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Rational Pharmaceutical Management Plus Program/Management Sciences for Health

Access to Clinical and Community Maternal, Neonatal and Women's Health Services
Program/JHPIEGO

U.S. Centers for Disease Control and Prevention

World Health Organization



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About RPM Plus

RPM Plus works in more than 20 developing and transitional countries to provide technical assistance to strengthen medicine and health commodity management systems. The program offers technical guidance and assists in strategy development and program implementation both in improving the availability of health commodities—pharmaceuticals, vaccines, supplies, and basic medical equipment—of assured quality for maternal and child health, HIV/AIDS, infectious diseases, and family planning and in promoting the appropriate use of health commodities in the public and private sectors.

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ACRONYMS AND ABBREVIATIONS

| | |
|----------|--|
| ACCESS | Access to Clinical and Community Maternal, Neonatal and Women’s Health Services (Program) [USAID-funded program] |
| ACT | artemisinin-based combination therapy |
| AFRO | Regional Office for Africa [WHO] |
| CDC | U.S. Centers for Disease Control and Prevention |
| CORP | community-owned resources personnel |
| DRC | Democratic Republic of the Congo |
| FANC | focused antenatal care |
| FBO | faith-based organization |
| GFATM | Global Fund to Fight AIDS, Tuberculosis and Malaria |
| HANMAT | Horn of Africa Network for Monitoring Antimalarial Treatment |
| HQ | Headquarters [WHO Geneva] |
| IPT | intermittent preventive treatment |
| IR | intermediate result [USAID] |
| JHPIEGO | Johns Hopkins Program for International Education in Gynecology and Obstetrics |
| M&E | monitoring and evaluation |
| MAC | Malaria Action Coalition |
| MIP | malaria in pregnancy |
| MIPESA | Malaria in Pregnancy East and Southern Africa [Coalition] |
| MIPWG | Malaria in Pregnancy Working Group [RBM] |
| NMCP | National Malaria Control Program |
| PMI | President’s Malaria Initiative |
| PMTCT | prevention of mother-to-child transmission |
| PQI | performance and quality improvement |
| RACTAP | Réseau d’Afrique Centrale pour le Traitement Antipaludique |
| RAOPAG | Réseau d’Afrique de l’Ouest sur le Paludisme pendant la Grossesse (West Africa Network for Malaria during Pregnancy) |
| RBM | Roll Back Malaria (Partnership) |
| RDT | rapid diagnostic test |
| RPM Plus | Rational Pharmaceutical Management Plus (Program) |
| SO | strategic objective [USAID] |
| SP | sulfadoxine-pyrimethamine |
| USAID | U.S. Agency for International Development |

| | |
|--------|--|
| USP | United States Pharmacopeia |
| WANMAT | West African Network for Monitoring Antimalarial Treatment |
| WHO | World Health Organization |

EXECUTIVE SUMMARY

Worldwide, an estimated 300 million to 500 million cases of malaria occur every year, resulting in as many as 2.5 million deaths, mostly among young children. About 80 percent of all malaria deaths occur in sub-Saharan Africa. The Roll Back Malaria (RBM) Partnership works to support implementation of country-level programs aimed at achieving the malaria control targets defined in the Abuja Declaration, which were set by African heads of state in Abuja during the 2000 African Summit on Roll Back Malaria. The U.S. Agency for International Development (USAID) organized its funding to facilitate coordination and joint planning of the RBM partners and established the Malaria Action Coalition (MAC) in 2002 to contribute to the attainment of the Abuja targets and RBM goals for the prevention and control of malaria in Africa.

MAC is composed of four primary technical partners: the World Health Organization (WHO), the U.S. Centers for Disease Control and Prevention (CDC), and two USAID-funded programs—the Management Sciences for Health Rational Pharmaceutical Management (RPM) Plus Program and the consortium Access to Clinical and Community Maternal, Neonatal and Women’s Health Services Program (ACCESS). MAC supports RBM and coordinates with national governments, subregional networks, the private sector, and other RBM partners to provide technical support for RBM goals related to the attainment of two African Summit targets—

- That “at least 60 percent of those suffering from malaria have prompt access to and are able to use correct, affordable and appropriate treatment within 24 hours of the onset of symptoms”
- That “at least 60 percent of all pregnant women who are at risk of malaria, especially those in their first pregnancies, have access to chemoprophylaxis or presumptive intermittent treatment”¹ (intermittent preventive treatment [IPT])

Because of progress made in adopting new malaria control and treatment policies in many African countries since its inception, MAC was reoriented in 2004 to better focus technical assistance to achieve Abuja targets. This reorientation involved separating the two MAC focus areas—malaria treatment/case management and prevention of malaria in pregnancy (MIP). Specifically, the partners working within the two areas are now more independent in terms of work plans and budgets and in conducting and reporting their activities. ACCESS, CDC, and WHO provide technical expertise on MIP issues, while CDC, RPM Plus, and WHO work in concert to provide technical expertise on malaria case management.

MAC was appropriate at the time it was created and played a strategic role in leveraging Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) resources to ensure that support for systems strengthening was available through one technical assistance mechanism. However, the conditions that led to MAC’s creation three years ago have changed significantly. In today’s

¹ World Health Organization. 2000. *The Abuja Declaration and the Plan of Action: An Extract from the African Summit on Roll Back Malaria, Abuja, 25 April 2000* (WHO/CDS/RBM/2000.17). WHO: Geneva. <http://www.rbm.who.int/docs/abuja_declaration_final.htm> (accessed February 22, 2006).

complex malaria arena, mechanisms need to be able to fill a broad range of technical and operational requirements. At the country level, missions require specific technical assistance to fill gaps in their malaria portfolios. At the global and regional levels, technical leadership is needed to coordinate partners, identify future needs, and inform country programming. An internal review for MAC was carried out in March 2006; the review resulted in a decision to dissolve MAC a year early and allow organizations to provide technical assistance individually while encouraging established relationships to continue.²

Despite the decision to end MAC a year earlier than originally planned, partners continued working with national governments, malaria control programs, and subregional networks to strengthen local capacity to implement malaria control and prevention programs during Year 4. MAC partners provided support to more than 25 countries in sub-Saharan Africa through USAID core- and field-support funds. Technical assistance was provided directly to national governments or through subregional networks and other RBM partners. MAC partners assisted in the implementation and scale-up of IPT programs in numerous countries to reduce the effect of MIP. MAC partners also assisted countries in planning for and strengthening systems needed for an effective transition to and implementation of artemisinin-based combination therapies (ACTs). In countries where MAC partners received field support from USAID Missions, MAC partners worked with in-country partners to improve and advance national malaria control program strategies.

² USAID/HIDN. April 4, 2006. “Malaria Action Coalition Review.” (U.S. Agency for International Development, unpublished, in author files.)

INTRODUCTION AND BACKGROUND

The mission of the RBM Partnership today is to work toward implementing more responsive country-level programs to reach targets for malaria control set by African heads of state in Abuja in 2000. To this end, the partnership has developed stronger mechanisms for coordinating technical and financial support to intercountry teams.

USAID, which organized its funding to facilitate coordination and joint planning among the RBM partners, established MAC in 2002 to help attain the Abuja targets and RBM goals for the prevention, treatment, and control of malaria in Africa.

Malaria Situation in Africa, the Abuja Targets, and RBM

Worldwide, an estimated 300 million to 500 million cases of malaria occur every year, causing up to 2.5 million deaths, about 80 percent of them in sub-Saharan Africa. In areas of stable malaria transmission, very young children and pregnant women are the population groups at highest risk for malaria morbidity and mortality.³ Most children experience their first malaria infections during the first two years of life when they have not yet acquired adequate clinical immunity, making these early years particularly dangerous, because 90 percent of all malaria deaths in Africa occur among young children. Adult women in areas of stable transmission typically have a high level of immunity, but immunity is impaired during pregnancy—especially a first pregnancy—and the risk of malaria infection is elevated. Placental malaria infection can result in low-birth-weight infants and preterm delivery.

Not only does stable transmission of malaria in sub-Saharan Africa result in high morbidity and mortality, but it also places a heavy burden on already encumbered health systems and negatively affects human productivity. Poor people shoulder an undue burden because they are at greater and more frequent risk of infection with the malaria parasite.

In 1998, WHO, the United Nations Children's Fund, the United Nations Development Programme, and the World Bank launched the RBM Partnership to provide a coordinated global approach in fighting malaria. The RBM Partnership's goal is to halve the burden of malaria by 2010. RBM partners are working together to scale up malaria control efforts at the country level by coordinating their activities to avoid duplication and fragmentation and to ensure optimal use of resources.

In April 2000, African heads of state met in a historic summit in Abuja, Nigeria, to express their personal commitment to tackling malaria and to establish targets for implementing the technical strategies needed to effect the goals of RBM.⁴ The African Summit on RBM reflected a real

³ World Health Organization (WHO)/United Nations Children's Fund (UNICEF). 2003. *Africa Malaria Report 2003*. WHO/CDS/MAL/2003.1093. Geneva: WHO/UNICEF.

⁴ Roll Back Malaria (RBM) Partnership Secretariat and World Health Organization (WHO). 2000. *The Abuja Declaration and the Plan of Action: An Extract from the African Summit on Roll Back Malaria, Abuja, 25 April 2000*. WHO/CDS/RBM/2000.17. Geneva: RBM Partnership Secretariat and WHO.

convergence of political momentum, institutional synergy, and technical consensus on malaria. Representatives of 44 of the 50 malaria-affected countries in Africa attended the summit. The heads of state and other delegates reviewed evidence, debated options, and ratified an action-oriented declaration with strong provisions for follow-up.

The leaders resolved to “initiate appropriate and sustainable action to strengthen the health systems to ensure that by the year 2005—

- At least 60 percent of those suffering from malaria have prompt access to and are able to use correct, affordable, and appropriate treatment within 24 hours of the onset of symptoms.
- At least 60 percent of those at risk of malaria, particularly pregnant women and children under five years of age, benefit from the most suitable combination of personal and community protective measures such as insecticide-treated mosquito nets and other interventions which are accessible and affordable to prevent infection and suffering.
- At least 60 percent of all pregnant women who are at risk of malaria, especially those in their first pregnancies, have access to chemoprophylaxis or presumptive intermittent treatment.”⁵

Malaria Action Coalition

MAC is composed of four primary technical partners: WHO’s Regional Office for Africa (WHO/AFRO), the CDC, and two USAID-funded programs—the RPM Plus Program and the ACCESS Program. MAC functions as an integral part of the RBM Partnership for Africa—responding to developments in that partnership and coordinating its actions as appropriate with other partners. MAC works with USAID Missions, national governments, subregional networks, and private sector partners in Africa to strengthen malaria prevention and control strategies. MAC also coordinates with other RBM partners to provide technical support toward attaining RBM goals as related to two of the Abuja Declaration targets—a focus on access to prompt and effective treatment and access of pregnant women to IPT.

MAC works with governments and private sector partners to design malaria prevention and control programs and provides technical support to implement interventions and activities that strengthen health systems for malaria control and prevention. In particular, MAC provides coordinated and focused expertise to strengthen maternal and child health services, pharmaceutical management systems, and medicine monitoring and surveillance services.

In the first two years of MAC’s existence, technical emphasis was placed on supporting country efforts to adopt appropriate policies to enhance access to effective treatment and to prevent and control malaria in pregnancy. The instrument for achieving this goal was the joint annual work

⁵ World Health Organization. 2000. *The Abuja Declaration and the Plan of Action: An Extract from the African Summit on Roll Back Malaria, Abuja, 25 April 2000* (WHO/CDS/RBM/2000.17). WHO: Geneva. <http://www.rbm.who.int/docs/abuja_declaration_final.htm> (accessed February 22, 2006).

plan of all the partners for both core USAID funds and field-support funds. Appropriate planning, reporting, and monitoring and evaluation (M&E) templates were developed to facilitate this effort. Toward the end of the second year, as a result of rapid progress made in adoption of appropriate policies, MAC was reoriented to consist of two independent components—

Malaria in pregnancy component: The partners were JHPIEGO, WHO, and CDC. This component supported countries in strengthening national capacity to deliver IPT, including human resources, pharmaceutical logistics, and other issues affecting the quality of services, and sharing lessons learned across countries and subregions to move countries toward scale-up of effective strategies for prevention of MIP.

Case management component: The partners were MSH/RPM Plus, WHO, and CDC. The aim of this component was to ensure a smooth and effective implementation of changing to ACTs by supporting countries on medicine efficacy monitoring, pharmaceutical and commodities management, consensus on diagnostic approaches, and development of pharmacovigilance systems.

Following the MAC reorientation, a MAC strategic plan for 2005–2007 was developed. The strategic plan was accompanied by an elaborate MAC M&E framework. Three strategic approaches for MAC activities were defined—

1. *Policy development:* Four strategies were adopted—
 - Development and support to regional MIP and treatment networks
 - Collaboration with other partnerships, such as the Western Africa RBM Network and East Africa RBM Network
 - Participation in committees of international organizations.
 - Development of technical resources for use by the international public health community
2. *Policy implementation:* The strategies were—
 - Support for development of tools, strategies for implementation plans, and negotiation for grants
 - Development of resources for policy implementation and M&E
 - Capacity building
 - Operational research
3. *Support to countries:* Technical support was provided to target countries based on the four MAC intermediate results. Two groups of MAC target countries were selected: countries for which MAC received funding for one or more years from the respective

USAID country offices—Democratic Republic of Congo (DRC), Ghana, Kenya, Madagascar, Mali, Nigeria, Rwanda, and South Sudan; and countries for which the MAC treatment partners undertook a technical assistance scoping mission—Benin, Burundi, Ethiopia, and Senegal.

In the last several years, many malaria-endemic African nations have moved to adopt more-effective malaria treatment policies and policies for preventing MIP. This movement has primarily been in response to increasing resistance of the malaria parasite to traditional treatments, such as chloroquine and sulfadoxine-pyrimethamine (SP). MAC partners have provided technical support to assist these countries in the policy change process. During the past year, however, MAC partners have focused on helping countries begin implementing their new treatment and MIP policies. MAC partners provide technical assistance and support systems strengthening through strategic framework development, epidemiology and operations research, policy dialogue, pharmaceutical management and regulation, medicines use and practices, communication/behavior change, performance improvement, M&E, pharmacovigilance, and the implementation of pilot interventions.

As outlined in the USAID MAC Review conducted in early 2006, malaria programming in Africa has undergone dramatic changes in both the policy and donor resource arenas in the past three years. On the policy front, most countries in Africa have adopted policies and have begun implementation to support the use of ACTs for case management and IPT with SP for malaria in pregnancy. The donor resource base for malaria has significantly increased as new players like the Bill & Melinda Gates Foundation and the President’s Malaria Initiative (PMI) scale up activities in selected countries. Of particular significance for MAC’s future is the PMI. USAID is the lead agency for the president’s \$1.2 billion, five-year initiative to control malaria in Africa. The goal of the initiative is “to reduce malaria-related deaths by 50 percent in 15 countries by achieving 85 percent coverage of proven preventive and curative interventions and eventually cover more than 175 million people.”⁶

Today’s expanded donor resource base implies more autonomy for malaria programming, especially with U.S. government funds. Given this new environment, the need for strategic partnership with one funding source, as intended with MAC, is not as necessary. Now that most countries have adopted new case management and MIP policies, USAID may no longer need a one-stop shop with bundled capacity to support malaria programs.

In March 2006, the infectious disease division of USAID’s Health, Infectious Disease and Nutrition Office commissioned an internal review of MAC. Given the complexity and new challenges of the current environment, the review recommended the following course of action—

- Dissolve MAC and permit individual MAC partners to provide direct technical assistance and consultation

⁶USAID/HIDN. April 4, 2006. “Malaria Action Coalition Review.” (U.S. Agency for International Development, unpublished, in author files.)

- At the mission level, allow organizations to provide technical assistance individually, thus providing the specific technical assistance that the missions need with an emphasis on scale-up and implementation
- Engage WHO in an advisory capacity
- Because CDC is already heavily engaged with USAID as part of the PMI, consider that additional mechanisms for involving CDC may no longer be needed
- Handle the leadership and technical role originally intended for MAC through the PMI and the restructuring of the USAID malaria team

M&E Results Framework

MAC focuses on Africa as a target region and supports both RBM strategies and approaches and the Abuja Declaration. MAC's strategic objective is strengthened health systems for the appropriate management of malaria. USAID/Washington originally authorized MAC for a period of five years (2002–2007); however, based on the MAC review conducted in early 2006, MAC funding was significantly reduced to allow for its gradual winding down in the final year.

MAC's strategic objective supports USAID/Bureau for Global Health Strategic Objective 5 (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"; and SO2, "Increased use of key maternal health and nutrition interventions." MAC's intermediate results (IRs) feed directly into achieving the strategic objectives, and the activities under each IR emphasize the treatment of children under the age of five and the management and control of MIP. The four IRs are—

IR 1. Appropriate Policies in Place for the Treatment of Malaria and the Control of MIP

IR 2. Strengthen National-Level Capacity to Improve Access to and Use of Commodities and Services

IR 3. Strengthen National-Level Capacity to Improve Demand for Appropriate Prevention and Treatment of Malaria

IR 4. Strengthen National-Level Linkages to Leverage Resources from Other RBM Partners

To monitor achievements, MAC developed an M&E framework with indicators. Subsequently, MAC developed a results matrix to monitor achievement of the indicators for each of the two MAC components: malaria case management and malaria in pregnancy. For each component, a results matrix was developed, organized in two strategic areas: policy development and implementation, and support to countries.

MAC YEAR 4 PROGRESS: CASE MANAGEMENT

IR 1. Appropriate Policies in Place for the Treatment of Malaria and the Control of MIP

Core-Funded Regional- and Subregional-Level Support

- CDC completed the draft of a CD-ROM titled *CDCynergy: Managing Effective Antimalarial Policies* and shared the product with partners and potential users before creating a final version. This interactive software tool is designed to assist ministries of health and other malaria program specialists in countries affected by malaria as they revise their antimalarial medicine policies and develop, launch, and evaluate the policies and plans.
- The WHO/AFRO Intercountry Programme and Headquarters (HQ) team attended the second Horn of Africa Network for Monitoring Antimalarial Treatment (HANMAT) meeting to update participants on WHO 2005 protocol for antimalarial medicine efficacy monitoring.
- CDC continued to provide technical support to the case management network for HANMAT countries through support of its annual meetings. A CDC staff member attended the September 2006 HANMAT meeting to assist the network in identifying new funding sources for its sustainability. WHO/AFRO and HQ teams also attended this meeting to update participants on the following issues related to the introduction of ACT: ACT policy implementation, public sector procurement, availability of quality ACTs, and new ACTs in the pipeline; innovative financing (international drug purchase facility, or UNITAID-IDPF); update on malaria rapid diagnostic tests (RDTs); and the WHO “ban” on oral artemisinin monotherapies.
- WHO provided technical support to the West African Network for Monitoring Antimalarial Treatment (WANMAT) I general assembly and updated member countries on the WHO 2005 protocol for antimalarial medicine efficacy monitoring. Plans of action for monitoring antimalarial efficacy at country level and WANMAT support were developed during the general assembly meeting. A database on antimalarial efficacy was made available and published on the website and in a newsletter. The WANMAT secretariat participated in a national consensus meeting for antimalarial treatment policy change, which was based on antimalarial efficacy data. The WANMAT coordinator and his team undertook a mission in countries to strengthen sentinel site capacity. WHO also developed a fieldworker manual for testing antimalarial medicine efficacy in vivo. Additionally, WHO supported and participated in a workshop on antimalarial quality assurance in Dakar, Senegal, during which WHO refreshed participants’ knowledge on ACT technical and operational implementation strategy. AFRO, in collaboration with the Gates Malaria Partnership, supported WANMAT I in quality assessment, monitoring, and data management in sentinel sites.
- WANMAT II provided technical support to member countries during a workshop to harmonize and adopt a protocol for monitoring antimalarial medicine efficacy, and also held a workshop on quality assurance and quality control for medicine efficacy testing. An

assessment of sentinel sites was conducted to identify gaps and to reinforce capacity. A training of trainers on medicine efficacy testing was supported, and a database and mapping on antimalarial medicine efficacy were made available in member countries. The WANMAT II website is now functional, and WHO/AFRO supported improvements of the network's communication by editing the network newsletter, which shares country experiences. During the WANMAT II general assembly meeting in Cotonou, Benin, February 2006, AFRO updated participants on choosing RDTs in relation to occurrence of different parasite species. AFRO also discussed ethical issues for antimalarial medicine efficacy testing funded by WHO.

- WHO supported the development of the Réseau d'Afrique Centrale pour le Traitement Antipaludique (RACTAP) website and newsletter, aimed at advocacy and sharing country experience on antimalarial medicine efficacy monitoring and ACT implementation. WHO also developed and disseminated a database and mapping of antimalarial medicine efficacy in RACTAP member countries.
- The AFRO MAC team attended the drugs for neglected diseases initiative (DNDi) meeting in Nairobi, Kenya, in September 2006, where the challenges of implementing ACTs and the fixed-dose artemisinin-based combination therapy (FACT) progress were discussed.
- The WHO/AFRO and HQ teams are working on the draft of a malaria case management operational manual.
- Guidance for national malaria control programs (NMCPs) on selection of RDTs in relation to occurrence of different parasite species was developed by AFRO in collaboration with the RBM department.
- CDC participated in the annual review meeting of East African RBM Network partners and member countries, giving CDC the opportunity to work with RBM partners to coordinate technical support to countries in the region and update itself on the malaria activities being conducted in the subregion. CDC/Kenya led a presentation on the use of demographic health surveillance and presented a brief overview of the PMI.
- CDC participated in the annual meeting of West African RBM Network partners, assisting with the development of the 2006 workplan. CDC helped the network identify issues within the network and prioritize them.
- RPM Plus produced and disseminated widely the French and English versions of *Changing Antimalarial Policy to Artemisinin-Based Combination Therapies: An Implementation Guide*, developed jointly with the GFATM and RBM.
- RPM Plus collected and collated data on availability of antimalarials following RPM Plus interventions on pharmaceutical management from DRC, Ghana, Kenya, and Senegal for the May 31, 2006, Global Health Council panel session presentation on improving policies for malaria in the face of drug resistance. The well-received presentation generated much discussion. RPM Plus developed a presentation on Improving Access to Essential Medicines

for Effective Malaria Case Management in Endemic Countries to be presented at the American Public Health Association's annual meeting in November 2006.

- Discussions were held with the World Bank and the International Finance Corporation on assistance by RPM Plus in potential activities. RPM Plus also participated in discussions with the World Bank regarding its Booster Program training tools in supply chain management and reviewed these materials.
- The GFATM requested RPM Plus to conduct case studies on the implementation of GFATM malaria grants in three West African countries (Ghana, Guinea-Bissau, and Nigeria). Data was expected to be collected in October and November 2006 to inform development of these case studies.
- RPM Plus wrote a chapter on pharmaceutical management for malaria and provided tools and templates for JHPIEGO's Malaria in Pregnancy Toolkit.

Core-Funded Country-Level Support

- Guinea-Bissau is a beneficiary of a GFATM Round 4 grant; however, ACT forecasting and procurement were not included in the grant application because the drug policy change was only adopted in July 2005. To help move toward phase II with ACT reprogramming, WHO/AFRO supported a workshop to identify strategic, technical, and operational components of an ACT implementation plan.
- AFRO provided feedback on Ethiopia's national five-year strategic plan (2006–2010) for malaria prevention and control.
- Benin has started implementing ACT and IPT. Because ACTs are new in the market, post marketing surveillance systems were designed to detect adverse drug reactions not previously observed in preclinical or clinical studies. Additionally, IPT with SP requires monitoring of SP side effects in pregnancy. WHO supported Benin in setting up pharmacovigilance systems to monitor the potential occurrence of unexpected serious drug reactions and to prevent drug-induced human suffering. A pharmacovigilance implementation plan was developed and a pharmacovigilance training of trainers was held.
- AFRO supported Burundi, Kenya, and Rwanda in developing malaria case management guidelines.
- AFRO provided feedback on adverse drug reaction forms for Kenya developing pharmacovigilance system.
- AFRO sent a senior consultant to support Senegal in developing its pharmacovigilance plan focused on ACT (August 2006).
- CDC provided technical assistance to Senegal's NMCP in developing a questionnaire and plans to evaluate the national malaria control program. The data comes from a recently

completed five-year strategic plan and serves as a baseline for Senegal's new strategic work plan for 2006–2010. The questionnaire was later merged with WHO's evaluation of the five-year malaria strategic plan.

IR 2: Strengthen National-Level Capacity to Improve Access to and Use of Commodities and Services

Core-Funded Regional- and Subregional-Level Support

- RPM Plus conducted Regional Pharmaceutical Management of Malaria workshops for East and Southern Africa and West and Central Africa in Tanzania and Senegal, respectively. Representatives from 23 nations' NMCPs, Central Medical Stores, and Pharmacy Departments participated in these workshops.
- Together with WHO and the United States Pharmacopeia (USP), RPM Plus planned and developed materials for a regional workshop on the quality of antimalarials, in cooperation with USP Drug Quality and Information Program, held in Tanzania, November 14–16, 2006.
- RPM Plus began development of a guide for use by countries to monitor and evaluate pharmaceutical aspects of ACT policy implementation. The original scope of this activity was expanded to include application of the guide in selected MAC/RPM Plus–supported countries: DRC, Kenya, and Senegal.
- RPM Plus developed, finalized, and incorporated a chapter on malaria for the Quantimed[®] manual. The Quantimed manual accompanies the Quantimed electronic tool developed by RPM Plus. Quantimed supports the calculation of pharmaceutical needs for health programs. With appropriate data, Quantimed can be applied to determine needs for a single health facility, a national program, or a group of geographic or administrative areas.
- Together, MAC (CDC, RPM Plus, and WHO/AFRO) and in-country partners held a two-day workshop in Madagascar in February 2006, providing a brief introduction and overview on the principles of pharmacovigilance and the structure of the current Malagasy health system. An action plan and draft adverse drug reaction reporting form was developed. CDC also participated in and provided technical assistance to Madagascar's National Drug Agency for the subsequent five-day training-of-trainers workshop concerning pharmacovigilance activities in Madagascar. This activity was also supported with Madagascar field-support funds.
- Following the case management scoping mission carried out in March 2005, RPM Plus provided technical assistance to the Burundi NMCP based on scoping mission recommendations. RPM Plus also supported and facilitated an orientation workshop for malaria treatment guidelines review and began an assessment of the Burundi pharmaceutical distribution system in 8 of 17 provinces.

IR 3: Strengthen National-Level Capacity to Improve Demand for Appropriate Prevention and Treatment of Malaria

Core-Funded Country-Level Support

- RPM Plus, along with the Academy for Educational Development through a subgrant, supported the Burundi Ministry of Health's Information, Education, and Communication Department in developing a malaria case management job aid.

IR 4: Strengthen National-Level Linkages to Leverage Resources from Other RBM Partners

Core-Funded Regional- and Subregional-Level Support

- CDC participated in the GFATM/RBM West and Central Africa Regional Malaria workshop. CDC's participation in the partners' meeting was an opportunity to discuss the need for a simplified and coordinated M&E framework for data collection in the various programs.
- RPM Plus participated in the GFATM Procurement, Management, and Supply Plan development workshops in Accra, Ghana, and Nairobi, Kenya, in January and February 2006. RPM Plus assisted six countries with their procurement and supply management plans for malaria. RPM Plus made a presentation on quantification and forecasting of medicines, focusing on the special considerations for quantification of antimalarials. In collaboration with the GFATM and the RBM partnership, RPM Plus held a workshop discussing implementation bottlenecks for malaria for West African GFATM recipient countries.
- CDC participated in the malaria global partners' harmonization meeting. During this meeting, CDC worked with some of the countries present to identify problems facing their program implementation. Participants developed an action plan to identify and address the problems that are hindering use of the GFATM.

Core-Funded Country-Level Support

- RPM Plus assisted Burundi, DRC, Ethiopia, Kenya, Senegal, and southern Sudan with development of GFATM Round 6 malaria grant proposals.

MAC YEAR 4 PROGRESS: MALARIA IN PREGNANCY

IR 1: Appropriate Policies for the Treatment of Malaria and the Control of MIP in Place

Core-Funded Regional- and Subregional-Level Support

- JHPIEGO serves as the secretariat for the RBM Malaria in Pregnancy Working Group (MIPWG) and provides technical representation through the ACCESS Clinical Director. JHPIEGO has helped coordinate the working group's efforts and mandate in this past year, leading to better awareness of key issues affecting the implementation of malaria during pregnancy—specifically, the interaction between malaria and HIV and the effect on pregnant women, and the growing resistance to SP. ACCESS, CDC, and WHO (HQ and AFRO) participated in the RBM MIPWG meeting in April 2006. The group's action plan was revised to support the RBM strategy and approach for scaling up MIP programming for sustainable impact. Technical updates and program experiences were shared related to the prevention and control of malaria during pregnancy. Meeting outcomes included commitment to reinforce prenatal clinics as a platform for care for MIP, agreement on the need to strengthen regional networks, guidelines for country use in drafting their specific GFATM applications, and agreement on key issues affecting scale-up and how to address these challenges.
- WHO/AFRO and ACCESS contributed to development, review, and finalization of the final RBM MIP monitoring and evaluation framework and report, which is available as a final draft on the RBM website and will be disseminated by WHO and RBM partners.
- ACCESS worked with faith-based organization (FBO) partners to scale up essential maternal and newborn care through local FBOs in Africa. As a follow-on to the August 2005 focused antenatal care (FANC)/MIP workshop for FBO and ministry of health representatives, ACCESS initiated a program to enable participating FBOs from Kenya, Malawi, Tanzania, Uganda, and Zambia to strengthen and scale up specific interventions in maternal and newborn health activities. FBOs from three countries have already submitted essential maternal and newborn care proposals. Another outcome of this workshop was the production and distribution of a FANC job aid to all 256 health units affiliated with the Uganda Protestant Medical Bureau.
- ACCESS collaborated with WHO to finalize the Malaria in Pregnancy East and Southern Africa (MIPESA) Coalition documentation of best practices and lessons learned. The document examines the experiences of the five MIPESA countries in adopting and implementing MIP policies and interventions to inform implementation and scale-up of MIP interventions in other African countries. The document presents country experiences, best practices, challenges encountered, and lessons learned, including adaptable approaches for the scale-up of interventions to prevent and control MIP. With support from USAID East Africa (formerly the USAID Regional Economic Services Development Office), the MIPESA document was disseminated widely to policy makers, program planners, donors,

and implementing partners in the subregion through the MIPESA focal persons. WHO also disseminated the publication through its country and HQ offices.

- MAC MIP partners participated in MIPESA steering committee and annual meetings.
- ACCESS, CDC, and WHO provided technical support to the secretariat of the West Africa Network for Malaria during Pregnancy (Réseau d’Afrique de l’Ouest de Lutte contre le Paludisme pendant la Grossesse—RAOPAG) and attended the annual meeting. RAOPAG serves as a forum for the exchange of MIP information among its member countries and is a catalyst for MIP policy change at the national level. CDC sponsored RAOPAG’s second annual meeting, and ACCESS provided support to the RAOPAG secretariat to develop the network’s 2006 action plan and a four-year strategic plan, which will be used to advocate for support of the network. During the MIPWG meeting held in Dakar, Senegal, MIP/Division of Reproductive Health worked with the RAOPAG delegation to review its strategic plan. ACCESS is also supporting the network to develop a database of MIP information that will be made available on the RAOPAG website to facilitate sharing experiences among member countries to further encourage scale-up of MIP at the national level. This activity was cofunded with USAID West Africa Regional Program field support.
- WHO/AFRO provided technical support to RAOPAG in the advocacy for MIP training workshop for program managers. National Malaria control and Reproductive health program Managers and from Benin, Burkina Faso, Cote d’Ivoire, Guinea, Mali, Niger Nigeria, Senegal and Togo participated. AFRO also trained participants on the integration of MIP into maternal and child health services.
- WHO/AFRO provided technical support to member states to review their malaria and reproductive health policies and programs and to integrate the MIP component.

Core-Funded Country-Level Support

- CDC provided technical support to the Rwanda NMCP on MIP policy adoption and for the adaptation of prenatal clinic IPT-focused training materials for health workers on how to implement IPT with SP.
- CDC has continued to provide support to Nigeria through its consultant, Bill Brieger, via an interagency agreement with Johns Hopkins University. Brieger serves as an expert consultant and adviser, maintaining and facilitating coordination and communication among RBM partners in Nigeria, advising the NMCP and partners on strategies for implementation of new malaria policies (in both MIP and core management), and providing malaria expertise to USAID/Nigeria and RBM partners as requested.
- WHO/AFRO provided technical support to Equatorial Guinea and Mauritania in IPT adoption.
- WHO/AFRO provided technical support to Congo-Brazzaville, Cameroon, Central African Republic, Eritrea, and Mozambique to review their policies and integrate MIP into their

national maternal, newborn, and child health services. For Cameroon, a national strategic plan was developed, while in Eritrea joint planning was conducted in reproductive health and malaria control.

IR 2: Strengthen National-Level Capacity to Improve Access to and Use of Commodities and Services

Core-Funded Regional- and Subregional-Level Support

- ACCESS collaborated with other MAC partners to develop the draft Malaria in Pregnancy Program Implementation Guide, which will serve as a tool for countries to initiate the implementation process or to strengthen the existing implementation process for MIP prevention and control. ACCESS also began revision of the Malaria Resource Package, originally developed in 2003, to add updated information on MIP and to include the implementation guide. The package will be disseminated in 2007.
- ACCESS coordinated with WHO to conduct an orientation workshop in Ghana in July 2006 on the prevention and control of MIP and prevention of mother-to-child transmission (PMTCT) of HIV in the context of FANC for participants from six countries of the AFRO region to strengthen the capacity of the participants in MIP and PMTCT as part of a comprehensive package of integrated maternal, newborn, and child health services. A total of 27 representatives from six countries—Gambia, Ghana, Liberia, Nigeria, Sierra Leone, and Uganda—participated in the workshop. Participants defined the desired performance concerning collaboration between the NMCP and the national reproductive health program and developed action plans to overcome barriers to collaboration.
- WHO/AFRO organized a consultative workshop on the use of SP for IPT during pregnancy in areas of moderate to high SP resistance, held in Harare, Zimbabwe, October 27–28, 2005. The statement on this was published in WHO and RBM website.
- To build the capacity of a core group of polyvalent consultants on the integration of MIP, PMTCT, and family planning into maternal and child health services, WHO/AFRO organized a regional training of experts to assist countries in the integration of MIP, PMTCT, family planning, and nutrition into maternal, newborn, and child health services. The training took place in Nairobi, Kenya, June 26–30, 2006, bringing together 34 participants from 13 anglophone and francophone countries. The draft MIP Implementation Guide was used as one of the working documents during the workshop. The workshop's main outcome was participant agreement and commitment to produce a unique document called the Implementation Framework of the Integration of MIP, PMTCT, FP, and Nutrition into Maternal, Newborn, and Child Health Services. The document will outline a minimum package of services to be delivered at every level of the health system: central, district, health facility, and community level. The steps for implementation and the major activities for the various levels were outlined.

- WHO/AFRO developed the latest version of the Integration Framework of MIP into reproductive health services, which was presented at the MIPESA and RAOPAG annual meetings for comment. First developed and presented during the 4th African Regional Task Force on Reproductive Health (Addis Ababa, Ethiopia, October 2005) and in the Technical Consultation on the Integration of HIV and MIP Interventions into maternal and child health (Geneva, April 2006) for comment and improvement, this tool is currently being finalized.
- CDC assisted RAOPAG countries in the development of action plans for program implementation and scale-up of IPT with SP and insecticide-treated bednets.

Core-Funded Country-Level Support

- ACCESS, in collaboration with the Kenya Ministry of Health, sensitized 33 provincial health team members and district health personnel about emerging issues in MIP and concerns in reproductive health at a “reinvigoration” meeting. Eight provincial reproductive health teams and personnel from three districts that have implemented the ACCESS community reproductive health/MIP orientation package (Makueni, Kwale, and Bondo) attended. In addition, the meeting served as a springboard to planning scale-up activities in the three districts. A clinical training skills course for the ministry of health staff was conducted in Nairobi. The workshop drew 26 participants from the Divisions of Reproductive Health and Malaria Control. A core team of trainers is now available to facilitate nationwide scale-up of FANC/MIP. This activity was cofunded with Kenya field-support funds.
- ACCESS conducted an integrated workshop in Abuja, Nigeria, in February 2006 for FANC/MIP, including supervision and sensitization to the link between HIV and malaria. Participants developed action plans targeting FANC, MIP, and PMTCT activities for the 15 states they represented. As a result of their participation in this workshop, 28 RBM and reproductive health coordinators from 15 states now have the capacity to use the performance and quality improvement (PQI) process for FANC as a platform for MIP and PMTCT.
- In Uganda, ACCESS is supporting strengthening FANC and MIP services by targeting FBOs. ACCESS is working in close collaboration with the Ministry of Health to ensure national health goals are achieved. This six-month project, which began in June 2006, has already resulted in an assessment of FANC/MIP at five health facilities in Kasese District, draft FANC clinical training materials, and community training materials. The materials have been pretested among faith-based providers. These materials are expected to be adopted nationally to roll out FANC with MIP nationwide. This activity was cofunded with funds from the USAID Africa Bureau’s Office of Sustainable Development (AFR SD).
- ACCESS worked with the NMCP and National Safe Motherhood Program in Madagascar to revise and develop training materials, job aids, and service delivery standards developed in previous years. The program supported validation, printing, and dissemination of 27,280 French and Malagasy posters and 8,304 French and Malagasy handouts. The two job aids are available in the prenatal clinic services area of 2,728 health centers.

ACCESS/MAC also worked to improve the quality of services in health sites with providers trained in FANC/IPT-SP by conducting infection prevention training in Madagascar. Three training activities for 78 participants were conducted by the NMCP's core group of trainers in four districts in the Antananarivo province. A total of 68 sites were covered by this training. The National Safe Motherhood Program and the District Health Medical Teams then joined the NMCP to conduct follow-up visits to each health facility. The visits provided an opportunity to assess the progress made in FANC/IPT-SP service delivery and to coach providers.

In March, after learning from the Malagasy NMCP that not enough trainers were available to support full national scale-up of MIP training, ACCESS/MAC conducted a clinical training skills course for 14 participants. During this activity, MAC qualified three advanced trainers. Seven of these participants went on to conduct MIP training and were qualified as clinical trainers. As a result of these training-of-trainer activities, 96 service providers were trained in MIP. In total, 27 clinical trainers have been qualified since the beginning of the MAC program in 2003, and 2,159 service providers have been trained in MIP service delivery.

Finally, to foster sustainability of the MIP programming interventions, ACCESS/MAC conducted a facilitative supervisory course for 21 supervisors of health providers who have been trained in FANC/IPT-SP. Participants learned how to use the PQI desired performance standard tool for regular follow-up and how to coach weaker providers to perform competently. In addition, the course demonstrated how to use the PQI approach to improve overall service delivery at the health facilities. (Cofunded with Madagascar field-support funds.)

- WHO/AFRO provided financial support to Mauritania to finalize a study on the burden of malaria during pregnancy in low transmission areas.
- WHO/AFRO provided technical support to the Madagascar NMCP for evaluation of IPT implementation in the public health sector and the possibility of extending IPT to the private sector as well as MIP guideline implementation and MIP implementation strategies in health facilities (ongoing). This support included updating the national trainer and health worker MIP tools.
- WHO/AFRO in collaboration with JHPIEGO provided technical support to the Rwanda NMCP in monitoring the IPT implementation in the health facility level, including development of a new proposal, "Strengthen capacity of antenatal clinic services in Rwanda," and a concept paper on "Evaluation of MIP implementation strategies in Rwanda."
- WHO/AFRO provided technical support to NMCP of Uganda to review and disseminate the results of the study "Community Programme Trial to Strengthen Traditional Health Systems (THS) for Malaria Control and Prevention in Pregnancy."
- WHO/AFRO provided technical and financial support for the adoption and implementation of strategic plans for control and prevention of malaria during pregnancy in Cameroon, Gambia, and Mali, and to evaluate the MIP implementation strategies in Senegal.

- WHO/AFRO provided technical support to Burkina Faso, Guinea-Bissau, and Madagascar in conception and implementation of an IPT and insecticide-treated net distribution project through the prenatal clinic services.
- WHO/AFRO provided technical support to Burkina Faso in monitoring the implementation of an IPT and insecticide-treated net distribution project through the prenatal clinic services in Fada N’Gourma Health District.

IR 3: Strengthen National-Level Capacity to Improve Demand for Appropriate Prevention and Treatment of Malaria

Core-Funded Regional- and Subregional-Level Support

- WHO/AFRO provided technical and financial assistance to RAOPAG to plan a situational analysis and to document the best practices on the prevention and control and to develop a health information system for MIP in some member countries. The technical support will continue during the fifth year of MAC (October 2006–September 2007).

Core-Funded Country-Level Support

- ACCESS, in collaboration with the Burkina Faso NMCP and Division of Family Reproductive Health, adapted MIP training materials for service providers in Burkina Faso and trained 114 service providers from 49 facilities in five districts of one health region in FANC and MIP. Job aids were developed and are being used at all clinical sites. Assessment tools to evaluate provider skills were developed and approximately 50 percent (57/117) of providers have been evaluated in their clinical sites. The remaining providers will be supervised by district teams who were involved in this process. As a result, an estimated population of 3,849,335 will be covered by clinical sites offering improved FANC and MIP services. Through follow-up and evaluation of providers at their clinical sites, supervisors have noticed an improvement in providing FANC and MIP services. An immediate effect is an increase in the use of services and reductions in severe malaria cases compared to the prior reporting period.

IR 4: Strengthen National-Level Linkages to Leverage Resources from Other RBM Partners

Core-Funded Regional- and Subregional-Level Support

- During the MIPWG meeting in Senegal, guidelines on MIP were developed to be used by countries while drafting their GFATM applications.
- WHO/AFRO contributed to strengthening the partnership on the prevention and control of MIP. Technical support was provided to the East, Central and Southern Africa Health Community January 16–20, 2006, in the prevention and control of malaria during the

pregnancy. At the end of the mission, a strategic plan to strengthen the East, Central and Southern Africa health community's capacity in the prevention and control of malaria in pregnancy during 2006–2008 (with a focus on Kenya, Malawi, Mozambique, Tanzania, Uganda, Zambia, and Zimbabwe) was developed. Also, an MIP Policy Brief and a consensus on next steps in the implementation of the strategic plan were developed.

Core-Funded Country-Level Support

- WHO/AFRO evaluated the MAC-supported project for strengthening health systems through scaling up of prenatal care/MIP in Kenya (Kirinyaga district). The main findings of the mission were as follows. The situation analysis, micro-planning, training of trainers, training on supervisory approach, and transfer of resources were developed by the central level. At the district level, the training of health facilities workers, orientation of community-owned resources personnel (CORP), and supervisions were yet to start. The Divisions of Reproductive Health and Malaria Control worked closely to implement the project. The district health management team and the community, especially the CORPs and community-based organization were quite involved. The public health team played an important role in the implementation of this project (CORPs trainings and mobilization; technical assistance for information, education, and communication topics description; report writing). The training manuals and job aids were available in the health facilities. The situational analysis has been done but did not cover all components of Kirinyaga project. Data collection at the central and district levels required improvement. The CORPs need help to organize their practices by topics (MIP, FANC, for example).

CHALLENGES

Although CDC has funds to support a technical adviser to the Kenya Division of Malaria Control for one year, the decision to hire someone was postponed until a stable funding source can be located. The RAOPAG network is lacking the funding necessary to support key positions, namely the technical adviser, that are critical to the network's ability to become fully functional. MAC partners are developing a plan to support the secretariat, but are limited in their ability to staff the secretariat and provide ongoing financial support for secretariat functioning. The partners are concerned about the sustainability of subregional networks with the end of MAC financial support. CDC and other MAC partners have encouraged the various networks to leverage support from partner countries and other donors.

Without in-country personnel or infrastructure, CDC is still limited by lack of mechanisms to support activities in Madagascar. However, CDC continues to work with other MAC partners to provide technical support for the development of a functional integrated pharmacovigilance system.

Other challenges at the country level concern weaknesses in the implementation of MIP strategies; weakness in the M&E system, specifically MIP indicators and resistance of *Plasmodium falciparum* to SP without any replacement drug for MIP. Given these challenges, MAC partners and countries will continue to work closely on these issues.

