

entry into the Pharmaceutical Information Portal due to a lack of computers. Inconsistent internet connectivity in some of the districts still poses a big challenge for order submission through the WBOS. A long-term solution is needed to rectify the computer and internet issues to further strengthen the HIV logistics system in the region. With limited storage space, facilities are still struggling to ensure good pharmacy practice for storing supplies. However, pallets and shelves have been provided to some locations to ensure that even with limited storage space, commodities are not stored directly on the floor.

Some areas of logistics management still require improvement, including increasing the capacity of health workers with quantification to be sure that the right amount of drugs is ordered. The project also learned that the recommended buffer stock of supplies (a minimum of two months) should always be maintained to avoid stock out of supplies before new deliveries arrive. When MMSs are better equipped to enter data into the Pharmaceutical Information Portal through the provision of computers and improved internet connectivity, they will be able to make more informed evidence-based decisions. These are essential to ensuring an uninterrupted supply of HIV products to support services in the East Central Region.

The Strengthening Tuberculosis and HIV/AIDS Responses in East Central Uganda (STAR-EC) project worked to increase access, coverage, and use of quality comprehensive TB and HIV/AIDS prevention, care, and treatment services. STAR-EC was funded by the President's Emergency Program for AIDS Relief (PEPFAR) through the U.S. Agency for International Development (USAID) for seven years (2009-2016) and was implemented by JSI Research & Training Institute, Inc. (JSI) in partnership with the Bantwana Initiative, Communication for Development Foundation Uganda, mothers2mothers, and Uganda Cares.

This technical brief is made possible by the generous support of the American people through the President's Emergency Plan for AIDS Relief (PEPFAR) and the United States Agency for International Development (USAID). The contents are the responsibility of JSI Research & Training Institute, Inc. and do not necessarily reflect the views of PEPFAR, USAID, or the United States government.

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STAR-EC Technical Brief

IMPROVING LOGISTICS MANAGEMENT FOR HIV in East Central Uganda

Background

For HIV interventions to be maximally effective, having the right medicines and other health supplies at the right place at the right time and in the right quantity is crucial. A well-functioning supply chain management system is key to successful HIV service provision. In East Central Uganda, at the start of the STAR-EC project, evidence showed that health facilities in the region's nine districts had a number of logistics-related challenges that required urgent attention. Stockouts were persistent and the paper-based logistics management information system (LMIS) needed improvement. In addition, there was no systematic logistics support supervision mechanism between the health facility, district, and national warehouses. The necessary LMIS tools were often not available and health workers were not well-trained to effectively handle medical logistics, both at the District Health Office (DHO) and the health facility level.

In 2009, the Ugandan Ministry of Health (MOH) Pharmacy Division introduced the Supervision Performance Assessment Recognition Strategy (SPARS) to increase health workers' ability to manage medicines through on-the-job training and support from a new cadre of Medicines Management Supervisors (MMSs). These MMS were trained in medicine management aimed at improving the quality of prescribing, storage, store management, ordering, and dispensing of medicine within facilities. The ultimate goal was to accredit facilities for good pharmacy practices. The STAR-EC project has collaborated with other implementing partners in the region, such as the Securing Ugandan's Rights to Essential Medicines (SURE) program.¹

Interventions

STAR-EC has ensured that there is a continuous flow of HIV and AIDS commodities by giving technical assistance to the health facilities in the East Central Region through district focal persons during the bi-monthly ordering cycles of supplies from the National Medical Stores (NMS) and Joint Medical Stores (JMS). While working with the district biostatisticians and health management information system (HMIS) focal persons, health facilities have ordered anti-retrovirals (ARVs) from



Local fishermen help transport boxes of condoms and other HIV-related commodities to a health facility on Dolwe Island.

¹The aim of the USAID-funded SURE program was to strengthen Uganda's pharmaceutical supply system through improving the policy, legal and regulatory framework; and building capacity at the central and targeted district levels. Further information can be found at: <http://www.sure.ug/> (accessed 16/7/2016).

NMS and JMS through the web-based ART ordering system (WAOS). STAR-EC trained health workers from 33 health facilities in the use of this system, which replaced the paper orders that were being submitted to the NMS for ARV drugs. Additional training was conducted in logistics management for 114 health workers throughout the STAR-EC-supported health facilities. STAR-EC continued to support redistribution of supplies from overly stocked facilities to those with low quantities of supplies by working with MMSs and district focal persons.

To ensure increased capacity in supply chain management, through the routine SPARS activities, MMSs were able to visit facilities and conduct continuing medical education (CME) at the facilities to update health workers on the latest supply chain management methods. STAR-EC also worked in collaboration with SURE to ensure that medicines were managed well; LMIS tools such as stock cards were available; and stock books, issue requisition vouchers, and standard operating procedures (SOPs) were provided.



Health facility staff update stock cards during support supervision visits.

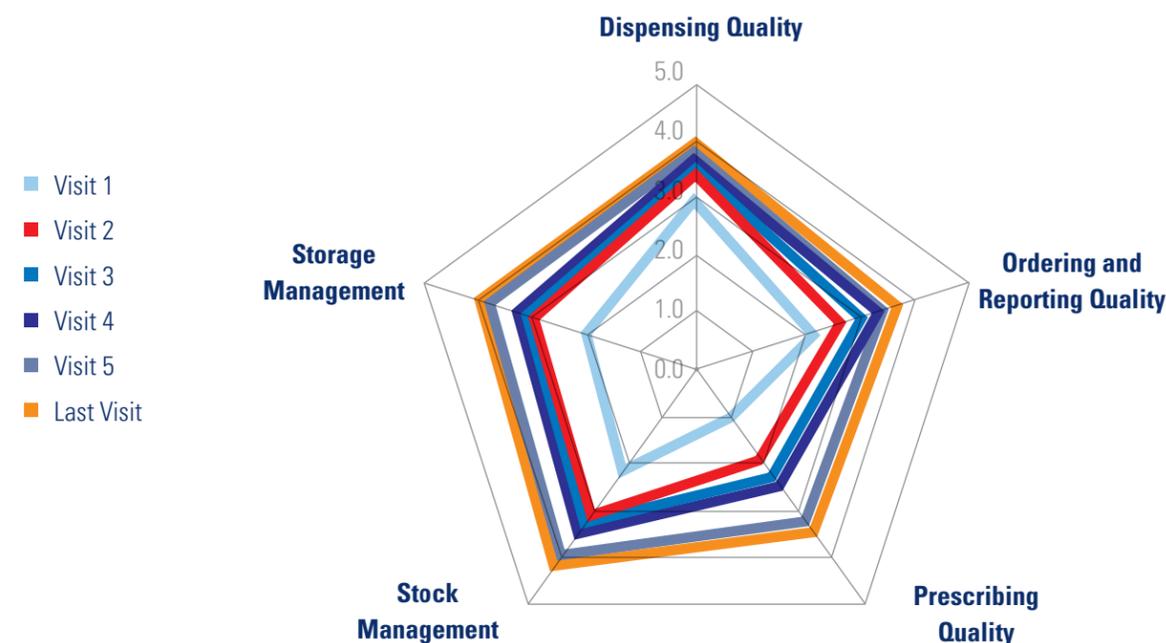
Improving logistics for health service provision

STAR-EC greatly improved the uptake of voluntary medical male circumcision (VMMC) for HIV prevention in the East Central Region through a variety of interventions, including strengthening the supply chain for these services. As a prerequisite for a VMMC site to become fully operational, kits needed to be placed in every location before service provision could begin. The project worked closely to make sure that procurement and distribution of the kits was done in a timely manner to ensure that all 22 facilities were able to begin VMMC services as planned. To improve health waste management, STAR-EC distributed over 200 waste bins and color-coded bin liners to 6 civil service organizations (CSOs) and 104 health facilities, with a particular focus on the VMMC sites.

Increasing accessibility and utilization of condoms

STAR-EC also worked diligently to ensure a consistent supply of condoms to meet the demand for them in the region. This was done through installation of condom dispensers in bars, lodges, guest houses and video halls. Such high-traffic 'hot spots' were identified and condom dispensers were installed in Bugiri, Kamuli, Iganga, and Namayingo Districts. STAR-EC worked closely with the bar, guest house, and lodge managers to encourage their customers to access free condoms from the dispensers while STAR-EC ensured consistent availability of condoms in these places. Throughout the life of the project, condoms were procured from the Uganda Health Medical Group (UHMG) and distributed to both government and private facilities as a top-up of what was normally distributed from NMS to prevent stockouts.

Figure 1: Supply chain improvement, 2009 -2016



Results

The logistics management system in the East Central Region has improved greatly since 2009, especially in the area of reporting. A December 2015 review of the WAOS Bimonthly Report shows that over 90 percent of health facilities in the region had sent in their ARV bimonthly order and reports to NMS.

Data from SPARS visits shows that between the beginning of the STAR-EC to July 2016, there has been promising and considerable improvement in all the parameters that are assessed. As the spider graph (Figure 1) shows, all five supply chain parameters have improved: store management, stock management, prescribing quality, dispensing quality and ordering and reporting quality, as noted by the health workers and the MMSs who do the mentorship during SPARS. These improvements will enable well-performing health facilities to be accredited for good pharmacy practices.

Conclusion

Significant progress has been made to improve the HIV logistics system in the East Central Region. Continuous health facility-based mentorships and support supervisions with CME have increased knowledge and engendered better performance of the health workers. If the staff remain in the region, they are now equipped to help ensure a high-quality supply chain. Timely submission of correct orders with proper quantification will lead to fewer stockouts experienced at health facilities.

While the HIV supply chain in the region has improved, the project has faced a number of challenges. Health facilities are now making timely submission of their bimonthly orders to the warehouses, yet the national warehouses have not consistently followed delivery schedules, resulting in stockouts of HIV test kits, ARVs and tuberculosis (TB) drugs, and ultimately disrupting service provision. MMS are often unable to do data