Stock-outs of antiretrovirals (ARVs) have been a persistent problem in the Dominican Republic (DR), precipitated by insufficient funding and a lack of an efficient management information system to provide the necessary data for adequate forecasting and supply planning. SIAPS provided the Government of DR with technical assistance for the establishment of an Integrated Management System for Pharmaceuticals and Medical Supplies (Sistema Único de Gestión de Medicamentos e Insumos; SUGEMI) and supported the use of data generated from this system to analyze needs and to identify the root causes for existing stock-outs. Initially, the system identified a financial gap of more than $2.5 million to cover adult HIV medicines needs, despite contributions from the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund).

The bulletin provides information on stock on hand, including the number of units in stock as well as available months of stock for ARVs, TB medicines, and other tracer medicines. The UNGM then uses this data to redistribute medicines, make purchasing adjustments, and analyze national medicine consumption.

SUGEMI is an information system that is fully aligned with the country’s health sector reform process, compatible with the decentralized health sector, and designed to coordinate information across different vertical disease programs. These features were essential to promote the long-term sustainability and local ownership of the system.
In 2012, using data from SUGEMI, SIAPS collaborated with key partners (the Global Fund Principal Recipient, the National Medicines Management Team, the General Directorate for Control of Sexually Transmitted Infections and AIDS (DIGECITSS) and the National Council on HIV and AIDS) to carry out the first national quantification and costing exercise for the purchase of adult ARVs for 2013.

This exercise revealed that the number of adult patients on ARV treatment had increased at a rate of 33.4% or 2,958 cases per year between 2009 and 2012, while funding for ARVs during the same period decreased by an average of 21.7% (USD 965,382). The exercise also estimated that the country would require $6.1 million for the procurement of ARVs in 2013. While just over half (59%) of this funding could be provided by the Global Fund, a funding gap of $2.5 million was identified which could leave patients without the necessary ARVs to continue or start treatment.

After additional analysis indicated that ARV prices varied in price depending on source, SIAPS recognized the potential for cost reduction if ARVs were procured through the Voluntary Pooled Procurement/Partnership for Supply Chain Management (VPP/PFSCM) mechanism. Using this more competitive pricing, SIAPS determined that the overall cost for ARVs could be reduced from $6.1 million to $5.2 million. Additionally, SIAPS helped the MOH identify and recover a deposit from a former supplier which, combined with additional cost-saving measures, was enough to not only close the funding gap but resulted in a funding surplus in the amount of $775,000.

RESULTS

Accurate, reliable data help ensure funding for and availability of ARVs

Supply chain analytics, based on the SUGEMI information system, helped create new solutions and allowed the Ministry of Health (MoH) to mobilize enough resources to cover the procurement funding gap for adult ARVs. Specifically, SIAPS was able to help MoH:

- Bridge the funding gap by identifying a new international provider for ARVs (i.e., VPP), saving more than $910,000
- Recover a $500,000 deposit held by the previous provider
- Foster political will and support by developing and disseminating informational policy briefs
- Successfully develop and allocate $1.9 million for the procurement of ARVs in 2013
- Generate a financial surplus of more than $775,000

The availability of adult ARVs in the DR has significantly improved. Figure 1 further demonstrates the increased availability of ARVs at the central and health-facility levels.

Figure 1. Percentage of Availability of ARVs for Adults, October 2012 and June 2014*

* measured as a percentage of adult ARV formulations available at the central warehouse and health facilities compared to ARV formulations that should be available, according to Standard Treatment Guidelines
SUGEMI has enabled consistent reporting and data quality checks, improved medicine availability at health facilities, and addressed health financing issues in procurement. With the money saved, procurement of diagnostic supplies and other materials to cope with the increased number of patients is now more feasible. Since March 2013, the consumption and stock on hand indicators in SUGEMI have been complemented by other performance monitoring indicators (such as degree of consistency between requisition and dispatches, percentage of units reporting on a timely basis, etc.). SUGEMI has proved to be a feasible and sustainable solution to improve the availability and quality of much-needed patient and supply chain data to allow the MoH to continuously improve the availability of pharmaceutical products to improve health outcomes.