

LESSONS LEARNED:

Technical assistance for the supply of antimalarial medicines in Latin America and the Caribbean

INTRODUCTION

The Amazon Malaria Initiative (AMI) is an association of technical assistance organizations and Latin American and Caribbean countries, financed by the United States Agency for International Development (USAID) that supports the control and eventual elimination of malaria in the region. Since 2002, several projects implemented by Management Sciences for Health (MSH)¹ have been part of the initiative, playing an important role in the introduction of medicines combined with artemisinin after the documentation of *P. falciparum* resistance to chloroquine.

The introduction of this new therapeutic and other epidemic control strategies have contributed to a reduction of close to 67% in the incidence of the disease since 2000. At the beginning of 2016, 18 countries in the region had declared their intention to implement strategies for the elimination of the disease.²

As a member of the AMI, the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Project has provided technical assistance to the countries of the Americas since 2011. In the described context, SIAPS' methodological approach considered the following factors:

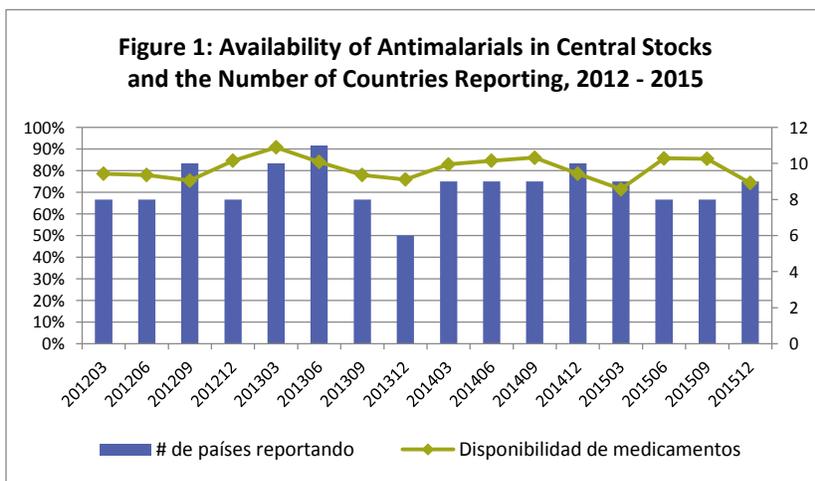
- Although the incidence of malaria has been reduced significantly in the region, there are countries and areas within countries where the incidence remains high. The technical assistance provided needed to simultaneously consider areas of high and low incidence.
- Given the disparity in the epidemiological situation and the operative conditions of malaria control programs, SIAPS needed to support, in a simultaneous manner, interventions of regional, national, and local scope.
- The strategies and tools used to ensure a continuous supply of medicines in countries and areas of low malaria incidence are different from those for areas of high incidence, but there is no documented experience in their application and results. SIAPS had to support the design, implementation, and evaluation of both approaches.

Despite the implicit complexities in supplying medicines in low-incidence situations, this approach has allowed the maintenance of a continuous supply of antimalarials. The availability in the central stores has been maintained above 80% since 2012.³ Furthermore, the regional information system and special studies that have been carried out⁴ have allowed the identification of problems that still persist and their potential solutions.

The four lessons presented in the following sections can be useful to public servants and consultants from aid agencies that support the management of antimalarial medicines, particularly in the framework of regional strategies for the elimination of malaria.

1. ORGANIZE A REGIONAL MONITORING SYSTEM FOR CONSUMPTION AND STOCKS

In 2009, the project that preceded SIAPS identified important differences in the stocks of antimalarials in the countries of the region; overstocks in countries with significant drops in incidence; and stock-outs in those with outbreaks or problems with programming and purchasing. A regional information system for stocks and consumption was then conceived.⁵ To facilitate the collection and organization of information for decision making, the system was based on one indicator and two points of collection: the availability in months (in accordance with average monthly consumption) in central, and if possible, regional stores. The information, provided by the countries quarterly (between eight and ten countries on average), has since been put in a bulletin that is distributed to decision makers in all the countries of the region. Since 2013, the Pan American Health Organization Strategic Fund (PAHO SF) is coordinating this activity.



The collection and analysis of this information in each country and the subsequent distribution of the regional bulletin had contributed to the acceleration of national purchases, the redistribution of stocks within the countries, the promotion of exchanges and donations between countries (2.4 million units, valued at USD 95,000 up until the end of 2015), and the design of regional strategies for supply improvement.

2. DOCUMENT THE CAUSES OF PROBLEMS AND STOCK-OUTS

The consolidated regional information on consumption and stocks of antimalarials and studies conducted by SIAPS⁶ documented stock-outs in the central and regional stores of various countries. In the majority the cases, the stock-outs did not reach the health facilities, but the risk was, and continues to be, high in several countries. The main causes were:

- Needs estimates and purchase programming that did not consider the wait times (between requests and deliveries) of international agencies; underreporting by epidemiological information systems; outbreaks; or the supply of stocks for health facilities with little or no incidence but with high risk of reintroduction.
- The lack of local suppliers interested in participating in national public tendering for the sale of small quantities of medicines at a low cost per unit.

The documentation of these problems has allowed the design and implementation of assistance interventions on a regional, national, and local scale⁷.



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3. ORGANIZE REGIONAL-SCALE INTERVENTIONS WITH OTHER AID AGENCIES

The coordination between members of the AMI has played an essential role, first, for the organization of a regional information system for consumption and stocks of antimalarials and, second, for the organization of a system of pooled procurement of antimalarials through the PAHO SF. Very early on, SIAPS documented problems in the acquisitions made through the PAHO SF which derived principally from management problems in the Ministries of Health and Finance and limited financial availability to make advanced payments for the purchases.⁸ In recent years, the PAHO SF has adjusted its procedures and has made loans available to the countries in case they face administrative problems with advanced payment.

The reduced required quantity of second-line medicines and medicines for severe cases makes domestic purchases impossible. In a meeting held in Cartagena, Colombia, in April of 2010, the participating countries agreed that the best strategy for their provision would be donations through the PAHO SF with resources from USAID/AMI.⁹

These interventions of regional scope, which demanded coordinated action from two members of the AMI (SIAPS and PAHO) have been effective for avoiding stock-outs of antimalarials.

4. ORGANIZE INTERVENTIONS OF NATIONAL AND LOCAL SCOPE WITH COUNTERPARTS IN THE COUNTRIES

The previously described regional interventions allowed the sharing of information between countries, promoted the transfer of medicines from stores with overstocks to countries or localities facing potential stock-outs, and resolved the problems derived from a lack of domestic suppliers for medicines of low-volume purchase. Nevertheless, the supplying of medicines to health facilities required interventions of national and local scope. At the national level, SIAPS has supported:

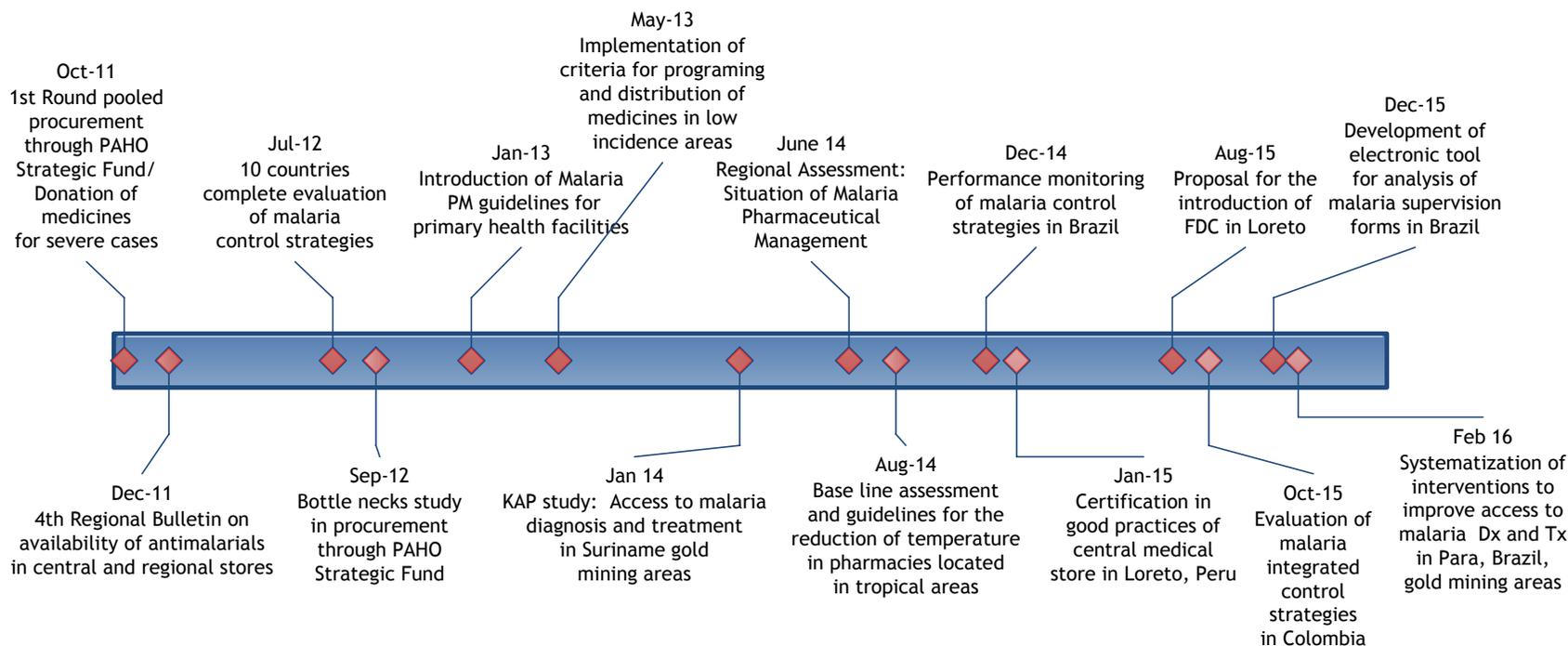
- The establishment of criteria for the programming and distribution of antimalarials in areas of low or zero incidence.¹⁰
- The development of standardized tools for the requisition and dispatch of antimalarials and for the supervision of diagnosis and treatment health posts.^{11,12}

At the local level SIAPS has supported:

- The design and implementation of guidelines for the supply of medicines at the primary care level.^{13,14}
- The design of guidelines for improving the storage conditions in health facilities.¹⁵
- Studies on the situation regarding supplies of antimalarials in underserved populations that live or work in areas that are geographically difficult to access.^{16,17}

Although occasional stock-outs have been recorded in the central stores, the described interventions have not allowed the effects to extend to the health facilities and, consequently, to the patients. The challenge for the coming years is to institutionalize the use of the previously described tools so that timely treatment becomes the cornerstone of the elimination of malaria in the region.

Figure 2: Activities supported by SIAPS as part of the Amazon Malaria Initiative



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REFERENCES

¹ Rational Pharmaceutical Management Plus (RPM Plus); Strengthening Pharmaceutical Systems (SPS); and Systems for Improved Access to Pharmaceuticals and Services (SIAPS)

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³ Regional Bulletin for the Availability of Antimalarial Medicines (Boletín Regional de Monitoreo de la Disponibilidad de Medicamentos Antimaláricos), Issue 1.

⁴ <http://siapsprogram.org/publication/informe-tecnico-evaluacion-de-la-situacion-de-la-gestion-del-suministro-de-medicamentos-antimalaricos-en-los-paises-miembros-de-la-iniciativa-para-el-control-de-la-malaria-en-la-cuenca-del-amazonas/>

⁵ http://www.usaidami.org/extras/medicine_monitoring_system_2012_eng.pdf

⁶ <http://apps.who.int/medicinedocs/en/d/Js21920en/>

⁷ <http://siapsprogram.org/publication/altview/technical-assistance-in-managing-the-supply-of-antimalarials-in-low-incidence-regions/Spanish/>

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⁹ http://siapsprogram.org/wp-content/uploads/2012/11/Informe-Tecnico_Seleccion-Programacion-y-adquisicion-de-antimalaricos_final.pdf

¹⁰ <http://siapsprogram.org/publication/criteria-for-planning-and-distributing-medicines-in-areas-with-a-low-incidence-of-malaria/>

¹¹ <http://siapsprogram.org/publication/evaluacion-de-la-implementacion-del-instrumento-de-requerimiento-y-despacho-de-antimalaricos-colombia/>

¹² <http://apps.who.int/medicinedocs/documents/s21923es/s21923es.pdf>

¹³ <http://siapsprogram.org/2016/04/19/community-volunteers-help-to-fight-malaria-in-guatemala/>

¹⁴ <http://www.usaidami.org/extras/SIAPSdownload.pdf>

¹⁵ <http://apps.who.int/medicinedocs/en/m/abstract/Js21536es/> ; <http://siapsprogram.org/publication/tips-for-lowering-pharmacy-temperatures-to-maintain-good-medicine-quality/>

¹⁶ <http://siapsprogram.org/publication/proposta-de-intervencao-para-melhorar-o-acesso-ao-diagnostico-e-ao-tratamento-de-malaria-em-areas-de-garimpo-no-estado-do-para-brasil/>

¹⁷ <http://www.usaidami.org/extras/policyBriefAmazonBasinCounties.pdf>



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