Success Story
Improving the Availability of Antimalarials in Ecuador with a Drug Information System

Background
The impact of public health interventions that use medicines and medical supplies is affected by periodic shortages or total losses resulting from decisions made without the benefit of information or based on incomplete or incorrect information regarding the supply of these products. In 2009, the malaria program’s central warehouse experienced a shortage of some medicines along with excess supplies of others, which expired before ever being used.

The malaria program includes 11 administrative zones that operate about 297 malaria evaluation and treatment posts. From its base in the city of Guayaquil, the central warehouse distributes medicines, medical supplies, and reagents to all 11 zones, which in turn distribute these products to all evaluation and treatment posts.

Since early 2009, the Strengthening Pharmaceutical Systems (SPS) Program of Management Sciences for Health, operating within the framework of the Amazon Malaria Initiative, has provided technical assistance to Ecuador’s malaria program for the twice-yearly process of gathering indicators on the supply status of antimalarial medicines in the central warehouse. These indicators were then shared with program directors to facilitate decision making. This technical assistance required a visit to Guayaquil by a consultant every six months.

Intervention
In a meeting held in Quito in March 2010 as part of the process for integrating the malaria program into Ecuador’s Integrated System for Managing Drugs and Supplies (Sistema Único de Gestión de Medicamentos e Insumos; SUGMI), central government authorities, representatives from the malaria program, and SPS consultants reached an agreement to develop and implement a procedure for periodically reporting information on inventories and movement of medicines in the central warehouse and in the 11 stores located in the administrative zones. The procedure was developed and reviewed with technical staff from SUGMI and the malaria program, and implementation was scheduled to begin in July 2010. During the initial three months of implementation, SPS provided support in the area of data consolidation and analysis. Subsequently, the malaria program assumed full responsibility for this task.

The procedure uses SUGMI’s all-inclusive form, establishes deadlines and routines, and identifies the individuals responsible for data recording, reporting, consolidation, and analysis. An easy-to-use data analysis spreadsheet was designed that makes it possible to generate indicators of availability in the aggregate as well as in each warehouse.
Results

The procedure implemented makes available to the malaria program strategic information from the central warehouse and the 11 administrative zones with which to (a) manage procurement (both purchases and donations), (b) project risks of stock-outs and medicine expiry, and (c) distribute and redistribute medicines and supplies at a time when extremely detailed inventory management is required because of the substantial decrease in the number of malaria cases in Ecuador. The figure shows the improvement in medicine availability following implementation of this information system, with this indicator taking on increased significance in the current context of low incidence of malaria.

Currently, this system, in addition to enhancing decision making at the national level, supplies data to the regional system for monitoring stocks of antimalarial medicines that is currently receiving support from the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) program.