

# Creating a Demand Driven-Supply Chain: Aligning Stakeholders and Priorities

## TECHNICAL ISSUE BRIEF

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### AT A GLANCE

Positive progress has been made in the health supply chain in Tanzania. By building capacity for strengthened quantification across vertical programs, transforming Tanzania's Medical Stores Department (MSD), and introducing an electronic logistics management information system (eLMIS), the availability of supply chain data and health commodities has improved. Further, the establishment of various supply chain-related technical working groups and Tanzania's Logistics Management Services (LMS) have enhanced coordination and monitoring of supply chain performance.

In 2017, a holistic review of the public health supply chain was conducted by Tanzania's Ministry of Health, Community Development, Gender, Elderly, and Children (MoHCDEG), USAID's Global Health Supply Chain Technical Assistance-Tanzania Program (GHSC TA-TZ), and other partners with funding from USAID, The Global Fund to Fight AIDS, Tuberculosis and Malaria, and the United Nations Development Programme (UNDP). The review aimed to identify capacity gaps and actions needed to strengthen the supply chain of health commodities. During the study, the team identified the following key gaps and weaknesses in the supply chain: irrational spending driven by a weak system for health commodities selection and specifications, low inventory velocity from MSD to health facilities, MSD's lack of sustainability due to limited adaptability to client needs and the changing landscape of health financing, and the absence of end-to-end supply chain visibility for quick and better decision making to improve commodities' availability.

The review analyzed six unique aspects of the health commodities supply chain in Tanzania through a process of extensive consultation and field data collection and analysis. It explores multiple avenues for improvement, including reforms, introduction of new approaches, and institutional capacity building. Most critically, it proposes practical, sustainable strategies for supply chain improvement with clear pathways for implementation.

## THE CHALLENGE

Achieving universal health coverage requires a commitment to providing access to high-quality, effective, and affordable medicines and vaccines for all. In Tanzania, the steadily improving performance of the public health supply chain has contributed to expanded access to essential health commodities, a dramatic reduction in mortality from HIV, tuberculosis, and malaria, and the decreased incidence of vaccine-preventable diseases. Concerted prevention and treatment efforts, introduction of output-based financing mechanisms, and supply chain restructuring efforts have all contributed to improvement in health outcomes. However, several challenges remain that can diminish the successes of ongoing reform:

- ***Inadequate supply chain leadership and oversight in the country.*** Despite efforts to reform the health system, current supply chain oversight mechanisms may not be in a strategic position to ensure strong governance and leadership. The complexity of a supply chain design characterized by multiple entities with some degree of autonomy has led to fragmented investments that resulted in inefficient use of resources, tendency towards non-compliance with governing rules and regulations, and an inadequate monitoring of processes and performance.
- ***The MSD's business strategy and processes are not fully aligned to respond to clients' needs.*** MSD's delivery arm frequently misses opportunities for increased efficiency by not having certain solutions in place, such as a proactive business-oriented sales team, strong inventory velocity, and sub-optimal utilization of LMS. To ensure stronger financial standing and sustainable growth, the MSD must change the business model to be competitive in the market.
- ***High supply chain operating costs and unavailability of funding at the point of care.*** Currently, the supply chain is operating sub-optimally at the regional and local government levels, and frequent stock-outs indicate that health facilities manage critically low quantities of commodities. The Government's move to implement direct health facility financing (DHFF) alongside complementary funding from the National Health Insurance Fund and community-based health insurance would reap the advantages of economies of scale and enable decision-making power at a health facility level. However, it is critical that guidance around planning, procurement, and management of health commodities through DHFF is provided without diverting from the national supply chain system.
- ***Lack of evidence-based practice to selection and specification of pharmaceuticals.*** Standard treatment guidelines and the Essential Medicines List are outdated and do not reflect the current medical knowledge, with 30% of medicines on the list having no demonstrated evidence of effectiveness. These issues are compounded by the lack of standardization of laboratory and medical equipment, primarily funded through donors. This places a significant constraint on the health system's scarce financing and impacts the availability of medicines and health services for the nation's most vulnerable citizens.
- ***End-to-end supply chain visibility is still a missing piece.*** eLMIS provides a system for health data management that ensures greater commodity security and better health outcomes for the people of Tanzania. eLMIS links health facilities with the central store to collect and distribute logistics data in order to foster better, faster, and more accurate reporting of supply chain data, reduce stockouts of health commodities, and ultimately provide better access to medicines. Having a 'discrete' and functional eLMIS is only part of a more complex solution which ultimately requires a system that is integrated and provides triangulation of data and real-time visibility of supply chain processes across all levels of care.

## ENVISIONING A SOLUTION

In the past decade, the Government of Tanzania and international donors made deep investments in its supply chain management systems, including establishing the national Logistics Management Services (LMS) - formerly the Logistics Management Unit (LMU) - to improve oversight of public health commodities by organizing and monitoring supply chain processes across the country, and introducing a national web-based eLMIS to drive more efficient and high-quality collection, reporting, and visualization of data produced from the paper-based system. It is critical to build upon the foundational success of these investments to empower stakeholders and drive efficiencies at every level of the healthcare continuum. The ultimate goal of any supply chain reform is to strengthen institutional capacity to manage the system in a cost-effective and sustainable manner. The following seven reform areas have been identified as top priorities in the journey towards a strengthened public supply chain to ensure the timely accessibility of essential health commodities for all Tanzanians:

### **1. Improve rational and cost-effective demand planning and use of commodities through standardization and streamlining processes**

In order to improve national mechanisms for reviewing and updating essential medicines and lab supplies lists and improve governance and oversight of laboratory and diagnostics, the MoHCDGEC will have to improve resource allocation towards these functions, embark on harmonization of the biomedical and lab equipment standards, and form a national quantification entity to lead and oversee quantification processes. The entity may include the Pharmaceutical Services Unit (PSU), the President's Office Regional Administration and Local Government (PO-RALG), the Medical Stores Department (MSD), and implementing partners. Moving forward, it is important to institutionalize the quantification of essential health commodities at the Local Government Authorities (LGAs) level through a "bottom-up" approach; in this way, the process will be fully owned by both MOHCDGEC and the PO-RALG.

### **2. Transition MSD to become a self-sustainable, adaptable business able to promptly respond to clients' needs**

The current strategy to fund health commodities and contain costs does not adequately address the needs of all of the clients MSD aims to serve. To address these challenges, the GoT jointly with implementing partners must develop a medium-to-long term plan for commodities financing and management of those funds. It may be necessary to establish a health commodities price control mechanism and maximize the use of all complementary financing mechanisms such as National Health Insurance Fund (NHIF) and community-based health insurance fund (CHF). As a way to recapitalize the MSD and ensure adequate and reliable fund flow, the GoT through the MoHCDGEC may consider earmarking at least 25% of NHIF/CHF and other insurance funds. Additionally, the GoT may consider charging a small levy (e.g. 1% of all local government collection, or 1% of the annual cost sharing funds) and direct the funds to MSD.

### **3. Strengthen procurement systems at MSD and health facilities and increase stock visibility by reporting the stock status to clients**

The healthcare supply chain in Tanzania is characterized by poor visibility of stock, weak coordination mechanisms, lack of key performance indicators (KPIs) and contract tracking tools, as well as non-compliance with legislation and guidelines. Following the holistic supply chain review, the GHSC TA-TZ team envisions the reform of the procurement process with MSD continuing the implementation of the strategy to reduce procurement lead time. In addition, the MOHCDGEC may consider enforcing

bottom-up procurement planning from health facilities to MSD and collaborative planning between MSD and vertical programs. Performance management tools need to be established together with electronic tracking and accountability mechanisms to enforce compliance. Finally, in the long run, MOHCDGEC can establish LGA purchasing organizations that will be responsible for managing health facilities and procurement from private suppliers.

#### **4. Maintain efficient stock levels throughout the supply chain by increasing inventory velocity and reducing stock levels**

The holistic supply chain review revealed that MSD and health facilities are struggling with sub-optimal inventory levels and experiencing challenges tracking consumption trends for commodities. Moving forward, it will be critical to improve data quality and use for operational and strategic decision making, redesign inventory management tools to simplify data capture and reporting at the facility level, and introduce automation where possible. The review demonstrated the need for the MSD to revisit its inventory velocity to address clients' needs and achieve maximum throughput, for which an optimization exercise may be conducted. Key priorities include:

- Reduce pipeline and inventory levels to reduce cost of storage (and minimize expiries)
- Increase reporting frequency to monthly (from quarterly)
- Increase inventory velocity to once in two months (from quarterly)
- Report on three key inventory data points
- Improve inventory management practices at MSD

#### **5. Procurement of warehouses to address current MSD storage space constraints**

Poor data quality is a persistent issue in Tanzania's healthcare supply chain, particularly when it comes to visibility into warehouse utilization and stock of essential medicines, and tracking demand vs. consumption. Zonal stores are facing significant space constraints. Improving storage, warehouse, and logistics procedures requires a comprehensive approach that spans investments in human resources (for better data quality and accuracy, utilization of eLMIS and other technologies) to initial investments in the expansion of the truck fleet and warehouse capacity at immediate pressure points, such as Muleba, Moshi, Mtwara, and Iringa.

#### **6. Increase supply chain visibility by developing a universal electronic platform for end-to-end visibility**

While the use of eLMIS represents critical progress in tracking and reporting of Tanzania's health commodities, the system is not yet fully integrated into all processes and facility levels and thus extended supply chain visibility remains limited. Plans to fully implement eLMIS have fallen through due to fragmented investments, and only partial roll-outs have been undertaken nationwide. GHSC TA-TZ advised that the National eHealth Steering Committee lead the upgrade and update of eLMIS and other electronic systems to meet the functional capabilities required and ensure interoperability of those systems (e9, eLMIS, GoTHOMIS, DHIS and others). In addition, it is important to establish a supply chain management portal that will provide a platform for different systems, consolidated data, information, reports, and the performance of individual supply chain functions. The portal should act as a virtual resource center for records, publications and databases (e.g. supply chain experts' data).

## **7. Strengthen pharmaceutical management by addressing human resources issues across the supply chain**

As the GoT works to strengthen systems and resources across the healthcare supply chain, investment in a productive health facility and pharmaceutical workforce is essential. To most effectively execute supply chain functions and streamline the flow of essential medicines across Tanzania, it is recommended that PO-RALG employ and deploy pharmaceutical staff at all healthcare facilities. Consideration should be made to employ staff graduating from one-year dispensing courses to work in dispensaries and health centers to oversee activities and ensure quality control.

### **DRIVING RESULTS**

The Government of Tanzania and the GHSC TA-TZ team are working together to implement the above recommendations. Following the Holistic Supply Chain Review, a costed implementation plan was developed, the review's findings were incorporated into the National Pharmaceutical Action Plan, and a tracking dashboard tool was developed to monitor progress on reform activities. Other key achievements to date include:

- Over 600 personnel hired by PO-RALG to address some of the human resources gaps related to supply chain and commodities management;
- Partners worked collaboratively to design a set supply chain KPIs, which are in the process of implementation;
- The team engaged in an essential health commodities quantification reform and redesign of the logistics system in the country;
- MSD procured 182 vehicles supported by the Global Fund to strengthen the public logistics network and streamline the flow of commodities at key pressure points.

The challenges and recommendations discussed in the Holistic Supply Chain Review will continue to shape the priorities and strategy of the GoT and other partners for years to come, while these initial achievements establish a strong foundation upon which future project success can be built.

*USAID GHSC TA-TZ was launched in June 2016. The program provides technical assistance to the Tanzanian government to support the development of agile, robust, and sustainable health supply chains that will contribute towards improving the health status of Tanzanians. The project team is led by Guidehouse (formerly PwC Public Sector) and includes John Snow Inc., Abt Associates, VillageReach, the University of Dar es Salaam, and Pharmaceutical Systems Africa. This partnership brings together international and domestic expertise in supply chain and organizational management, health financing, public health policy, and private sector partnerships.*