

Logistics Brief

Ethiopia: Collaboration Builds Sustainable Healthcare Supply Chain, Boosting Health Outcomes



Berhan Teklehaimanot, SCMS.

Regional Health Bureau, SCMS, and USAID | DELIVER PROJECT staff conduct integrated supportive supervision at Addis Ketema health center in Dire Dawa.

In 2013, Ethiopia achieved Millennium Development Goal IV by reducing under-5 child mortality by two-thirds from 1990 to 2012. By ensuring a steady supply of medicines and health supplies, where and when they were needed, the supply chain played a vital role in these health improvements.

MARCH 2014

This publication was produced for review by the U.S. Agency for International Development. It was prepared by the Supply Chain Management System and the USAID | DELIVER PROJECT, Task Order 4.

In the Addis Ketema health center—located in Dire Dawa, Ethiopia’s second largest city—patients leave satisfied after receiving their prescribed medicine, at an affordable price, from the pharmacy store. According to Store Manager Mesay Alemu, this was not always the case: for many years, basic essential medicines were often out of stock—a scenario familiar to store managers across the country.

Until just a few years ago, Ethiopia’s health system struggled with an inadequate supply of quality and affordable essential pharmaceuticals, poor storage conditions, and weak stock management, resulting in high levels of waste and stockouts. In the absence of a strong, unified healthcare supply chain, various health programs—including family planning, HIV and AIDS, tuberculosis, and malaria—established their own logistics systems to improve the flow of supplies. While individual programs helped in the short term, gaps remained.

To overcome these system-wide supply challenges, the Federal Ministry of Health (FMOH) and Pharmaceutical Fund and Supply Agency (PFSA), supported by the stakeholders in the healthcare supply chain, started to develop an integrated supply chain; it would include all health program commodities, and would connect all levels of the supply chain with accurate and timely data for decisionmaking. The new system became known as the Integrated Pharmaceutical Logistics System (IPLS), a single integrated supply chain, implemented by the PFSA.

To support PFSA’s pursuit of an integrated supply chain, the U.S. Agency for International Development (USAID) mobilized two supply chain projects that were already supporting health programs in Ethiopia: The USAID | DELIVER PROJECT



was working on family planning and Supply Chain Management System (SCMS) was supporting HIV and AIDS. The two projects had a new, shared goal: commodity security for all essential medicines in Ethiopia through system strengthening.

To prepare health facilities for implementation of the IPLS, PFSA—in partnership with the two projects—developed a standard training curriculum for the new process. Through trainings-of-trainers (TOTs), 200 technical staff from PFSA, Regional Health Bureaus (RHBS), and other logistics partners learned how to deliver the IPLS training; to-date, nearly 10,000 health professionals, from all nine regions and two city administrations, have been trained by PFSA and its partners. To reinforce the training, field staff from both projects and government partners conducted joint supportive supervision visits to 1,200 facilities; the projects printed and distributed essential reference materials, including standard operating procedures (SOPs) and standard recording and reporting forms.

The collaborative efforts have already brought significant improvements to the supply chain; data from routine supportive supervision indicates that the percentage of facilities using the IPLS standardized reporting and requisition form—a critical supply chain performance indicator—has reached more than 92 percent.



At Yejube health center, new shelves and warehouse equipment were installed, and the storeroom was reorganized.

Since the inception of IPLS in 2009, the two projects have collaborated closely and leveraged each other's strengths to improve commodity reporting and distribution. So far, more than 2,300 health facilities have fully implemented IPLS. PFSA, in partnership with both SCMS and the USAID | DELIVER PROJECT, has designed a range of strategies and interventions, including developing SOPs; expanding the logistics capacity of FMOH and PFSA staff; improving infrastructure in facilities and warehouses; providing monitoring and evaluation, training, and supportive supervision in facilities; and implementing electronic logistics management information systems.

SOPs and standard forms provide a basis for collecting and managing data in automated systems. In 2009, the USAID | DELIVER PROJECT introduced a computerized inventory management system for health facilities—the Health Commodity Management Information System (HCMIS)—which is now being used by more than 400 health facilities to manage their supplies. By 2012, HCMIS software had been enhanced by both SCMS and the USAID | DELIVER PROJECT with features for warehouse management; it was implemented in all PFSA hubs and center warehouses for inventory management. Technical staff from both projects supported HCMIS implementation at PFSA hubs and health facilities.

In 2008, to be able to collect and aggregate data and forecast supply quantities for procurement, SCMS began developing what has become the web-based Pharmaceutical Logistics Information Tracking System (PLITS). Currently deployed in 43 facilities, PLITS aggregates data from 11 hubs and 1,132 antiretroviral therapy sites; it enables managers to quantify the amount of resupply needed.

The two projects are working together to interface the HCMIS and PLITS systems via the Pharmaceutical Information Management System (PIMS), developed for Ethiopia's pharmaceutical supply chain. This system will enable supply orders and stock-level information to be exchanged electronically; and it will integrate commodity logistics information from various programs, including family planning, antiretroviral



At the Tulu Bolo hospital, the store manager is using the HCMIS to check stock status and generate reports for decisionmaking.

therapy (ART), tuberculosis, malaria, and leprosy. The system will also automate the paper-based IPLS, enabling health facilities to exchange logistics data electronically, thereby improving the timeliness and accuracy of the data.

To complement the implementation of IPLS toward an integrated supply chain, the two projects worked with PFSA to improve warehouses and facility stores. In the past three years, the USAID | DELIVER PROJECT upgraded 409 health facility stores with standardized shelves and warehouse equipment, while SCMS supported PFSA with racking and equipment for 10 newly constructed warehouses. SCMS also donated 79 trucks to increase the distribution capacity and helped develop 26 storage and distribution SOPs, which will improve system efficiency when implemented in all warehouses. These improvements, as well as training for more than 35 staff in warehouse operations management, have provided PFSA with a modern warehouse and distribution operations environment.



SCMS



Fiseha Tassew, SCMS

Modern warehouses and fleet contributed to the progress toward an integrated supply chain.

Starting with system design, the IPLS effort incorporated strategies and approaches to ensure sustainability and local ownership. Under the leadership of PFSA and the RHBs, technical working groups and other forums were established to coordinate supply chain activities and to implement and monitor activities feeding into the IPLS. The groups solved coordination challenges and engaged staff at the PFSA hub; including regional, zonal, and woreda levels.

As facilities adapt to the IPLS and performance reaches an acceptable level, they graduate from routine supportive supervision. Hub-based teams assess the readiness of the facility to ensure that they can continue to implement the system with minimal support from the projects. This graduation strategy enables the projects to shift their support to newly opened facilities. By the end of September 2014, 300 facilities are expected to graduate.

As supply chain management has improved, so have Ethiopia's health outcomes. According to a national survey conducted by UNFPA in 2012, the availability of modern contraceptives at health facilities was more than 97 percent at the time of visit. By

comparison, the stockout rates in 2006—prior to IPLS implementation—were 58 percent for injectables, 30 percent for pills, and 60 percent for implants. A site-level survey of 42 facilities, conducted in 2013, showed that 95 percent of antiretroviral (ARV) drugs were available. In less than a decade, the country's contraceptive prevalence rate (CPR) has almost doubled—from 15 percent in 2005 to 29 percent in 2011. Close to 300,000 HIV-positive people who need ARV drugs are currently in treatment, compared to 24,400 in 2006, before the implementation of IPLS.

The impact extends beyond family planning and HIV and AIDS programs. Ethiopia continues to show marked improvement in most health outcomes. In 2013, Ethiopia achieved Millennium Development Goal IV by reducing under-5 child mortality by two-thirds from 1990 to 2012. By ensuring a steady supply of medicines and health supplies, where and when they were needed, the supply chain played a vital role in these health improvements.

At Addis Ketema health center, the availability of essential medicines has significantly improved, and wastage has been reduced to less than 2 percent. An assessment done by the Dire Dawa city administration showed a reduction in the expiry rate for the region from 4.4 percent in 2009/2010 to 1 percent in 2011/2012. Patients at the health center are pleased that medicines are available to safeguard their health. According to Ahmedsam Abdella, curative and rehabilitative core process owner at Dire Dawa RHB, this could not have been achieved without IPLS.

For the FMOH, PFSA, and its partners, the long-term goal in Ethiopia is clear: build a strong healthcare supply chain, which can be sustained locally, to provide a continuous flow of lifesaving health products for the people of Ethiopia. Commitment, collaboration, and coordination among IPLS partners will continue to be the way forward toward that common goal.

The authors' views expressed in this publication do not necessarily reflect the views of the U.S. Agency for International Development or the United States Government.

Supply Chain Management System

Suzanne Hoza, Country Director for Ethiopia

Partnership for Supply Chain Management

1616 Fort Myer Drive, 12th Floor

Arlington, VA 22209-3100 USA

Phone: +1.571.227.8600

Fax: +1.571.227.8601

Email: PFSCM@pfscm.org

Internet: scms.pfscm.org/scms

USAID | DELIVER PROJECT

John Snow, Inc.

1616 Fort Myer Drive, 16th Floor

Arlington, VA 22209 USA

Phone: 703-528-7474

Fax: 703-528-7480

Email: askdeliver@jsi.com

Internet: deliver.jsi.com