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USAID/Uganda Strengthening Supply Chain Systems (SSCS) Activity



IMPACT STORY

HEALTH SUPPLY CHAIN CENTERS OF EXCELLENCE IMPLEMENTATION IN REFERRAL HOSPITALS IN UGANDA

September 2024

Background

The National Supply Chain Assessment (NSCA 2.0) of 2018 examined the capability and performance of Uganda's public health supply chain at seven regional referral hospitals (RRHs) through three distinct elements: the supply chain mapping exercise that provided a visual representation of the country's supply chain; the capability maturity model (CMM) that measured the overall capability, resources, processes, and functionality of the country supply chain; and the key performance indicators used to measure supply chain performance. The findings showed that the sampled RRHs performed worse than lower-level facilities across 22 key performance indicators and 11 capability maturity model functional areas, and capacity improvement and investment in electronic logistics management information systems (eLMIS), waste management, quality assurance and pharmacovigilance, stock management, and human resources were recommended.

Based on the findings, the Ministry of Health (MoH), with technical assistance from the USAID Strengthening Supply Chain Systems (SSCS) Activity, developed an approach to enhance health supply chain (HSC) performance, innovation, and best practices in national and regional referral hospitals (N/RRHs) in Uganda. This approach aligns with the objectives of the Human Resources for Health Strategic Plan 2020-2023 and the National Health Sector Strategic Plan IV 2020/2021 – 2024/2025 to achieve universal health coverage. Specifically, this approach set out to strengthen RRHs’ capacity to:

<p>Advocate, develop, and disseminate best practices in HSC management in public and private health facilities</p>	<p>Serve as hubs for knowledge-sharing, training, and capacity-building for HSC stakeholders in the country</p>	<p>Ensure the quality and reliability of HSC management within the lower-level facilities that the hospital supervises</p>
<p>Facilitate collaboration and coordination among health facilities, government agencies, non-governmental organizations, and other stakeholders involved in HSC management</p>	<p>Foster a culture of continuous improvement in HSC management practices</p>	

This story highlights the enhancements of referral hospitals’ capacity and performance in HSC as “Centers of Excellence” (CoEs).

Approach

Capacity strengthening for CoEs targeted 22 N/RRHs including the seven RRHs that were earlier part of NSCA 2.0 assessment.

The CoE assessment tool was developed based on a review of three tools—NSCA 2.0; SPARS (supervision, performance assessment and recognition strategy to improve medicines management in health facilities); and pharmaceutical financial management tools—and aligning the review with HSC priorities. Under the guidance of the MoH Department of Pharmaceuticals and Natural Medicines (DPNM) and N/RRHs, the CoE assessment criteria were refined to cover 15 modules of key HSC functions with corresponding indicators to measure their performance (Figure 1). The tool was approved by the MoH Standards, Compliance, Accreditation, and Patient Protection Department.

Each referral hospital had a baseline assessment, after which subsequent assessments were conducted at the referral hospitals to check their progress towards becoming supply chain CoEs.

NSCA CMM functions	CoE functions (# of Indicators)
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Policy and Governance	<input type="checkbox"/> Policy & Governance (6)
<input type="checkbox"/> Strategic Planning and Management	<input type="checkbox"/> Strategic Planning and Performance Management (7)
<input type="checkbox"/> Human Resources	<input type="checkbox"/> Supply Chain Human Resources (13)
<input type="checkbox"/> Financial Sustainability	<input type="checkbox"/> Financial Sustainability (6)
<input type="checkbox"/> Quality and Pharmacovigilance (QPV)	<input type="checkbox"/> Pharmacovigilance (5)
<input type="checkbox"/> Forecasting and Supply Planning	<input type="checkbox"/> Forecasting and Supply Management (7)
<input type="checkbox"/> LMIS	<input type="checkbox"/> eLMIS (7)
<input type="checkbox"/> Waste Management	<input type="checkbox"/> Waste Management (7)
<input type="checkbox"/> Procurement and Customs Clearance	<input type="checkbox"/> MTC Functionality (9)
<input type="checkbox"/> Warehousing and Storage	<input type="checkbox"/> Antimicrobial Stewardship (AMS) (7)
<input type="checkbox"/> Distribution	<input type="checkbox"/> SCM Research and Data Use (3)
	<input type="checkbox"/> Ordering (7)
	<input type="checkbox"/> Supply Chain Reporting (3)
	<input type="checkbox"/> Inventory Management (8)
	<input type="checkbox"/> Pharmacy and Stores Management (12)

“Mbale Regional Referral Hospital has earned its reputation as a supply chain Center of Excellence, largely due to the strengthening and continuous development of our human resources. Through numerous specialized training programs, we have enhanced the skill set of our staff, which directly benefits the broader health system. Our team extends this expertise to lower-level health facilities by offering essential technical support. —Dr. Steven Obbo, Director, Mbale Regional Referral Hospital.

Figure 1: Health supply chain assessment modules

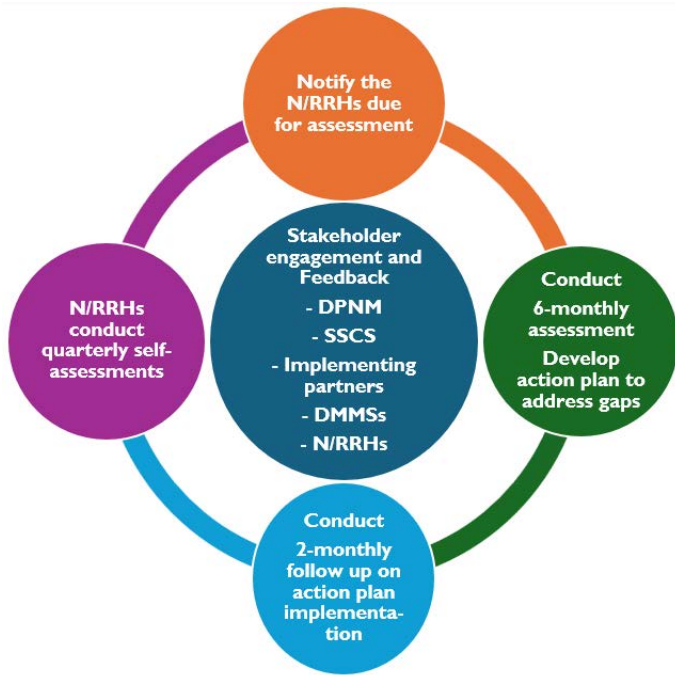


Figure 2: Approach to the CoE assessments in N/RRHs

The CoE assessment tool scores facilities as compliant, partially compliant, or noncompliant using the indicators under each of the 15 modules. Facilities achieving an average of at least 80% compliance across the modules attain CoE status.

Assessments of the RRHs' performance in the supply chain modules follow a cycle (Figure 2). SSCS, in collaboration with MoH DPNM, implementing partners, and District Medicines Management Supervisors conduct assessments every six months at the referral hospitals. The two-day exercise engages the hospital to fill in the assessment tool on day one, and on day two, a debrief is conducted and an action plan developed to address identified gaps. Progress on implementing the action plan is monitored every two months by the SSCS team and quarterly by the hospitals through self-assessments. In all these engagements, ongoing feedback is provided to inform improvements.

Results

1 Increased RRH capacity compared to NSCA 2018 findings

Compared with the NSCA 2.0 2018 assessment, the seven RRHs (Arua, Hoima, Kabale, Mbale, Moroto, Naguru, and Soroti) made substantial improvement overall in HSC after applying the CoE approach (Figure 3). The RRHs improved greatly in seven functions, exceeding the 80% threshold score for CoE status; however, they made only minimal improvement in the eLMIS function due to a number of factors including changes of the eLMIS at the RRHs during the implementation period.

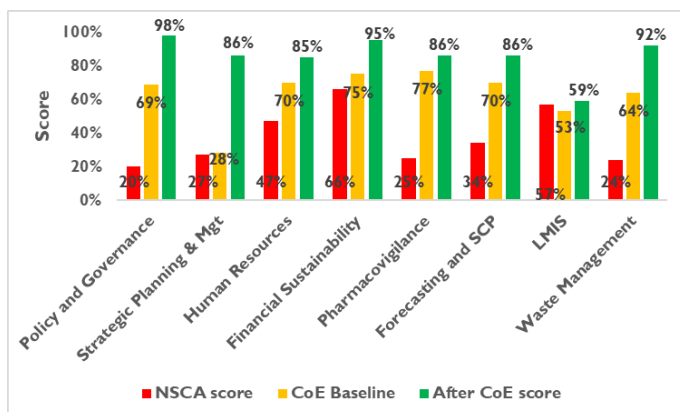


Figure 3: HSC capacity in seven RRHs before and after CoE implementation

2 CoE status attained

Fourteen out of the 22 supported N/RRHs achieved the 80% threshold for HSC CoE status by end of September 2024 (Figure 4). Lira RRH, with a baseline assessment of 75% in May 2021, was the first to attain CoE status at the second assessment in November 2021 and has maintained the status with a 90% score on its sixth latest assessment at end of September 2024. Moroto was the second to achieve CoE status with a baseline of 74% in April 2021 rising to 84% in November 2022 during the third assessment. Kayunga RRH, with a baseline score of 56% in September 2022, reached 80% during the third assessment in January 2024, and maintained it through the fourth assessment.

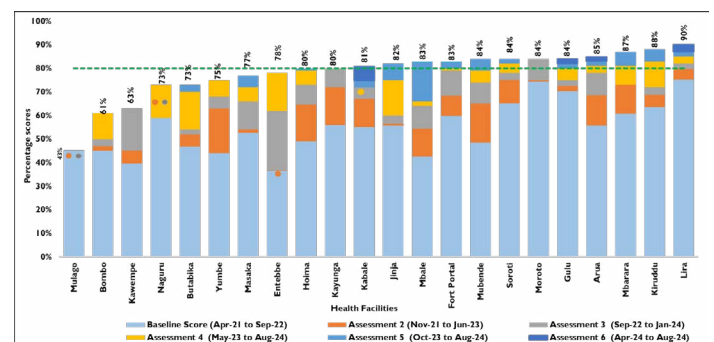


Figure 4: CoE scores for referral hospitals over six assessments (April 2021-September 2024). Dots indicate a score that remained constant or declined from the previous assessment.

3 Strengthened capacity in health supply chain functions

The 22 N/RRHs improved in 11 of 15 health supply chain functions, including 5 from NSCA 2018, after implementation of the CoE approach (Figure 5). The highest improvements (>90%) were in pharmacovigilance (PVC) policy and governance, supply chain reporting, and store management. The 22 hospitals varied in strategic planning performance with the 7 RRHs included in the NSCA 2018 assessment scoring 86%, but overall, the 22 hospitals only scored 66%. Improvements in eLMIS, research, and antimicrobial stewardship (AMS) are still minimal at the facilities.

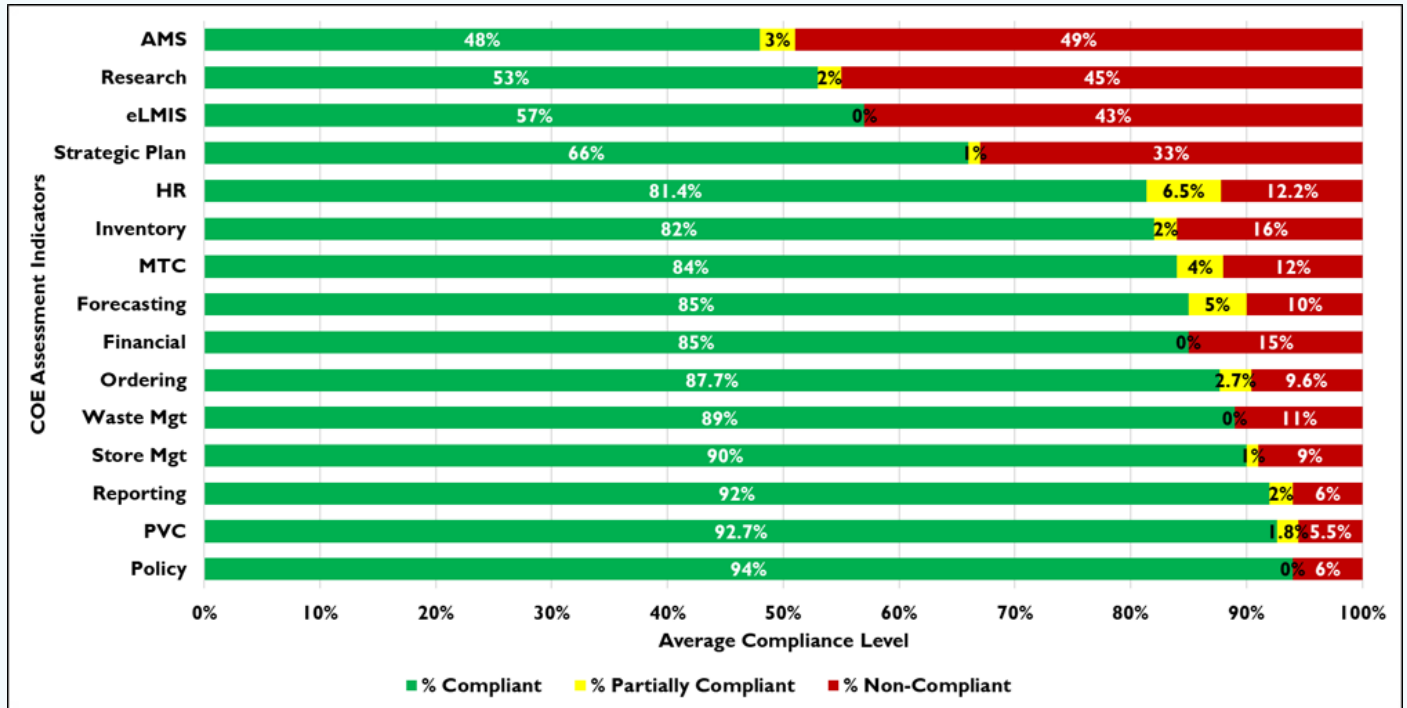


Figure 5. Average compliance criteria scores for hospitals across 15 modules (April-September 2024)

4 Increased potential to cascade capacity to lower-level facilities

RRHs have made progress in managing their own HSC management practices, which they need to extend to lower-level facilities in their catchment area to ensure effective HSC management at all levels.

- Referral hospital personnel serve as the chairpersons and hosts of the monthly regional technical working groups (TWGs) that track progress toward HSC performance indicators to guide continued use of best practices and address HSC management challenges. This provides a platform to spearhead the hub-and-spoke model of sharing best practices with lower-level facilities.
- Referral hospitals advocate for improved supply chain reporting, (HMIS 105-6 complete reporting) which is a key agenda item for discussion in the TWGs to establish a best practice in the lower-level facilities.
- RRHs, the first recipients of eAFYA and Clinic Master electronic medical records systems, support the rollout to lower-level facilities with some already being mentored in eLMIS use by the District Medicines Management Supervisors and Information Technology Officers.
- RRHs have Medicines Therapeutic Committees and are supporting their expansion to lower-level facilities. Additionally, the RRHs' involvement in establishing AMS and logistics subcommittees at lower-level facilities brings them to the forefront of best practices.



Our confidence to execute our mandate to cascade our support supervision role in supply chain to all health facilities in West Nile has been strengthened by the Health Supply Chain Center of Excellence mechanism. Through routine mentorships from SSCS and MoH DPNM, my hospital supply chain team has been empowered in critical supply chain areas of support to guide, mobilize, and lead the region in all areas regarding medicines and supplies.—Dr. Alex Andema, Director/ Senior Executive Consultant, Arua Regional Referral Hospital



We have made significant strides in digitalizing our supply chain management. Currently, we are implementing the E-AFYA system, which has been instrumental in enhancing our operations and cementing our position as a Center of Excellence. As a key implementing partner with USAID, we are collaborating with government-to-government partners to ensure the sustainability of our supply chain management systems.—*Dr. Steven Obbo, Director, Mbale Regional Referral Hospital.*

Lessons learned

- 1 Support for HSC CoEs requires strong national and subnational partnerships across health facilities, government agencies, and stakeholders for joint resource sharing and effectively addressing HSC challenges.
- 2 HSC CoE status is not a one-off achievement but rather a continuous process for quality improvement through constant learning, innovation, and adaptation to overcome challenges and opportunities in the dynamic HSC system and improve resilience in Ugandan health facilities.
- 3 Integrating the HSC CoE approach into national and district systems is important to ensure that it is cascaded to lower-level facilities.
- 4 Effective monitoring and evaluation systems are crucial for assessing the impact of HSC CoE interventions on supply chain management and health commodity availability, with regular data collection and feedback aiding in progress tracking and improvement.

Recommendations

- 1 The MoH and implementing partners should create customized interventions for each health facility based on CoE assessment gaps, while CoE-certified hospitals should develop mentorship plans to support lower-level facilities and lead regional health supply chain TWGs.
- 2 Online forums, webinars, and discussion groups should be utilized to promote collaboration among health facilities, enabling staff to share best practices, lessons learned, and innovative solutions for supply chain challenges through regular communication and networking.
- 3 The MoH and district authorities need to implement mechanisms for ongoing monitoring and evaluation of CoE supply chain performance to identify areas for improvement and assess impacts of interventions.
- 4 The MoH should foster continuous learning within CoEs to promote innovation through experimentation, capture lessons learned, and integrate stakeholder feedback to improve supply chain management practices over time.

About

USAID SSCS Activity

The USAID-funded Strengthening Supply Chain Systems Activity aims to support the Government of Uganda to move its health supply chain system further to accelerate local capacity development by improving performance to ensure uninterrupted availability of quality essential medicines and health supplies (EMHS), improving the health status of all Ugandans. The SSCS Activity is implemented by Management Sciences for Health (MSH), in collaboration with Advocates Coalition for Development and Environment (ACODE) and Uganda HealthCare Federation (UHF).

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