

Expanding Treatment by Saving Costs

THREE INTEGRATED SUPPLY CHAIN STRATEGIES FOR DOING MORE WITH EXISTING FUNDS

After rapid funding increases, many HIV/AIDS programs are now facing a leveling off of available resources. To support patients currently on treatment and add those in need, programs must find ways to do more with existing funds.

Working in partnership with funders and clients, SCMS is establishing integrated supply chains that link multiple procurement functions and coordinate across stakeholders to lower costs for commodities, shipping, warehousing and distribution. Every dollar saved in an integrated supply chain can be redirected to prevention, care and treatment for more people who need it.

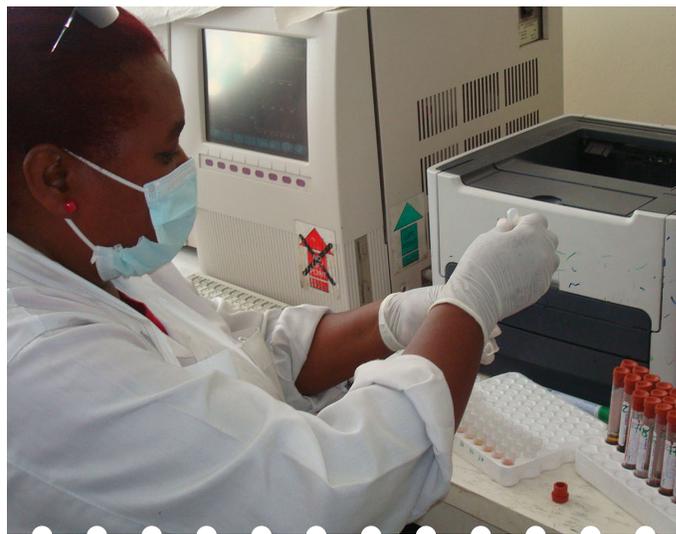
Standardize laboratory commodities to increase efficiency

A single laboratory supporting HIV/AIDS programs may require hundreds of distinct items to carry out its work. If multiple laboratories use different items to do the same job, or use varying procedures to conduct the same test, procuring commodities for them can become an extremely complicated and costly process. This is exactly the situation many public health programs face.

In early 2008, 130 experts and policymakers from 31 countries gathered in Maputo, Mozambique, for the Consensus Meeting on Clinical Laboratory Testing Harmonization and

Standardization. Delegates drafted the Maputo Declaration on Strengthening of Laboratory Systems, which outlines a number of objectives, including “to review and agree on a list of supplies and tests” and “to develop a consensus to guide standardization of laboratory equipment” at each level of the laboratory network.

By reducing the number and variety of commodities, standardization saves money by allowing the purchase of commodities in bulk and reducing the workload needed



A laboratory in Ethiopia.

to procure products. Having a shorter list of commodities also helps track inventory, reduce storage space required, simplify distribution and reduce the risk of both waste and costly emergency orders.

Consistent with the Maputo Declaration, SCMS is working with PEPFAR-supported countries to harmonize test menus, test techniques, operating procedures and laboratory equipment to improve the efficiency and effectiveness of HIV/AIDS treatment programs.

In Ethiopia, lack of harmonization contributed to a weak laboratory logistics system, resulting in frequent stockouts. In March 2007, SCMS led the design of a standardized laboratory logistics system. SCMS then helped standardize the lists of commodities at Ethiopia's Pharmaceutical Fund and Supply Agency's hubs, retaining only commonly used products.

Since May 2007, no stockouts have occurred for HIV/AIDS laboratory monitoring tests, and the number of costly emergency orders has dropped dramatically. Less wastage of expired or unneeded commodities also means money saved. Standardization also facilitated easier service and maintenance by reducing the number and type of equipment in use.

In Zambia, SCMS supported the Ministry of Health in September 2006 in standardizing test menus, testing techniques and equipment for laboratory commodities. This process led to several improvements in the national laboratory system, reducing the number of laboratory commodities by about 80 percent and lowering procurement costs. The stockout rate dropped from about 70 percent in 2007 to 2 percent by the end of 2008, greatly reducing costly emergency orders and improving quality and reliability of service to patients.

In 2008, Zambia established its national Laboratory Commodity Logistics System for HIV/AIDS treatment, which streamlined commodity management and allowed transfer of stocks among facilities to avoid expiration.

In 2008, SCMS also took over responsibility for supplying laboratory reagents and consumables to the PEPFAR-supported laboratory network in Mozambique. To simplify procurement and leverage better pricing, SCMS signed indefinite quantity contracts (IQCs) with a local supplier.

SCMS provides monthly supplies of hematology, biochemistry and CD4 instruments to PEPFAR-supported sites, working from a standardized list of about 100 products. In June 2009, PEPFAR-supported laboratories reported a major achievement for SCMS: no stockouts of reagents or consumables.

Since SCMS took over responsibility for procurement and supply chain management of lab supplies, consumption of commodities has doubled and national coverage has expanded, most notably in rural areas.

In addition to Ethiopia, Mozambique and Zambia, SCMS is working to standardize laboratory commodities in other countries, including Botswana, Côte d'Ivoire and Haiti.

Cost savings in shipping can redirect funds to prevention, care and treatment

One of the simplest ways to reduce costs when procuring high volumes of commodities is to switch the delivery mode from air freight to sea and land freight. This strategy can save over 80 percent in shipping costs. To date, SCMS has saved our clients:

- \$22.5 million for sea shipments (86 percent less than comparable air freight)
- \$1.8 million for land shipments (66 percent less than comparable air freight)

Clients who plan in advance can take advantage of these savings. When countries implement supply plans with long time frames, we can schedule lower-cost transportation. It may take, for example, 45 days longer for shipments to arrive by sea than by air, but the significant cost savings can then be reprogrammed to other uses. Zimbabwe provides a good example. As the political situation stabilized in this country, the PEPFAR program, which supports 40,000 people on treatment, switched from air freight to road shipments of ARVs from SCMS's regional distribution center in South Africa, saving around 60 percent in shipping costs — or potentially \$130,000 per year. Initial savings were used to purchase HIV test kits to make up for the shortage in the national testing program.

With careful planning, any HIV/AIDS program can reassign savings in shipping to treatment, care and prevention.

Efficient warehousing and distribution maximizes the use of resources

A key challenge from the beginning of the PEPFAR program was managing the unprecedented increase in the volume of commodities to support the rapid scale-up of HIV/AIDS programs by strengthening warehousing and distribution systems that were unprepared to handle these increased volumes.

Typical of the problems encountered was warehouses not having inventory management systems that could track stock, so commodities were often wasted due to expiration and overstock. Without proper racking and forklifts, commodities often sat in piles on the floor and were damaged during storage or while being moved. Lack of security resulted in losses due to theft. Without temperature control systems or refrigeration, medicines and other commodities could be rendered useless after being stored or transported at the wrong temperature. And inefficient distribution needlessly wasted valuable resources on fuel and transport.

In places where boxes of expired medicines once clogged facilities, newly trained professionals now manage stock using hand-held devices that read bar codes, automatically sending data to computerized systems that help manage inventory. And health care workers who once had no faith that medicines and supplies would be available when needed at clinics are now placing orders with computerized systems and are confident that they will be received on time.

In Ethiopia, the ARV distribution system was historically a “push” system in which a central authority determined quantities shipped to health centers based on annual distribution plans, an approach that led to overstocks, product expiry, stockouts and emergency orders. SCMS worked with partners to redesign the ARV logistics system into a “pull” system with deliveries defined by local needs, supporting a gradual transition from multitiered distribution to a two-level (warehouse to site) distribution.

Starting in October 2006, the pull system rolled out to 546 sites. The new system helped support a six-fold increase in HIV/AIDS treatment, from 23,000 patients to more than 150,000, and a similar increase in treatment sites from 73 to 480. This type of pull system reduces both wastage and overstocks by allowing treatment sites to order exactly what

they need. Improved procurement planning and streamlining the supply chain has practically eliminated stockouts of ARVs and lab commodities—and costly emergency orders—at the national level.

In Côte d’Ivoire, the introduction of warehouse management software has helped the Ministry of Health increase monthly order throughput from around 470 orders to between 1,350 and 1,800. The time taken for the six-month stock-take decreased from four weeks to one week when conducted in September using the new system.

In Rwanda, the Centrale d’Achat Medicaments Essentiels du Rwanda (CAMERWA) operates the national medical stores and has sole responsibility for procurement, storage and distribution of ARVs. To support CAMERWA in comprehensive restructuring of all warehouse management operations, SCMS provided technical assistance in warehouse best practices, redrafted standard operating procedures and reviewed the existing stock management system. CAMERWA has since reduced the receipt process of drugs into the warehouse from 15 to 5 days, improving inventory control and stock reporting. Time to fulfill orders was reduced by half, lowering overtime costs. New shelving for the warehouse increased storage capacity by 64 percent, improving layout and product mapping. Accuracy of



Improved warehousing in Uganda.

monthly reporting on stock levels and inventory is improving, alerting managers to potential stockouts before they occur.

In Uganda, the Joint Medical Store (JMS), a faith-based organization, is tasked with managing 20 percent of all essential drugs in the country, storing these for NGO-supported Ministry of Health facilities and holding ARVs for several PEPFAR recipients. As JMS grew, so did the need for more storage. JMS temporarily rented additional warehouse space and later built a second building on its property in Kampala. The challenge was to manage stocks most effectively in each building and use the available space most efficiently.

SCMS recommended that JMS use one of its stores for bulk storage and the other primarily for picking and packing of orders. At the bulk warehouse, SCMS helped separate receiving and dispatch areas to improve security and movement between the two warehouses. SCMS also helped install a racking system and add forklifts, maximizing storage space in the bulk warehouse.

A new management information system (MIS) employs radio frequency devices that speed up transactions, offer instant stock-on-hand figures for any product and employ built-in alerts to minimize the likelihood of stockouts. A perpetual inventory system means that the store no longer needs to close for annual inventories. The new MIS directs pickers to specific pallet positions, enforcing first-to-expire, first-out (FEFO) picking to reduce the risk of wastage through expiry.

The new system reduced picking time by up to 30 percent. By addressing its warehousing and MIS issues simultaneously, and by continuously training and motivating staff in best practices, JMS has changed the face of its operations.

SCMS has helped transform warehousing and distribution systems in many PEPFAR-supported countries, including Botswana, Côte d'Ivoire, Ethiopia, Guyana, Haiti, Kenya, Mozambique, Namibia, Rwanda, Tanzania, Uganda and Zimbabwe.

CONTACT

David Jamieson

SCMS

1616 Fort Myer Drive 12th Floor

Arlington, VA 22209

Email address: djamieson@pfscm.org

T. 571.227.8669

ABOUT SCMS

The Supply Chain Management System (SCMS) was established to collaborate with in-country and global partners to ensure a reliable, cost-effective and secure supply of high-quality medicines and health products for HIV/AIDS prevention, care and treatment. SCMS is funded as part of the US President's Emergency Plan for AIDS Relief through the US Agency for International Development. Visit www.scms.pfscm.org or write to scmsinfo@pfscm.org for more information.

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