
<th>Significant expenses</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Technical activity coordination and monitoring</td>
<td></td>
<td>Saul Kidde</td>
<td></td>
<td></td>
<td>$46,800</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bannet Ndyanabangi Abiola Johnson Nicolette Regis</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2. Office Management</td>
<td></td>
<td>Sunday Erisa Alan Rogosch Nicolette Regis</td>
<td></td>
<td></td>
<td>$64,450</td>
</tr>
<tr>
<td>3. Provide financial and technical support to National Medical Stores (NMS) for storage and distribution of ACTs.</td>
<td>NMS/NMCP</td>
<td>Saul Kidde Senior Program Associate (TBD)</td>
<td></td>
<td></td>
<td>$90,000</td>
</tr>
<tr>
<td>4. Support the establishment and coordination of a National Malaria Commodities and Medicines Supply chain committee</td>
<td>WHO/NMCP/Pharmacy dept. MOH/NMS/JMS</td>
<td>Saul Kidde Senior Program Associate (TBD)</td>
<td></td>
<td></td>
<td>$25,000</td>
</tr>
<tr>
<td>5. Work with NMCP, NMS, JMS and other partners to develop a plan of action to facilitate distribution, availability, use and reporting of ACTs including adapting an RPM Plus monitoring tool</td>
<td>NMCP/Pharmacy dept. MOH</td>
<td>Saul Kidde Gladys Tetteh Senior Program Associate (TBD) Kathy Webb</td>
<td></td>
<td></td>
<td>$60,327</td>
</tr>
<tr>
<td>6. Work with NMCP, NMS and NDA to design a strategy for phasing out</td>
<td>NMCP/NDA.NMS</td>
<td>Saul Kidde</td>
<td></td>
<td></td>
<td>$13,368</td>
</tr>
<tr>
<td>Activities</td>
<td>Partners and Collaborators</td>
<td>Staff</td>
<td>Travel per diem</td>
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<tr>
<td>Chloroquine as first line for malaria case management and other monotherapies</td>
<td></td>
<td>Associate (TBD) Gladys Tetteh</td>
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<tr>
<td><strong>Total</strong></td>
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<td></td>
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<td></td>
<td><strong>$299,945</strong></td>
</tr>
</tbody>
</table>