USING SPARS TO STRENGTHEN DISTRICT CAPACITY TO MANAGE AND UTILIZE HEALTH COMMODITIES

BACKGROUND

Before 2011, the Uganda Ministry of Health (MoH) was experiencing increasing medicine stock-outs in health facilities. The US Agency for International Development (USAID)-funded Securing Ugandans’ Rights to Essential Medicines (SURE) program, led by Management Sciences for Health (MSH), provided technical assistance to address this challenge by strengthening the Uganda public health supply chain system. In collaboration with the MoH, the signature intervention led by the SURE program was the Supervision, Performance Assessment, and Recognition Strategy (SPARS).

In 2011, the MoH piloted the essential medicines SPARS (EM SPARS) in 59 districts as a quality improvement approach to strengthen medicine management in government and private not-for-profit health facilities. As a continuous quality improvement approach, SPARS uses supportive supervisory visits; indicator-based performance assessment; sharing of performance findings with managers at all levels for action; and special recognition for good performance of districts, facilities, health workers, and supervisors.

District-level local government officials and private not-for-profit staff were selected to participate in this intervention based on their leadership skills and knowledge of pharmaceutical management issues. Supervisors were trained in medicines management and in providing supportive supervision to frontline health workers. Supervisors and health workers jointly identified medicines management challenges specific to each facility and were guided by an indicator-based performance assessment tool in five domains: stock management, storage management, ordering and reporting, prescribing quality, and dispensing quality. Supervisors were equipped with a laptop computer and internet connectivity to submit the findings from the facility performance assessment into the Pharmaceutical Information Portal (https://pip.health.go.ug/). Supervisors were also provided with motorbikes to travel to rural facilities.

The SURE program ended in 2014 and was followed by the USAID-funded, MSH-led Uganda Health Supply Chain (UHSC) project, which rolled out EM SPARS to 135 districts across the country. By June 2019, 73% of facilities in Uganda had met the 80% desired national target EM SPARS score (20/25). The SPARS scores have a positive relationship with medicines availability at the facility level. The SPARS intervention had a positive effect on several supply chain indicators, including stock management, prescribing quality (figure 1), store management, ordering, and reporting.

“A look at the state of health facility stores before SPARS implementation in Butambala district vis-a-vis after SPARS implementation can tell the whole story. There has been a complete revolution in stores management. Management of stores is now exceptional in all health facilities in Butambala district.”

Dr. Samuel Sekamatte, District Health Officer, Butambala.
The information collected by the medicines management supervisor has contributed to the availability of quality data, allowing for evidence-based supply chain decisions at all levels of the MoH, thereby improving commodity security.

In 2016, following the success of EM SPARS, the MoH decided to expand this approach into a package of interventions to build skills in managing TB (TB SPARS), HIV/AIDS (ART SPARS), laboratory services (Lab SPARS) and in pharmaceutical financial management (PFM). Figure 2 shows how SPARS has impacted these specialized areas.

Figure 2. Overall improvement of indicators in various intervention areas

IMPLEMENTATION AND RESULTS

Building Capacity in TB SPARS

To close the gaps in TB services, UHSC worked with the National TB and Leprosy Program to implement a pilot test of TB SPARS in 20 districts, covering 202 TB treatment facilities, from November 2016 to September 2018. Twenty district TB and leprosy supervisors and 20 district laboratory focal persons were trained to assess and support facility performance on indicators measuring the quality of laboratory diagnosis and infection control, patient care and treatment, logistics management of TB medicines and lab supplies, and record-keeping and reporting. Using the results of the assessment, supervisors mentored staff on how to improve jointly identified weak areas. Health workers and supervisors agreed on improvement plans.

In the 20 pilot districts, improvements were made on all TB case management indicators after only five supervision visits over the 18-month period (see, figure 3). Appropriate screening and diagnosis improved from 52% to 86%, treatment follow-up improved from 71% to 86%, adherence to standard guidelines increased from 48% to 78%, and HIV/TB co-infection cases managed correctly improved from 70% to 100%. Health workers showed they were motivated to take more active roles to provide high-quality TB services.

Building Capacity in Lab SPARS

In 2016, a survey of 120 laboratories found that virtually all were stocked out of one or more of the supplies required to diagnose HIV, TB, malaria, and other common diseases. Collaborating with the Uganda National Health Laboratory Services (UNHLS), UHSC and the MoH designed a pilot intervention of Lab SPARS to resolve the root problems causing stock-outs.

Figure 1. Effect of SPARS on prescribing quality of three common diseases

Figure 3. Average facility performance of TB case management indicators in 20 pilot TB SPARS districts, November 2016–September 2018
Lab SPARS aimed to improve the knowledge, skills, and practices of laboratory staff in five critical areas: stock management, laboratory storage management, laboratory information systems, ordering, receipt and recording, and laboratory equipment management (see figure 4). UHSC worked with the NHLS to train 42 district Lab SPARS supervisors, who assessed facility performances in the five areas in the 20 pilot districts (August 2017–September 2018). Lab SPARS supervisors worked with laboratory staff to develop and implement practical action plans to improve the facility’s weakest areas.

Performance improved in all 292 pilot facilities over the five Lab SPARS supervision visits. The greatest improvement was seen in ordering, receipt, and recording, from 38.2% to 71.2%.

**Building Capacity in Antiretroviral Therapy SPARS**

The test and treat strategy for achieving HIV/AIDS control has increased the volume of antiretroviral (ARV) medicines needed for the increased numbers of antiretroviral therapy (ART) patients, and proper management and accounting is even more crucial. Working with the Pharmacy Department and AIDS control program and partners, UHSC developed ART SPARS to improve the quality of data recorded and reported on ARV logistics management and ART patients and ensured that facilities fully account for all the medicines they receive.

By December 2019, 400 trained ART SPARS supervisors supported 1,485 ART Sites to identify and prioritize weak areas of performance, which were then tracked to measure progress over time. In addition to ARV ordering and reporting, stock management, and traceability, the supervisors strengthened facility staff practices on ART patient care and management. From November 2018 to December 2019, ART medicine management performance scores improved from an average of 11% at baseline to an average of 78% by the fourth visit.

“Now we have enough supplies available because we carefully track and record our commodities, know the minimum and maximum stock levels, and can plan orders and make timely requests based on actual consumption.”

Dr. Samuel Sekamante, District Health Officer, Butambala.

**Building Capacity in Pharmaceutical Financial Management (PFM)**

Resources allocated for procurement of essential medicines and health supplies were limited and needed to be optimally utilized. PFM was designed to improve utilization of essential medicines and health supplies resources at the health facility through capacity building of health staff to manage scarce resources.

A total of 425 medicine management supervisors and regional pharmacists were trained on how to allocate resources; quantify and order essential medicines and health

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**Figure 4. Average Lab SPARS performance scores of pilot facilities at visits 1 and 5, August, 2017–September, 2018**
“PFM has informed health workers on the importance of good stock management since there is value for money attached to essential medicines and health supplies. PFM has created awareness on the different funds allocations hence making it easy to track these funds. Generally, proper handling of resources has improved.”

Assumpta Nansamba, a medicine management supervisor in Mpigi district

supplies according to facility needs; and strengthen financial planning, tracking, and expenditure management and use of pharmaceutical financial information for decision making. The medicines management supervisors mentored health staff, assessed facilities, identified weak areas, and helped frontline health workers improve in these areas. As a result, performance improved from 24% at baseline to 77% after five visits. The greatest improvements were in tracking of budget allocations and expenditures and in the ordering process.

CONCLUSION

As detailed above, the SPARS intervention has demonstrated it can be adopted by the MoH to strengthen the public health supply chain system. The PFM intervention demonstrates the versatility of the SPARS intervention, which can be adapted to other challenges in optimizing scarce financial resources. SPARS is a district-led approach that promotes local ownership, ensuring sustainability of program activities and results. SPARS supervisors remain focal persons and key staff in medicines management and supply chain in the country today.

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