



## The Amazon Malaria Initiative: Antimalarial Medicine Access and Use

### HIGHLIGHTS OF AMI PROGRESS IN ANTIMALARIAL MEDICINE ACCESS AND USE

- Improved policies for antimalarial medicine dispensation and use.
- Sensitized decisionmakers to the role of good pharmaceutical management in reaching policy goals.
- Standardized procedures for medicine management and consumables supply for malaria diagnosis and treatment.
- Provided technical assistance (TA) to AMI countries in antimalarial medicine pharmaceutical management, including prescribing, dispensing, and storage practices, and treatment adherence.

### OVERVIEW: ANTIMALARIAL MEDICINE ACCESS AND USE

Malaria is a treatable, curable disease, when patients receive the appropriate diagnosis and effective medications in time, and adhere to treatment instructions. To ensure appropriate use, treatments must be prescribed and used according to standard guidelines. How medicines are procured, stored, and dispensed has a profound effect on malaria treatment and control.

Although this disease remains a significant public health problem in the Amazon region, the number of cases and deaths from malaria has declined considerably since the inception of the Amazon Malaria Initiative (AMI) in 2001.<sup>1</sup> AMI is a health partnership among seven countries: Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, and Suriname; and six international technical partners. One of AMI's accomplishments has been to expand access to effective antimalarial medicines throughout the region. In collaboration with national malaria control programs (NMCPs), AMI international partners have systematically intervened at each step of the pharmaceutical management cycle (Figure 1) to institutionalize best practices in partner countries.

### THE AMI APPROACH TO ANTIMALARIAL MEDICINE ACCESS AND USE

AMI technical partners: (i) address product quality issues by ensuring that the appropriate stakeholders can ensure and evaluate the quality of antimalarial medicines at the time of registration, procurement, and throughout the supply chain; (ii) provide TA related to overall management support for

antimalarial medicines and supplies, including pharmaceutical system design and human and institutional capacity building; and (iii) facilitate activities in all AMI countries through experts in the area of health policy and local contacts with national technicians and health authorities. Through this comprehensive approach (Figure 2), AMI technical partners have worked with national counterparts in AMI countries to conduct assessments identifying issues affecting the access to and use of quality-assured antimalarials. Based on these assessments, AMI partners supported regional and national activities in participating countries. AMI, in collaboration with NMCPs, also works to improve antimalarial purchasing and distribution processes, and make improvements in policies for dispensation and use.

### AMI GOALS AND PRIORITIES

#### Goals

1. Ensure malaria control programs incorporate selected best practices.
2. Improve malaria control at the sub-regional level.
3. Contribute to decreased malaria morbidity and mortality.

#### Priorities

Provide effective malaria control and treatment by:

- a. Assessing efficacy of currently used medicines and suitable replacements;
- b. Choosing and implementing new treatment policies;
- c. Improving diagnostic quality assurance and quality control;
- d. Expanding access to diagnostic tests and good quality antimalarial medicines;
- e. Strengthening vector surveillance and control; and
- f. Disseminating information.

<sup>1</sup> Pan American Health Organization. 2010. Statistics and Maps. *Interactive Malaria Statistics*. [http://new.paho.org/hq/index.php?option=com\\_content&task=view&id=2632&Itemid=2130](http://new.paho.org/hq/index.php?option=com_content&task=view&id=2632&Itemid=2130) (accessed June 7, 2010).

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## AMI INVOLVEMENT IN ANTIMALARIAL MEDICINE ACCESS AND USE

**Progress:** Work conducted by AMI partners has improved antimalarial procurement, supply chain management, and dispensing and prescribing practices; as a result, all partner countries have improved the availability of antimalarial medicines in health facilities and improved patient adherence to treatment regimens. For example, no major stock-outs of the most consumed products have occurred since the introduction of artemisinin-based combination therapy. Artemisinin derivatives are a new class of antimalarial medicines that are now combined with other antimalarials and are replacing traditional monotherapies (chloroquine, sulfadoxine-pyrimethamine, and mefloquine), which susceptibility tests showed, in most of the cases, had become inefficient in treating *Plasmodium falciparum* malaria due to development of resistance.

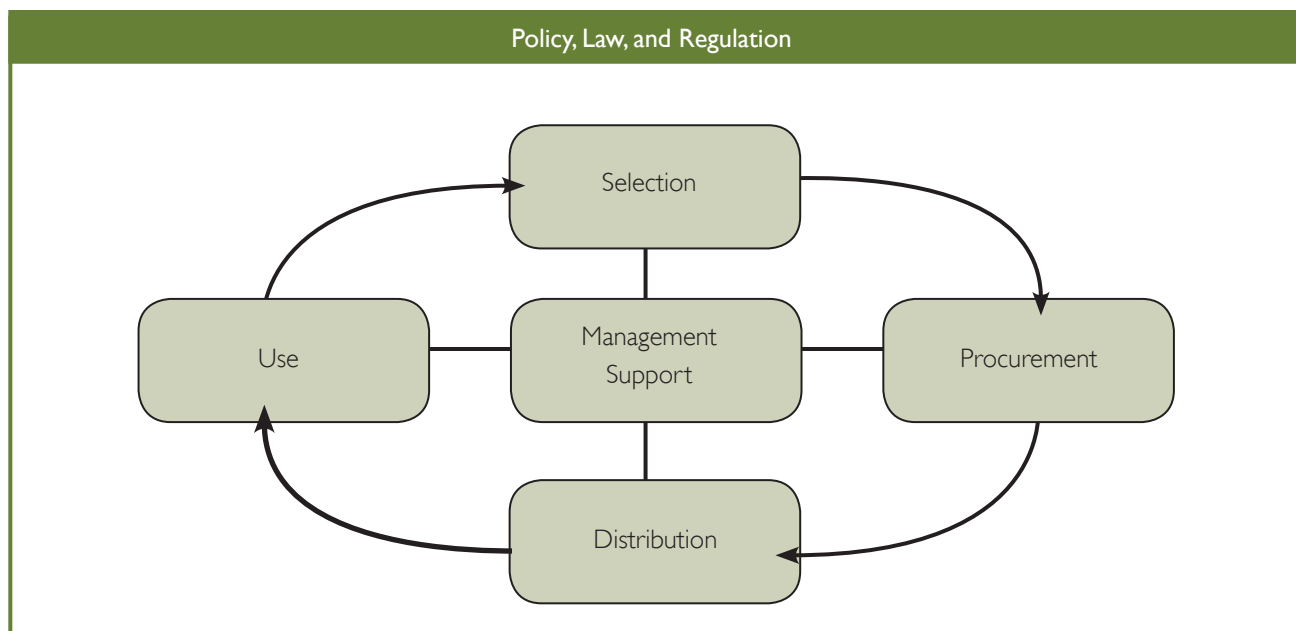
**Specific activities:** To confront problems shared among Amazon countries, AMI has supported regional workshops to (i) improve antimalarial procurement and supply chain management systems and (ii) improve rational use strategies. Other activities were:

One of AMI's most significant achievements has been in supporting partner countries as they changed national health policies to use these new medicines.

- Provided technical support to strengthen the pharmaceutical management cycle at the NMCPs with the goal of institutionalizing best practices to improve access to and use of antimalarial medicines.
  - Institutionalization of procedures for the management of national antimalarial medicines in five countries (Brazil, Bolivia, Colombia, Guyana, and Ecuador).
  - Institutionalization of the instrument and guidelines on supervisory practices of supply chain management at the national level in four countries (Bolivia, Brazil, Colombia, and Guyana).
- Introduced a new tool, Management Sciences for Health's Pharmaceutical Management for Malaria Assessment, in a July 2005 workshop, which has facilitated the monitoring of antimalarial medicines availability and use, and the assessment of progress in the implementation of practices to improve pharmaceutical management.
- Contributed to the development of methodologies and guidelines for complementary studies on the availability and consumption of medicines, adherence to treatment, accurate assessment of needs of antimalarial medicines, and other laboratory supplies as a prerequisite to the acquisition and distribution processes.
  - Conducted a study on the laboratory supplies in five countries (Bolivia, Colombia, Ecuador, Guyana, and Peru). TA was provided to those countries that requested it.
  - Conducted a study of medicine supply in situations of low incidence of malaria. Results showed that countries are applying the same strategies to control malaria in areas of high and low incidence; that there is no strategy for supply distribution that considers areas of low transmission; that there is no strategy for pharmaceutical quality control of low turnover medicines; and, that there are different therapeutic schemes for low incidence malaria in different countries.
- Supported AMI countries in the implementation of specific interventions that address the most critical problems in pharmaceutical management. Specific direct TA activities included:
  - Improved prescribing practices, dispensing, and adherence to treatment in Brazil. As a result of this TA effort, the Ministry of Health has initiated the introduction of (i) illustrated prescriptions and (ii) checklists used by prescribers in the health system.
  - Improved storage practices in Ecuador and Peru.
  - Prepared illustrated materials for monitoring storage best practices in Bolivia.
  - Implemented studies on patient adherence to treatment to identify gaps in programs to control problems in prescribing and dispensing.
  - Improved supply and use policies of antimalarial medicines in Brazil, Colombia, Ecuador, Guyana, and Suriname.

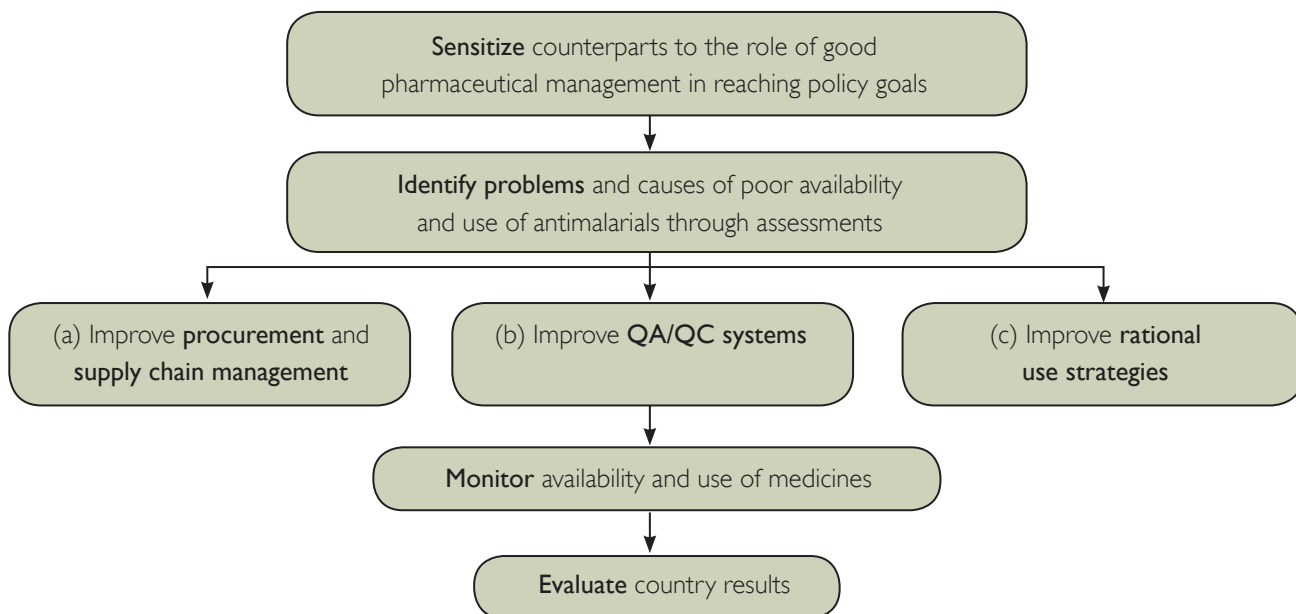
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**FIGURE 1. PHARMACEUTICAL MANAGEMENT FRAMEWORK**



Management Sciences for Health. 2008. Strengthening Pharmaceutical Systems. *Policies and Regulations*. <http://www.msh.org/projects/sps/Pharmaceutical-Management/Policies-and-Regulations.cfm> (accessed June 7, 2010).

**FIGURE 2. THE AMI APPROACH TO IMPROVE ACCESS TO AND USE OF QUALITY-ASSURED ANTIMALARIAL MEDICINES AND SUPPLIES**



U.S. Agency for International Development, Pan American Health Organization, Centers for Disease Control and Prevention, Links Media, Management Sciences for Health, RTI International, and U.S. Pharmacopeia. *The Amazon Malaria Initiative: Goals and Accomplishments (October 2001-May 2009)*. 2010. Submitted to the U.S. Agency for International Development. Gaithersburg, MD: Links Media.

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