



GLOBAL HEALTH SUPPLY CHAIN PROGRAM - TECHNICAL ASSISTANCE TANZANIA

Quarterly Report October - December 2019 (Y4, Q1)

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ACRONYMS

ACT	Artemisinin-based Combination Therapy
ART	Antiretroviral Therapy
ARV	Antiretroviral
CHMT	Council Health Management Team
CIP	Costed Implementation Plan
CMS	Central Medical Store
CP	Chief Pharmacist
DHIS2	District Health Information System
DMO	District Medical Officer
DPP	Directorate of Policy and Planning
DQA	Data Quality Assessment
DRF	Drug Revolving Fund
EID	Early Infant Diagnosis
eLMIS	Electronic Logistics Management Information System
EM	Essential Medicines
ESP	Emergency Supply Chain
FEFO	First Expired First Out
FP	Family Planning
GHSC-TA-TZ	Global Health Supply Chain Technical Assistance - Tanzania
GoTHOMIS	Government of Tanzania Hospital Management Information System
GoZ	Government of Zanzibar
HCWs	Health Care Workers
HF	Health Facility
HIM	Health information mediator
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HSCR	Holistic Supply Chain Review
HVL	HIV Viral Load
ILS	Integrated Logistics System
IMPACT	Information Mobilized for Performance Analysis and Continuous Transformation
IP	Implementing Partner
KPI	Key performance indicator
LMU	Logistics Management Unit
MoH	Ministry of Health (Zanzibar)
MoHCDGEC	Ministry of Health, Community Development, Gender, Elderly and Children
MRDT	Malaria Rapid Test Kits
NACP	National AIDS Control Program
NMCP	National Malaria Control Program
NPAP	National Pharmaceutical Action Plan
NTLP	National Tuberculosis and Leprosy Program
PO-RALG	President's Office of Regional Administration and Local Governments
PS	Permanent Secretary
PSM	Procurement and Supply Management
PSU	Pharmaceutical Services Unit
QA	Quality Assessment
TA	Technical Assistance

TOR	Terms of Reference
TOT	Training of Trainers
USAID	United States Agency for International Development
WFP	World Food Program

INTRODUCTION

The Global Health Supply Chain Technical Assistance - Tanzania (GHSC-TA-TZ) project provides specialized technical assistance (TA) to Tanzania to strengthen country supply chain systems across health elements, e.g., malaria, family planning (FP), HIV/AIDS, tuberculosis (TB) and maternal, newborn and child health (MNCH). In coordination with in-country and development partners, GHSC-TA-TZ assists Government of Tanzania (GoT) health programs and stakeholders by providing technical assistance across four objectives. The project goal is to support the development of agile, robust, and sustainable health supply chains that will contribute towards improving medicines availability and the health status of Tanzanians.

GHSC-TA-TZ activities are organized across objectives and interventions, shown in Figure 1.

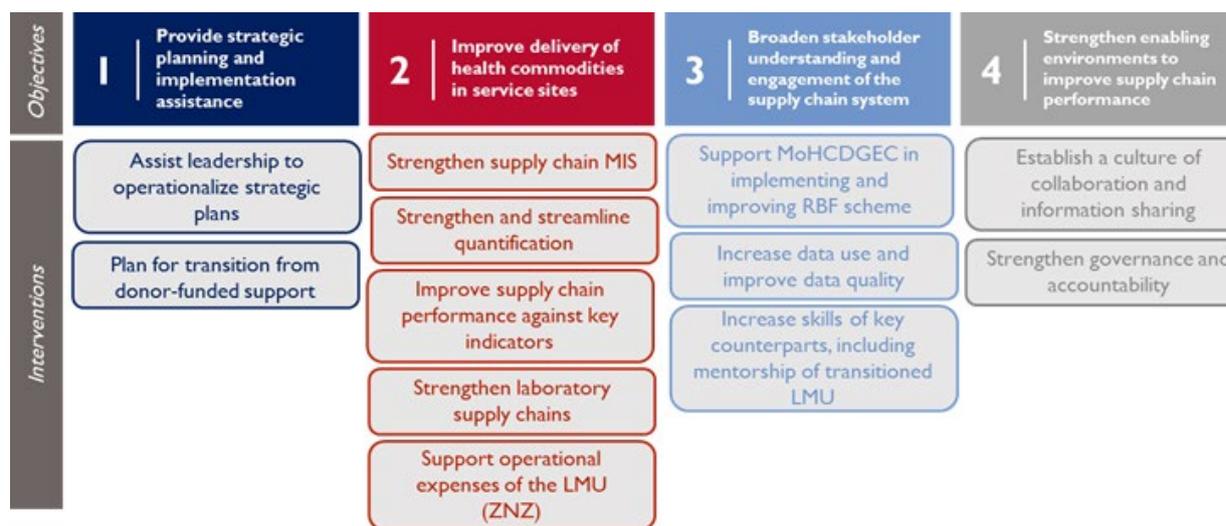


Figure 1: Project Organization by Objective and Intervention

The project implements its work with a range of stakeholders in mainland Tanzania and Zanzibar, embodying a collaborative approach, and integrating capacity building throughout technical assistance activities. Key stakeholders (in addition to USAID and CDC) include: Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC)—specifically the Pharmaceutical Services Unit (PSU), Diagnostics Service Section (DSS), Information, Communication and Technology (ICT) directorate, and vertical programs [including National AIDS Control Program (NACP), National Malaria Control Program (NMCP), Reproductive and Child Health Services (RCHS) Program, and National Tuberculosis and Leprosy Program (NTLP)]—Medical Stores Department (MSD) (central and 10 zones), President’s Office of Regional Administration and Local Governments (PO-RALG) (comprised of 186 councils, 168 districts, and 26 regions), Zanzibar Ministry of Health (MOH), Zanzibar Central Medical Stores (CMS), Zanzibar Vertical Programs, and other implementing partners.

KEY ACCOMPLISHMENTS THIS QUARTER

A summary of the key project accomplishments by objective during Q1 FY2020 is provided in Figure 2.

Objective 1: Provide Strategic Planning and Implementation Assistance	Informed the Zanzibar Supply Chain Action Plan: Worked with the Zanzibar Chief Pharmacist Office (CPO) to identify achievements, conduct a gap analysis, and develop recommendations to inform the 2020/2024 Zanzibar Supply Chain Action Plan	Improved Emergency Supply Chain Preparedness: Continued providing TA on ESC preparedness and response to strengthen to logistics pillar of the MOHCDGEC	Advocated for the eLMIS Transition Plan: Socialized the eLMIS transition plan with GoT stakeholders and provided training on eLMIS level 1 and level 2 user support
Objective 2: Improve Delivery of Health Commodities in Service Sites	Created eLMIS Dashboards: Created eLMIS dashboards to support supply chain decision-making for multiple levels of stakeholders Improved TB Supply Chain: Facilitated a workshop to optimize the logistics system for MDR-TB medicines	Supported Quantification Exercises: Intensified capacity building efforts for pipeline monitoring of vertical programs and provided TA to quantification exercises Reviewed Laboratory Quantification: Conducted biannual quantification review for laboratory commodities	Conducted Redesigned System Readiness Assessments: Conducted Phase 2 of the MSD Zones Assessment, identifying specific actions needed for MSD to meet the requirements of the redesigned system
Objective 3: Broaden Stakeholders' Understanding and Engagement with the Supply Chain System	Supported RBF: Aligned RBF indicators according to the redesigned system and conducted verification exercises Assessed IMPACT Team Approach: Conducted an IMPACT Team approach assessment to measure changes in supply performance in regions, councils and hospitals that have implemented the IMPACT Team approach		
Objective 4: Strengthen Enabling Environment to Improve Supply Chain Performance	Contributed to the Larger Global Health Supply Chain Community: Planned, organized and facilitated the second annual Tanzania Supply Chain Summit and presented at the Global Health Supply Chain Summit in South Africa	Empowered RPharms to Strengthen Supply Chain Oversight: Strengthened the capacity of Regional Pharmacists to oversee supply chain performance and developed and action plan to further strengthen oversight and performance monitoring	

Figure 2: Key Project Accomplishments

WORK STREAM ACCOMPLISHMENTS

OBJECTIVE I: PROVIDE STRATEGIC PLANNING AND IMPLEMENTATION ASSISTANCE

INTERVENTION I.1 ASSIST LEADERSHIP TO OPERATIONALIZE STRATEGIC PLANS

This project helps stakeholders align national supply chain objectives, strategic documents, and supply chain goals, and holds stakeholders accountable for contributing to strategic plans. The project provided inputs to the Health Sector Strategic Plan draft, ensuring supply chain priorities therein aligned with other policy documents.

Supply chain strengthening efforts in Zanzibar are guided by the Zanzibar Supply Chain Costed Action Plan (ZSCCAP) which will end in 2020. Working with the CPO and the MOH Zanzibar, GHSC-TA-TZ led a workshop to initiate drafting of an updated ZSCCAP, reviewing achievements, identifying gaps, and proposing recommendations for the next ZSCCAP.

The GHSC-TA-TZ Team continues to support emergency preparedness and response to unfolding public health emergencies. Team members participated in USAID Global Health Security Agenda (GHSA) partners meetings, strengthening the Ebola Virus Disease (EVD) preparedness and response activities by

closely coordinating with the World Food Programme (WFP) including assisting the WFP in drafting Terms of Reference (TORs) for the EVD logistics pillar's preparedness and response.

INTERVENTION I.2 PLAN FOR TRANSITION FROM DONOR-FUNDED SUPPORT

This project focuses on integrating health commodities supply chain financing strategies into the country's overall health financing agenda.

During Q1, the team finalized a report on the impact of Direct Health Facility Financing (DHFF) on health commodity availability at health facilities (District hospitals, health centres and dispensaries). The report featured analysis of data from the Facility Financial Accounting and Reporting system (FFARs) and the Electronic Logistics Management Information System (eLMIS) including health commodity spend by source and associated commodity availability both before and after DHFF implementation. Findings included that 22.5% and 23.3% of total expenditures were used to procure health commodities in 2017/18 and 2018/19. In addition, in the two years following implementation of DHFF in 2016 (2017-2018), commodity availability improved from 64% to 76%.

The project continued to provide TA to supply chain financing initiatives including finalizing the Comprehensive Council Health Plans (CCHP) guidelines and advocating for harmonization of expenditure guidelines through CCHP. The project also participated in an actuarial study for Single National Health Insurance (SNHI) which informs Government on the costs of different health packages. The health package is the services that the patient receives at the point of service. The actuarial study uses the costs involved in the provision of such services, which includes human resources, health commodities (both diagnostic and medicines), infrastructure, etc, to help establish the premiums which should be paid per family/individual/government for such packages. The project participated in the actuarial study to ensure the inclusion of commodities or categories of commodities (for example, vertical programs or exempted services) included in the packages.

USAID support for the Zanzibar Logistics Management Unit (LMU), which is integrated into the CPO, is scheduled to end in June 2020. To support this transition, GHSC-TA-TZ met with the Chief Pharmacist and the Director of CMS and agreed to develop a plan to guide transition activities.

Donors presently fund eLMIS oversight, change management, software development, maintenance, and help desk support. GHSC TA drafted an eLMIS transition plan (document) that defines eLMIS "ownership" and estimates the Total Cost of Ownership (TCO) in preparation for transitioning from donor support to the GoT. In Q1, the team met with MOHCDGEC Information, Communication, and Technology (ICT) representatives to review the transition plan and scheduled a follow up meeting in Q2 between USAID and GoT representatives to finalize the transition plan.

To support the transition, the team trained 11 newly recruited LMS mainland staff to provide level 1 and 2 user support. In addition, the team established a testing and training instance of eLMIS hosted at the National Internet Data Centre (NIDC) to assess NIDC's ability to host the system. During the following 8+ months, the NIDC hosted the eLMIS testing and training instance without incident—a precursor to eventually transferring control of the production environment. NIDC's hosting of the testing and training instance of eLMIS has been successful, though near-term opportunities exist to improve customer service, such as proactively informing users of scheduled and unscheduled outages and service disruptions. Finally, given the operational criticality of the eLMIS, GHSC-TA-TZ will work with MOHCDGEC to identify other potential, non-NIDC hosting alternatives the ministry might consider (e.g., eGA or MSD).

OBJECTIVE 2: IMPROVE DELIVERY OF HEALTH COMMODITIES IN SERVICE SITES

INTERVENTION 2.1 STRENGTHENING SUPPLY CHAIN MANAGEMENT INFORMATION SYSTEM (MIS)

GHSC-TA-TZ supports efforts to improve eLMIS data visibility, data quality (including that collected via automated data validation), and use of eLMIS information. Support for eLMIS is done in alignment with the Health Information System (HIS) architecture guidance and the project facilitates integration with MSD Epicor, DHIS2, government facility level systems (GoTHOMIS and Afya care), through the Health Information Mediator and Muungano Gateway interoperability layers.

The project is working to transform the eLMIS from a database used for analysis and reporting into a information source critical to informing operational and financial decision making and whose data visualizations become an integral part of supply chain management and oversight. This complements efforts to promote data use and data informed decision making across the country-wide supply chain. This quarter, the project developed a series of dashboards in eLMIS, based on national supply chain key performance indicators (KPIs), which provide insight into supply chain performance that are shown below in Figure 3 and Figure 4. The percentage of stock availability shown in the figures below are based on the MOHCDEC’s tracer list of 312 commodities.

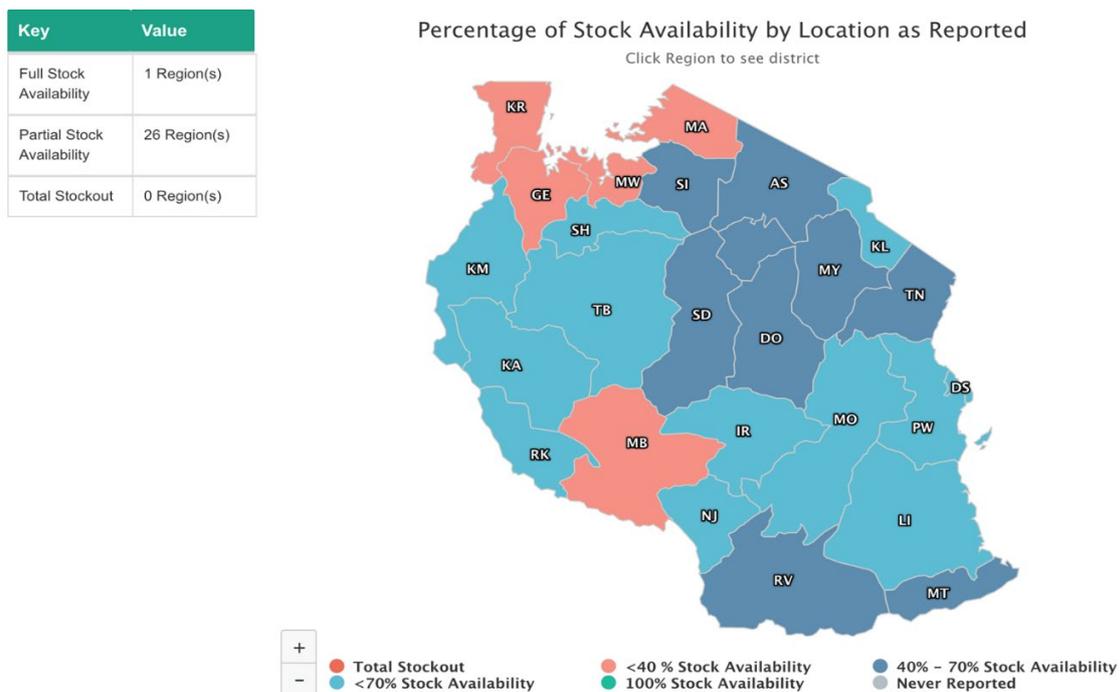


Figure 3: eLMIS Stock Availability by Location Dashboard (National) – 312 tracer commodities

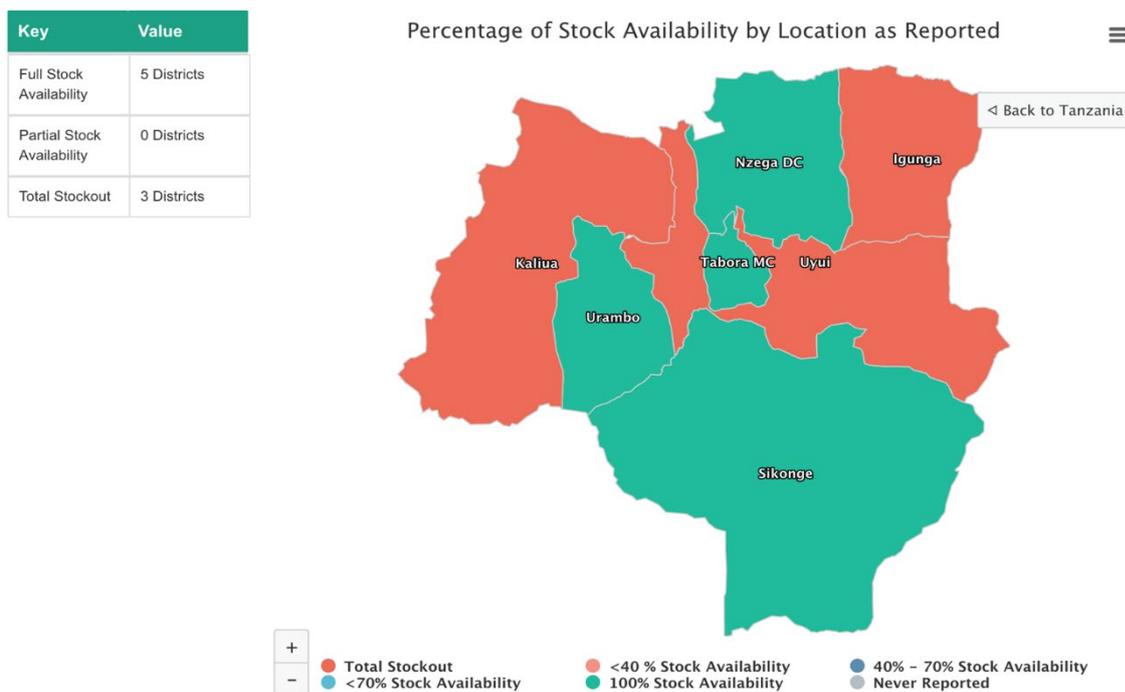


Figure 4: eLMIS Stock Availability by Location Dashboard (Regional) – 312 tracer commodities

GHSC-TA-TZ supported the GoTHOMIS design working session which developed use cases for the pharmacy (inventory) module based on the previously collected requirements.

GoT intends to increase accountability commodity management accountability at all levels of the supply chain and in November 2019 instructed five regions (Singida, Kagera, Geita, Manayara and Dodoma) to have their regional pharmacists review and approve R&Rs prior to submission to MSD. GHSC-TA-TZ completed reconfiguration of eLMIS to enable regional pharmacist review and approval, and monitored its use for the five regions. The effort illuminated several issues including regional pharmacists initially being overwhelmed by the numbers of R&Rs requiring review, and data quality and accuracy issues therein. For example, in Dodoma more than 80% of R&Rs were rejected by regional pharmacists due to data quality and accuracy issues—indicating inability to detect erroneous data entry at council level prior to regional review. In response, GHSC-TA-TZ is developing data validation rules to alert health facility workers and reviewers when developing R&Rs, such that errors are flagged and corrected prior to regional review.

Related KPIs

- Indicator 2.1.1: Percentage of eLMIS issues reported and resolved within 24 hours (83%)
- Indicator 2.3.2: Percentage of facilities submitting timely and complete LMIS report (97%)

INTERVENTION 2.2 STRENGTHEN AND STREAMLINE QUANTIFICATION

GHSC-TA-TZ provides quantification technical assistance and capacity building for both mainland and Zanzibar, with the goal of increasing ownership and sustainability of vertical program and essential health commodity quantification and improving forecast accuracy. During Q1, GHSC-TA-TZ provided TA for the following commodities:

ARVs—Quarterly PipeLine review and Bi-Annual Quantification review

GHSC-TA-TZ facilitated the quarterly ARV PipeLine review followed by the ARV quantification review. The project, with support from the Pharmaceutical and Laboratory Services Unit (PLSU) of NACP, continued to promote programme ownership for PipeLine review process resulting in more active engagement by NACP personnel in the PipeLine review process. The Head Pharmaceutical and Laboratory Services Unit of NACP has emphasized the need for capacity building; in response, project personnel developed guidance to aid ministry staff with the ARV PipeLine quantification review and devoted additional time to reviewing forecasted assumptions, shipment status, projected stock statuses and adjustments related to the ongoing TLD transition. The review also considered inputs/updates from clinical partners with field experience, so as to triangulate forecasts, actual reported consumption, and field experience of clinicians and health facilities as observed directly by clinical partners.

ARVs—TLD and multi-month dispensing

In line with WHO guidance, NACP is introducing TLD as the preferred first line regimen for HIV treatment. Project personnel actively supported TLD transition by analysing TLD supply and demand and attending numerous TLD transition meetings. The transition features four phases (I, II, IIIA and IIIB+C) based on facility size and patient volume. Figure 5 depicts the Planned vs. Actual TLD Transition by Phase.

TRANSITION PHASES		2019										2020							
		MA	AP	MA	JU	JU	AU	SE	OC	NO	DE	JA	FE	MA	AP	MA	JU		
PHASE I	PLAN	↓	41 HFS, RECEIVED 680K TLD																
	ACTUAL	↓																	
PHASE II	PLAN			↓	191 HFS, RECEIVED 1.5M TLD														
	ACTUAL			↓															
PHASE IIIA	PLAN							↓	140 HFS, RECEIVED 1.3M TLD										
	ACTUAL							↓											
PHASE IIIB+C	PLAN																		
	ACTUAL																↓		

Figure 5: TLD Transition Plan vs. Actual by Phase

In addition to the transition to TLD, NACP is planning to implement 6-multi-month dispensing (6MMD). NACP requested that GHSC-TA-TZ conduct an analysis to help determine whether the TLD transition phases could be implemented as planned, and whether 6MMD could be implemented simultaneously. GHSC-TA-TZ considered current stock status, pipeline status, and risks and consequences of delayed shipments for this analysis. A shipment of ~1.6M TLD P/90 was scheduled; data indicated that if this shipment was made available by the end of December 2019, then the available supply could accommodate for continuation of TLD transition to Phase IIIB+C health facilities and support 6MMD for approximately 100,000 eligible patients. Options were then presented to members on how to move forward with 6MMD. Table I shows TLD requirements as of December 2019 including reorders from health facilities that have already transitioned and smart-push for health facilities yet to transition.

Table I: Forecasted TLD Requirements as of December 2019

PHASE	START DATE	HF no.	No. of clients	Jan-2020 action	MOS distributed	%Clients targeted	TLD Qty required (P/30)	TLD Qty required (P/90)		
Phase I	1st MARCH	41	116,237	Reorder	3	100%	348,711	116,237		
Phase II	1st MAY	191	257,256	Reorder	3	100%	771,767	257,256	1,674,358 (P/30)	Sub-total (reorder)
Phase IIIA, >1000	1st JULY	140	217,208	Reorder	3	85%	553,880	184,627	558,119 (P/90)	
Phase IIIB, 500-1000	TBD	218	149,998	Smart push	6	85%	764,990	254,997	2,144,922 (P/30)	Sub-total
Phase IIIC, <500	TBD	2,245	270,575	Smart push	6	85%	1,379,933	459,978	714,974 (P/90)	(smart push)
Total		2,835	1,011,274				3,819,281	1,273,094		

Malaria

GHSC-TA-TZ supported the National Malaria Control Programme (NMCP) commodities quantification including preparation, defining assumptions, holding a quantification workshop, and hosting the final debriefing meeting. The malaria quantification exercise accounted for the updated Malaria Supplementary

Strategic Plan (MSSP, 2018-2020) which calls for increased malaria testing that is expected to increase detection and result in more confirmed malaria cases requiring ACT treatment. In line with prevention strategies outlined in the MSSP, malaria cases are expected to increase until they plateau in 2022 and begin to decline in 2025. This forecasted trend is shown in Figure 6. Figure 7 shows a comparison of monthly consumption from DHIS2 and eLMIS. A deeper analysis of the consumption data from these sources will be completed in Q2.

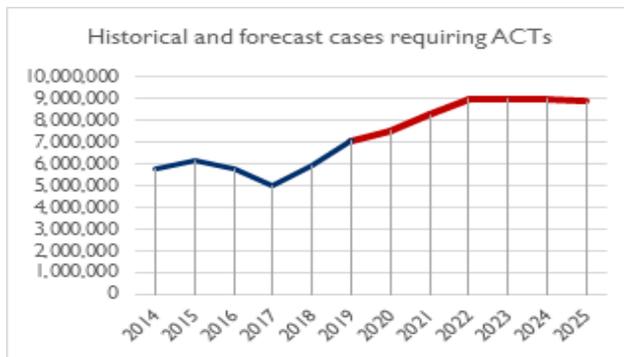


Figure 6: Historical and Forecast Cases Requiring ACTs

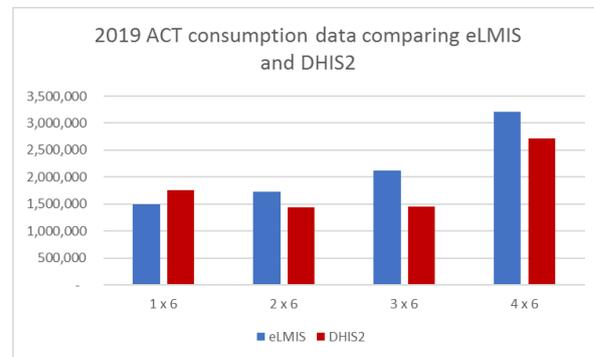


Figure 7: Comparison of DHIS2 and eLMIS Reported Consumption Data from 2019

TB

GHSC-TA-TZ also supported the TB medicines quantification organized by NTLP. The quantification team reviewed previous TB medicines and laboratory commodity consumption, past assumptions and used the QuanTB tool to update forecasts and supply plans. Identified issues and challenges included: low uptake of paediatric DR-TB medicines; significant variations in drug-resistant-TB medicines months of stock leading to rapid stock depletion; potential risk of stock out of GeneXpert cartridge country-wide, and changes to GPSA custom clearance procedures for inbound shipments.

INTERVENTION 2.3: IMPROVE SUPPLY CHAIN PERFORMANCE AGAINST KEY INDICATORS

One of the Holistic Supply Chain Review's (HSCR) highest priority recommendations was increasing the frequency of ordering and resupply for in-country supply chains including the ILS, HIV/AIDS and TB. Increasing ordering and resupply frequency improves supply chain visibility—e.g., an increase from quarterly to monthly ordering and resupply provides twelve data points per year compared to four. The increased availability of supply chain data improves visibility which enables more rapid response to stock imbalances, and reduces minimum and maximum stock levels, inventory carrying costs, storage requirements, and the amount of stock at risk for expiry. GHSC-TA-TZ supported efforts to accelerate order and resupply frequency by providing design support, building consensus on design decisions, and informing stakeholders of process changes associated with the redesigned system prior to and during rollout. In addition, the team worked to institutionalize the collection, review, and use of KPIs to monitor system performance.

Given the central role MSD plays in rollout of the revised ILS, the project started Phase 2 of the MSD zones assessment, identifying actions MSD must take to meet requirements of the redesigned system. From mid-November to mid-December, the project's consultant engaged MSD headquarters stakeholders to assess warehouse operations and processes and utilization of E9 and its various reports, and provided recommendations for the upgrade from E9 to E10. In Mwanza MSD zone, the consultant reviewed the implementation status of recommendations made during the last year's assessment including those made by Mwanza using MSD internal resources. In Tabora, he evaluated human resource capacity and business processes including order receipt and approval, pick, pack, and ship including staging and loading of outbound shipments.

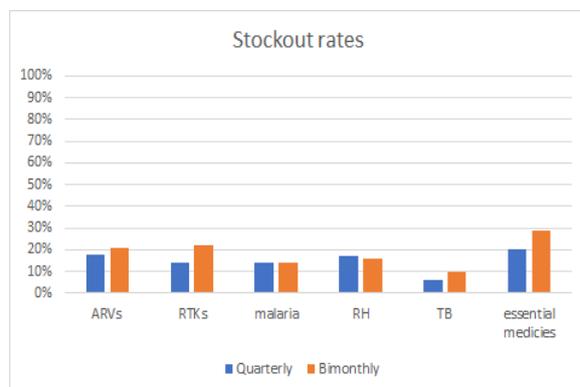
The project supported a two-day workshop on use of LMIS tools to support preparation for and rollout of the redesigned system. Tools and related job aids were updated to align with changes to MSD catalogues, completion of lab standardization, and lessons learned during Phase I of the system redesign implementation in Mwanza zone.

GHSC-TA-TZ staff also provided training on the redesigned logistics system for 235 personnel in Kigoma and Katavi, including registering many participants as eLMIS users and providing eLMIS training for all attendees.

Multi-drug resistant tuberculosis (MDR-TB) medicines are managed outside of the ILS. NTLP previously requested technical support from the project to strengthen the supply chain for MDR-TB medicines. This resulted in an assessment and associated recommendations completed in May 2019. In Q1, GHSC-TA-TZ facilitated a workshop to further optimize the management of MDR-TB medicines. Key consensus decisions reached during this workshop included: shifting the distribution of MDR-TB medicines from central Kibon’goto to MSD zones, mainstreaming the role and responsibilities of managing MDR-TB medicines into the custodians of commodity management, setting maximum-minimum stock levels for different levels, and instituting the monthly MDR-TB reporting form which captures data for both medicines and patients which will be put in the eLMIS.

Finally, the project initiated preliminary preparations for launching the national supply chain KPIs with dissemination planned for Q2. Dissemination will be supported by stakeholder outreach and orientation on the national KPI reporting. The project team will continue to support KPI implementation and associated discussions by MOHCDGC-PSU with various bodies including the Health Commodities and Health Technologies Technical Working Group and other TWGs.

Related KPIs



Indicator 2.3.1: Stock out rate



Indicator 2.3.4: Stocked according to plan

INTERVENTION 2.4 STRENGTHEN LABORATORY SUPPLY CHAIN

GHSC-TA-TZ, in collaboration with MOHCDGEC, PO-RALG, USG and IPs, provides TA to strengthen the in-country laboratory supply chain, focusing on quantification of laboratory commodities, implementation of lab-related recommendations from the HSCR, and network optimization.

This quarter, the project provided TA to NACP on biannual laboratory quantification review covering HVL, HEID, chemistry, CD4, haematology, and consumables commodity categories. This review involved agreeing on new volume split between platforms for HIV viral load and haematology, developing new forecasts based on agreed volume split between platforms, incorporation of developed forecasts, updating eLMIS consumption data, updating commodity stocks from E9, and planning shipments based on the new forecasts in the PipeLine database. Supply plans were created for submission to CMO and donors. Throughout this activity, the team reviewed and incorporated recommendations from PEPFAR

and Global Fund. As discussed in intervention 2.2, the team included a capacity building component promoting government ownership of the process where the team supported order creation for Global Fund funded shipments.

The Laboratory Equipment Management (LEM) module in eLMIS is expected to inform machine placement, provide information on machine functionality, and planned preventive maintenance. The module will inform decisions on reagents distribution/redistribution in addition to providing visibility on:

- approved, contracted machine maintenance vendors
- machines to be eliminated from the system due to end of service life or performance issues
- machine downtime measured by initial report of malfunction/degradation to restoration/resolution

Project personnel shared LEM implementation status with CHAI in October 2019. (During Q1, GHSC-TA-TZ learned that CHAI had been tasked with mapping all health equipment in the country, an activity that potentially duplicated GHSC-TA-TZ LEM efforts. Accordingly, MOHCDGEC directed GHSC-TA-TZ and CHAI officials to meet in October 2019 to discuss the scope of their respective activities, and deconflict any duplication.)

The project provided technical inputs during a stakeholder coordination meeting with Global Fund, PEPFAR UNITAID, and MOHCDGEC focused on aligning support for implementation of laboratory system strengthening activities. The laboratory diagnostic network optimization design was presented and participants agreed to implement associated recommendations. Attendees also agreed that the implementation of LEM module will significantly improve laboratory supply chain management.

INTERVENTION 2.5 SUPPORT OPERATIONAL EXPENSES FOR LMU (ZANZIBAR)

In Zanzibar, the LMU has been successfully integrated under the CPO and is responsible for organizing, monitoring, and supporting Zanzibar's supply chain activities and logistics systems. Four GHSC-TA-TZ staff currently provide operational and technical support to LMU-ZNZ, and will continue to do so until June 2020.

During this quarter, the LMU-ZNZ, with support from project staff, conducted Council level IMPACT Team training for 45 personnel from Unguja and Pemba, namely Urban, West A, West B, Chake Chake and Mkoani. Council IMPACT teams are expected to serve as a link to the National IMPACT Team and trained personnel have already started organizing meetings to discuss supply chain data issues including indicators to be tracked such as stock availability and reporting rate per item.

The LMU-ZNZ, with the CPO conducted eLMIS central edition training for 100 personnel from Central and North A districts and Mnazi Mmoja Hospital. The training also involved staff from nutrition programs after nutrition commodities have been included in ZILS.

The MOH-ZNZ intends to support software infrastructure development in the supply chain, and implement a sustainable eLMIS at all levels of the supply chain, down to the service delivery point level. The LMU-ZNZ supported the eLMIS facility edition assessment, which aimed to determine the availability of the infrastructure and human resources needed to implement the eLMIS facility edition system. During this assessment, thirty-nine (39) health facilities were visited.

In 2019, the Zanzibar Integrated Logistics System (ZILS) was redesigned resulting in increased ordering and distribution frequency, merging of different logistics systems, and revision of minimum/maximum stock levels. The LMU-ZNZ organized training on the revised ZILS SOP manual for 21 personnel from

CMS and select hospitals with the goal of explaining SOP changes so staff can begin to comply with new requirements.

The CPO through LMU developed and disseminated a semi-annual supply chain bulletin communicating supply chain success stories within the Zanzibar supply chain. To strengthen accountability, the CPO, with support from the LMU, conducted a one-day meeting with all pharmacists and pharmaceutical technicians working in the public and private sector in Unguja that focused on professional ethics and attendee roles and responsibilities related to safeguarding the health of Zanzibar citizens.

OBJECTIVE 3: BROADEN STAKEHOLDER UNDERSTANDING AND ENGAGEMENT OF THE SUPPLY CHAIN SYSTEM

INTERVENTION 3.1 SUPPORT MOHCDGEC IN IMPLEMENTING AND IMPROVING RBF SCHEME

The MOHCDGEC, in collaboration with PO-RALG, is implementing a Results-based Financing (RBF) scheme to improve the quality and utilization of health services in primary care facilities. Tanzania’s RBF model links monetary payments to verified achievement of predetermined performance indicators. GHSC-TA-TZ has been supporting RBF implementation at MSD central Strategic Business Units (SBUs) and zonal SBUs (central headquarters, central vertical program, and transport in Mwanza, Tabora and Dar).

This quarter, the project supported MOHCDGEC by facilitating a workshop to align indicators for MSD RBF supply chain component to the system redesign and MSD FY 2019/2020 business plan. Key outputs included: refined strategies for performance improvement, adjusted targets and incentive ceiling for FY19/20, agreed way forward for “web-based system for monitoring performance of RBF supply chain component, and adopted recommendations from RBF process evaluation report.

The project also provided coaching on measuring MSD RBF performance of indicators for Q1, Q2, and Q4¹ 2019 for SBUs zones implementing the RBF scheme (Mwanza and Tabora). Other support included reviewing verification tools, conducting root cause analyses, using available data to support decision making, and reviewing and verifying reports. Additionally, the team analysed MSD order fill rates for ten tracer commodities tracked at health facilities implementing RBF. Figure 8 shows fill rates for tracer commodities at the Tabora zonal SBU during Q4 2019 (July to September 2019).

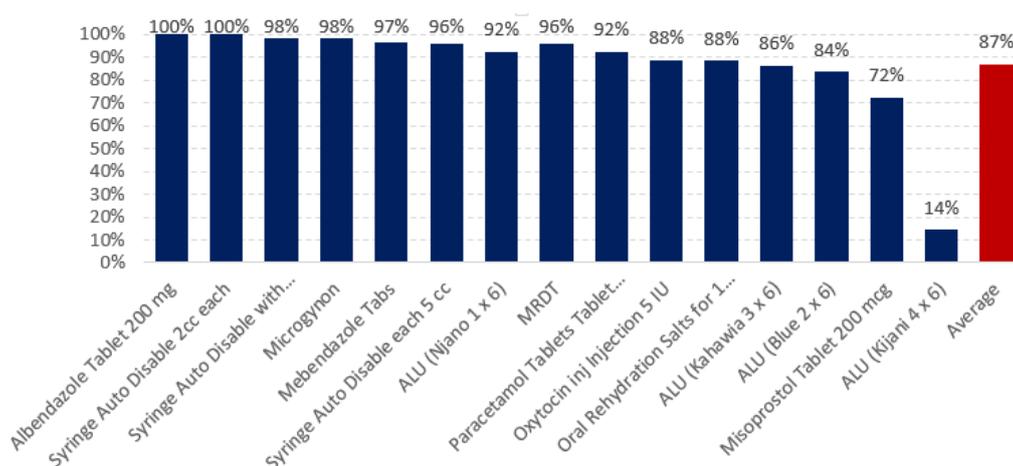


Figure 8: Tracer Commodity Fill Rates Q4 2019 Tabora Zonal SBU

¹ Measurement and reporting of performance indicators were suspended during Q3 2019 due to the reevaluation of the RBF scheme. Regular performance reporting resumed in Q4 2019.

Related KPIs

3.1.1 Percent of RBF performance incentives received by MSD SBUs over specified period: Central SBUs 20.0%, Central VP 51.6%, Transport Unit SBU 0.0%, Mwanza 47.0%, Dar 22.9%, Tabora 0.0% Muleba 66.7%. Data show that SBUs are collecting only a fraction of the potential performance incentives available to them..

INTERVENTION 3.2 INCREASE DATA USE AND IMPROVE DATA QUALITY

GHSC-TA-TZ aims to improve supply chain performance by increasing data-driven decision making by key stakeholders at all levels of the supply chain. The IMPACT team approach is a sustainable structure that encourages commodity managers and other stakeholders like R/CHMTs to use data to check progress against key KPIs, conduct root cause analyses, and develop action plans for improvement.

Following a request from PO-RALG, the project conducted an assessment of IMPACT team approach and progress. This assessment measured changes in supply chain performance in councils, regions, or hospitals that have implemented IMPACT teams, captured staff perspectives on the visibility, quality, and use of supply chain data for identifying and addressing challenges in councils/regions that have received IMPACT team training, documented progress and lessons learned during the implementation of IMPACT team training, and collected feedback and recommendations on the way forward for future IMPACT team activities. A range of methods were used to collect and analyse the data for the assessment including: online surveys of RAS, IMPACT team members, and IMPACT team facilitators; analysis of eLMIS data to assess health commodity availability pre- and post-IMPACT team approach, interviews with key stakeholders, and a workshop to review assessment findings and plan the way forward.

Survey results consistently indicated both team members and facilitators felt the IMPACT approach training was of high quality and beneficial in helping improve supply chain performance. Nearly all persons surveyed felt that the IMPACT approach should continue and even be expanded to facility level. This indicates considerable potential for expanding the use of data in management and oversight throughout the supply chain and that a cross-functional, multidisciplinary team approach to analysing and solving problems is highly successful in this environment. Nearly all respondents felt that the IMPACT approach requires strong managerial or executive sponsorship and oversight and that a focus on sustaining the gains made through the initial training and initial IMPACT Team meetings should be emphasized.

All regions showed improvement in terms of the number of items reported, as well as a decrease in the number of items with no known AMC, reflecting greater visibility and awareness. Although the improvement in commodity availability was minimal, data are increasingly being used to highlight challenges, such as ordering items that are already overstocked.

Following presentations of these assessment findings, the Deputy Permanent Secretary PO-RALG directed all regional and district pharmacists and laboratory technologists to commit to conducting monthly and quarterly meetings with their IMPACT team members. Hospital Section Heads were directed to dedicate managerial hours, which would include to monitoring the implementation of IMPACT Team performance.



Deputy Permanent Secretary PORALG Mrs. Dorothy Gwajima when she was speaking during IMPACT Approach Assessment Findings Presentation Meeting in Dodoma

Related KPIs:

- Indicator 3.2.1: Number of people log into eLMIS (users and level type) (5,200)
- Indicator 3.2.2: Percentage of R&Rs passing data quality check in specified period (89.7%)

INTERVENTION 3.3 INCREASE SKILLS OF KEY COUNTERPARTS, INCLUDING MENTORSHIP OF TRANSITIONED LMU

Capacity building is integrated into many GHSC-TA-TZ activities to enhance the knowledge and skills of Tanzanian health supply chain stakeholders, implementing partner staff, and the larger supply chain community. The project is working with key GoT stakeholders to support development of a health supply chain eLearning platform to enable online learning across the Tanzania health supply chain ecosystem. In addition, the project seconded two personnel to the NACP, for ongoing supply chain capacity building.

OBJECTIVE 4: STRENGTHEN ENABLING ENVIRONMENTS TO IMPROVE SUPPLY CHAIN PERFORMANCE

INTERVENTION 4.1 ESTABLISH A CULTURE OF INFORMATION SHARING

Collaboration with in-country stakeholders is central to the project's approach to supply chain strengthening, decision-making, and management. Coordination groups such as commodity security meetings and TWGs facilitate sharing supply chain data, aligning objectives, and effectively managing commodity-related resources. The project provides quantitative and qualitative data on supply chain performance to these groups to promote information sharing and the use of data for decision making.

The project team participated in a series of NACP meetings in December 2019 designed to assess ARV commodity availability and to collect experiences and inputs on improving commodity availability. These meetings included the HIV commodities annual stakeholders meeting, HIV clinical sub-committee meeting, HIV supply chain sub-committee meeting, and the TLD/DTG and Paediatric ARV transition task team meeting. During these forums, the GHSC-TA-TZ personnel presented data-driven analyses, such as TLD transition stock status, and a supply chain fact sheet for TLD and Paediatric ARV.

Team personnel attended and contributed to the review of 2020/2021 strategic policy priorities during the Health Commodities and Technologies Technical Working Group (HCT-TWG). The strategic policy priorities are based on the recommendations made by participants in the Joint Annual Health Sector Technical Review Meeting.

In collaboration with other stakeholders, the project convened the second Tanzania Health Supply Chain Summit (HSCS) October 15-17, 2019. More than 200 participants attended. During this summit, the theme was "The future of Tanzania Supply Chain Performance-Driven by Data and Innovation". This year's Summit theme compelled attendees to consider how Tanzania's health supply chain community can best leverage the power of high-quality data and inspire innovative approaches to strengthen performance across the end-to-end health supply chain. The Deputy Minister of Health opened the Summit, reflecting the high-level engagement of the GoT. Speakers included representatives from facilities, councils, regions, as well as stakeholders from vertical programs, other supply chain implementing partners, academia, and the private sector. One highlight was the session on Regional Perspectives on Data and Innovation, featuring the CEO from Malawi Central Medical Stores Trust and the CEO from Kenya Medical Supplies Authority. The Deputy Minister from PO-RALG closed the session. The third day of the summit was focused on capacity building sessions, an addition from last year's summit, which was organized in collaboration with the MOHCDEGEC. Sessions included bottom up quantification, system redesign, and analysing eLMIS data. Next year's summit will be held in Dodoma. Results from a post summit participant survey are shown in Figure 9.



Figure 9: Post Summit Satisfaction Survey Results



Hon Dr Faustine Ndugulile (Deputy Minister of health) as he officiates the 2nd Tanzania Health Supply Chain Summit at Serena Hotel in Dar es salaam

In Zanzibar, the project presented its accomplishments and activities planned for 2019/2020 to the MOH ZNZ. Participants included the Minister of Health, Director General-Ministry of Health, Chief Pharmacist-MOH and Director-Central Medical Store. The Minister of Health identified several key issues needing attention that should be considered for technical assistance:

1. improving the quality of collected data
2. building a culture of data use for decision making
3. analysing resource management with a focus on efficiency
4. increasing access to supply chain data at all levels—including high level leadership such as Ministers and Members of Parliament—while reducing the burden of unnecessary or duplicative reporting and consultations while reducing overlap through unification based the best system;

5. identifying sustainability challenges and associated interventions designed to sustain supply chain improvements as donor support declines
6. sustaining the free medical services provision with the increased population and increased demand for health services

The project participated at the Global Health Supply Chain Summit in South Africa from 20th to 22nd Nov 2019 and presented on the “*Impact of data visibility on the availability of anti-TB medicines.*”



GHSC-TA-TZ staff with colleagues from GHSC TA-SA during Global Supply Chain Summit in South Africa, November 2019

INTERVENTION 4.2 STRENGTHEN GOVERNANCE AND ACCOUNTABILITY

With myriad stakeholders involved in supply chain strengthening activities, GHSC-TA-TZ works to align PO-RALG and the MOHCDGEC on supply chain priorities and clarify roles and responsibilities. The project works to institutionalize these roles and responsibilities and strengthen supply chain oversight, particularly at PO-RALG. The multitude of actors in the health sector, including the supply chain space, has the potential to compromise effectiveness, efficiency, and transparency if they are not well coordinated and aligned to key GoT priorities during implementation. In response, the project drafted the *National Supply Chain Implementing Partner Alignment and Coordination Guidelines*, which complement existing guidelines and sets standards that guide decisions, goals, strategies, and actions for implementing supply chain strengthening activities. These guidelines were reviewed and validated during a workshop led by the GoT.

To strengthen governance and accountability, there is increased emphasis on the role of the Regional Pharmacist in ensuring product availability at public sector facilities. During the Regional Pharmacist meeting held in October, the project shared ongoing initiatives involving Regional Pharmacists. As a result of this meeting, an action plan to strengthen oversight and performance of Regional Pharmacists was developed and shared with the MOHCDGEC, Regional Administrative Secretaries, and IPs.

QUARTERLY IMPLEMENTATION CHALLENGES, RISKS, AND MITIGATION MEASURES

Table 2: Challenges, Risks, and Mitigation Measures

RISKS AND CHALLENGES	MITIGATION
MSD is facing significant challenges to rolling out the redesigned logistics system	<ul style="list-style-type: none"> • Intensify support to MSD to identify and implement specific actions needed to help MSD adhere to redesigned logistics system parameters • Regularly communicate identified actions and status of their implementation during system redesign steering committee meetings
Non-functioning supply chain steering committee leaves no governance structure for overall supply chain coordination and accountability	<ul style="list-style-type: none"> • Continue to advocate for restarting and revitalizing the Supply Chain Steering Committee by appealing to higher levels of MOHCDGEC.
Based on the lessons learned from Mwanza, lack of adherence to a coordinated plan and timeframe for rolling out the redesigned system can result in	<ul style="list-style-type: none"> • Continue to advocate for the system redesign technical team to routinely meet and review compliance with the rollout plan • Encourage stakeholders to adhere to the implementation plan

<p>inefficient use of resources and poor system performance</p>	<ul style="list-style-type: none"> • Ensure lessons learned from Mwanza are incorporated into future rollout planning and materials • Elevate issues to the Steering Committee • Conduct pre-assessments of MSD zones prior to rollout to ensure readiness
<p>Directive for Regional Pharmacist to review and approve all R&Rs for a region may increase lead time and compromise system performance</p>	<ul style="list-style-type: none"> • Implement automated data validation checks in eLMIS, starting with facility level so data challenges immediately identified and addressed as they are generated, i.e., before they get to regional level • Add data validation visualizations for the Regional Pharmacist so that any quality issues are easily spotted • Develop orientation/training materials on reviewing and approving R&Rs for Regional Pharmacists
<p>Several dynamic factors in ARV treatment, including TLD transition, transition to paediatric optimal regimens, introduction of new pack sizes, and multi-month dispensing, will disrupt the supply chain, and potentially result in stock imbalances</p>	<ul style="list-style-type: none"> • Participate on the national team coordinating transition of TLD and optimal paediatric regimens • Continue to conduct analyses to ensure decisions and actions are data driven • Promote clear communication and transparency across stakeholders involved with shifting treatments • Closely monitor current stocks of ARVs, along with upcoming shipments, flagging potential supply issues (overstocks or stockouts)
<p>While GoT software developers were trained in the eLMIS code base, they have not addressed Helpdesk tickets, indicating that they may be distracted by other work. Lack of human resources dedicated to eLMIS will be problematic when transitioning eLMIS to full GoT ownership.</p>	<ul style="list-style-type: none"> • Convene a meeting with USAID and GoT to finalize transition plan, with specific focus on those areas of risk/concern such as availability of developers to support Helpdesk tickets • Establish and implement the governance structures described in the transition plan and ensure they are monitoring progress in addressing identified risks/issues
<p>Delayed approval and dissemination of key documents (i.e. the RORE document) impact supply chain performance and the project's ability to provide impactful technical assistance</p>	<ul style="list-style-type: none"> • Hold routine meetings reviewing activity progress. • Elevate issues as appropriate.
<p>Once the LMU staff were transitioned, GHSC-TA-TZ personnel no longer have routine access to previously available data sources including some PMP indicators</p>	<ul style="list-style-type: none"> • Follow official protocols for requesting data and follow up on previously submitted requests

PROJECT MONITORING PLAN

OBJECTIVE	MEASURE	TARGET	REPORTING FREQUENCY	DIRECT OR INDIRECT	Q2 JAN - MAR 2019	Q3 APR - JUN 2019	Q4 JUL - SEP 2019	Q1 OCT - DEC 2019
I) Provide Strategic Planning and Implementation Assistance	I.1.1 Percent of activities carried out in accordance with Costed Implementation Plan (CIP) from HSCR recommendations	100% of CIP activities carried out by GoT by 2019	Semi Annual (starting Year 2)	Indirect	39%		43%	
	I.2.1 Percentage of health commodity needs budgeted to be covered by MoHCDGEC	Positive trend in GOT funding for health commodities	Annual	Indirect			RTKs 0% ARV 4.2% MNCH 3% Family Planning 5.9% Malaria 0.6% EM 41.6%	
	I.2.2 Percentage of MoHCDGEC budgeted amount which is actually disbursed	Positive trend in GOT disbursement for health commodities	Annual	Indirect			RTK 0% ARV 0% MNCH 28.57%	

							Family Planning 32.1%	
							Malaria 176.1%	
							EM 59%	
2) Improve Delivery of Health Commodities in Service Sites	2.1.1 Percent of eLMIS issues reported and resolved within 24 SLA defined performance period	80%	Quarterly	Direct	87%	86%	86%	83%
	2.1.2 Percentage of e-LMIS hosting/operational cost supported by GoT	Positive trend in GoT funding	Annual	Indirect			0%	
	2.2.1 Level of country counterpart ownership in quantification and supply planning	75%	Annual	Direct			84.8%	
	2.2.2 Percent forecast accuracy (by commodity group)	70%	Annual	Direct			ARV 53% RH 81% MALARIA 79% RTK 94%	
	2.3.1 (a) Stock-out rate for tracer commodities	< 5%	Quarterly	Indirect	ARVs 6% RTKs 20% FP 19%	ARVs 11% RTKs 12% FP 22%	ARVs 15% RTKs 17% FP 18%	ARVs 18% RTKs 14% FP 12%

					Malaria 10% EM 20% TB 6%	Malaria 12% EM 22% TB 7%	Malaria 17% EM 18% TB 10%	Malaria 14% EM 20% TB 6%
2.3.1(b) Stock-out rate for tracer commodities (Mwanza Zone)	< 5%	Quarterly	Indirect		ARVs 7% RTKs 7% FP 11% Malaria 8% EM 17% TB -	ARVs 14% RTKs 10% FP 13% Malaria 15% EM 22% TB 11%	ARVs 15% RTKs 25% FP 18% Malaria 18% EM 24% TB 17%	ARVs 21% RTKs 22% FP 16% Malaria 14% EM 29% TB 10%
2.3.2 Percent of facilities sending timely and complete LMIS reports to the central level	80%	Quarterly	Indirect		98%	96%	97%	97%
2.3.3 Number of Artemisinin based combination therapy (ACT), SP and mRDTs treatments purchased in any fiscal year with USG funds that were distributed in this fiscal year	N/A	Annual	Indirect				Awaiting requested figure from GoT	
2.3.4 (a) Commodities stocked according to plan	N/A	Quarterly	Indirect		ARV 32% RTKs 13%	ARV 18% RTKs 18%	ARV 31% RTKs 16%	ARV 19% RTKs 23%

					Cotri susp 19% Cotri tab 21% Male condom 15%	Cotri susp 14% Cotri tab 20% Male condom 13%	Cotri susp 23% Cotri tab 16% Male condom 18%	Cotri susp 21% Cotri tab 19% Male condom 20%
2.3.1(b) Commodities stocked according to plan (Mwanza Zone)	N/A	Quarterly	Indirect		ARV 21% RTKs 25% Cotri susp 19% Cotri tab 20% Male condom 25%	ARV 28% RTKs 21% Cotri susp 24% Cotri tab 21% Male condom 15%	ARV 45% RTKs 51% Cotri susp 24% Cotri tab 30% Male condom 24%	ARV 23% RTKs 24% Cotri susp 19% Cotri tab 16% Male condom 23%
2.3.5 Overall health facility satisfaction rating for supply chain services	N/A	Semi-annual	Indirect		Very Good 10% Good 70% Neutral 19% Poor 1% Very Poor 0%		Awaiting requested figure from GoT	

3) Broaden Stakeholders' Understanding and Engagement of the Supply Chain System	3.1.1 Percent of RBF performance incentives received by MSD SBUs over a specified period	Positive trend on percentage received of the RBF performance	Quarterly	Indirect	N/A	N/A	Central SBU 75% Central VP 41% Transport SBU 0% Mwanza 69.3% Dar 38% Tabora 43.8% Muleba 88.9%	Central SBU 20% Central VP 51.6% Transport SBU 0% Mwanza 47% Dar 22.9% Tabora 0% Muleba 66.7%
	3.2.1 Number of people logging-in into e-LMIS	N/A	Quarterly	Indirect	3,663	4,008	4,649	5,225
	3.2.2 Percentage of R&R passing data quality check in specific period.	N/A	Quarterly	Indirect	84%	86%	85%	89.7%
4) Strengthening Enabling Environments to Improve Supply Chain Performance	4.1.1 Overall rating from key stakeholders on project collaboration and information sharing	N/A	Annually	Indirect			<i>To a "great" or "very great" extent, GHSC-TA-TZ:</i> Influences stakeholders to share data: 79% Shares decision-worthy data: 78% Collaborates with partners: 83%	

ANNEX I. ROOT CAUSE ANALYSIS FOR SELECTED INDICATORS

INDICATOR 2.1.1 Percentage of eLMIS Issues Reported and Resolved within 24 Hours

Performance trends and description: Service level adherence (SLA) for this quarter was 83%, a slight improvement from the previous quarter (81%) and above the target of 80%.

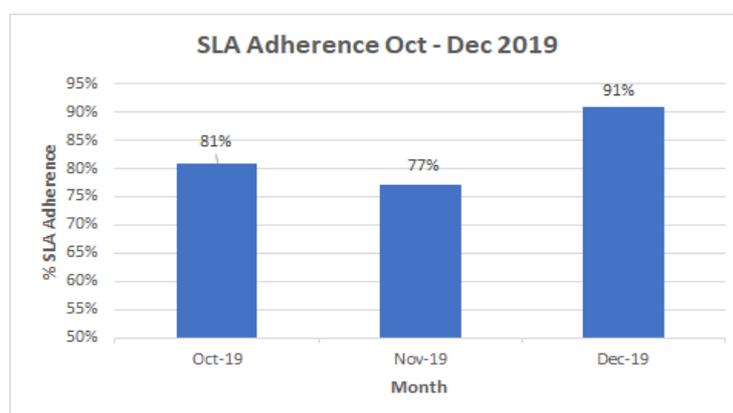


Figure 10: Service Level Agreement (SLA) for October - December, 2019

Root cause analysis: November saw the lowest SLA adherence over the quarter due to an increase in the number of reported issues (i.e., tickets) from end users. Out of the 140 issues the helpdesk team received this quarter, 56 (40%) were received in November. Several reported issues resulted from mismatched pricing and pack size information between eLMIS and MSD's Epicor.

INDICATOR 2.3.1 STOCK OUT RATE & INDICATOR 2.3.4 STOCKED ACCORDING TO PLAN

Stock Out Rate and Stocked According to Plan are closely linked, as stock outs are often a primary driver of commodities being stocked below the minimum prescribed level. The performance trends for indicators 2.3.1 Stock Out Rate and 2.3.4 Stocked According to Plan are discussed below, for both the quarterly and bimonthly system (i.e., Mwanza Zone), followed by a common root cause analysis.

2.3.1 STOCK OUT RATE FOR TRACER COMMODITIES

Performance trends and descriptions: Table 3 shows the overall stock out rates (within the quarterly and bimonthly systems) for each group of tracer commodities: ARVs, RTKs, malaria commodities, RMNCH commodities, TB commodities, and essential medicines. During the reporting period, none of the overall stock out rates met the target of <5%.

Table 3: Tracer Commodity Stock Out Rate Status (Quarterly and Bimonthly Systems)

TRACER COMMODITY GROUP	OVERALL STOCK OUT RATE (THIS QUARTER)		IMPROVEMENT FROM PREVIOUS QUARTER (YES/NO)?		NUMBER OF TRACER COMMODITIES THAT ACHIEVED TARGET	
	QUARTERLY SYSTEM	BIMONTHLY SYSTEM (MWANZA)	QUARTERLY SYSTEM	BIMONTHLY SYSTEM (MWANZA)	QUARTERLY SYSTEM	BIMONTHLY SYSTEM (MWANZA)
ARVs	18%	21%	No (15%)	No (15%)	1 out of 11	1 out of 11
RTKs	14%	22%	Yes (17%)	Yes (25%)	0 out of 2	1 out of 2
Malaria	14%	21%	Yes (17%)	No (18%)	1 out of 10	2 out of 10
RMNCH	17%	16%	Yes (19%)	Yes (18%)	0 out of 14	0 out of 14
TB	6%	10%	Yes (10%)	Yes (17%)	1 out of 4	2 out of 4
Essential medicines	20%	29%	No (18%)	No (24%)	0 out of 10	0 out of 10

2.3.1 A) STOCK OUT RATE FOR TRACER COMMODITIES (QUARTERLY SYSTEM)

The graphs below show the overall stock out rate over the last four quarters for facilities within the quarterly system. Each graph depicts one tracer commodity group (i.e., ARVs, RTKs, malaria commodities, RMNCH commodities, TB commodities, and essential medicines). Notably, the overall stock out rate for ARVs has been increasing over the previous four quarters.

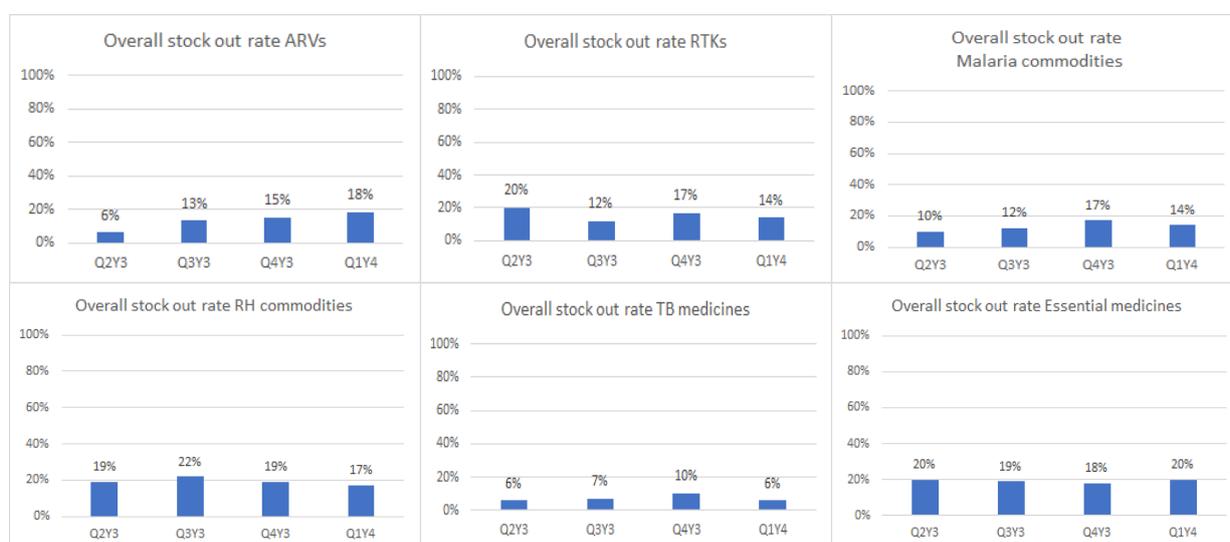


Figure 11: Tracer Commodity Group Stock Out Rates (Quarterly System)

Figure 12 shows a more detailed view of stock out rates within the quarterly system this quarter. Each graph depicts one tracer commodity group (e.g., ARVs, RTKs, malaria commodities, RMNCH commodities, TB commodities, and essential medicines) and shows the stock out rate for each specific tracer commodity within each group. Any individual tracer commodities which achieved the target of <5% stockout are highlighted in green.

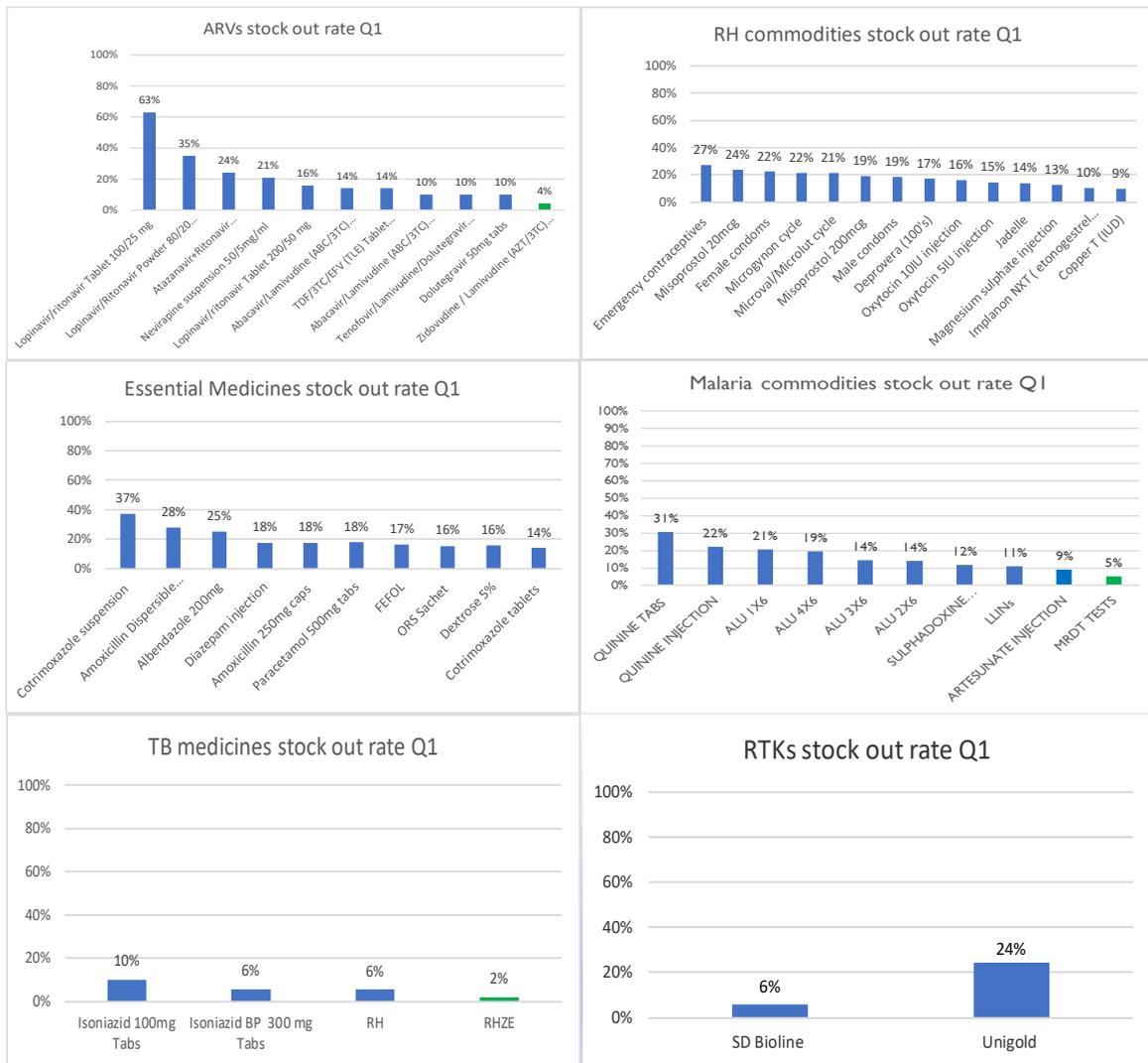


Figure 12: Tracer Commodity Stock Out Rates (Quarterly System)

2.3.1 B) STOCK OUT RATE FOR TRACER COMMODITIES (BIMONTHLY SYSTEM; MWANZA ZONE)

The charts in Figure 13 show the overall stock out rate over the last four quarters for facilities within the bimonthly system (Mwanza zone). Notably, the overall stock out rate for ARVs, malaria commodities, and essential medicines have been increasing over the previous four quarters.

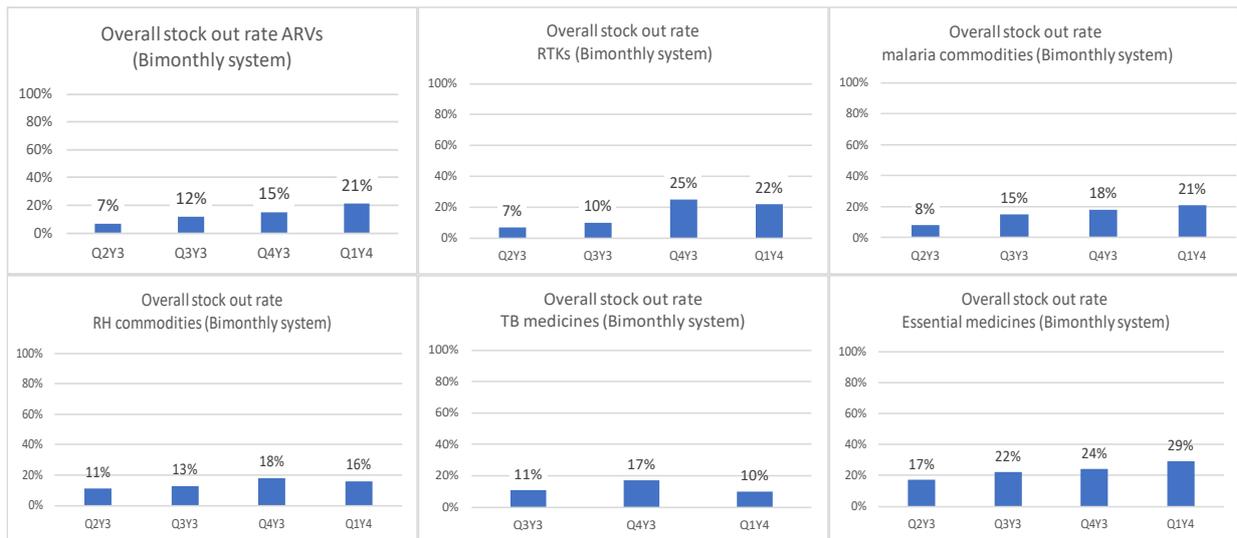


Figure 13: Tracer Commodity Group Stock Out Rates (Bimonthly System)

Figure 14 provides a detailed view of bimonthly system stockout rates. Each chart depicts one tracer commodity group (i.e., ARVs, RTKs, malaria commodities, RMNCH commodities, TB commodities, and essential medicines) and the stock out rates for specific tracer commodities within each group. Any individual tracer commodities which achieved the target of <5% stockout are highlighted in green.

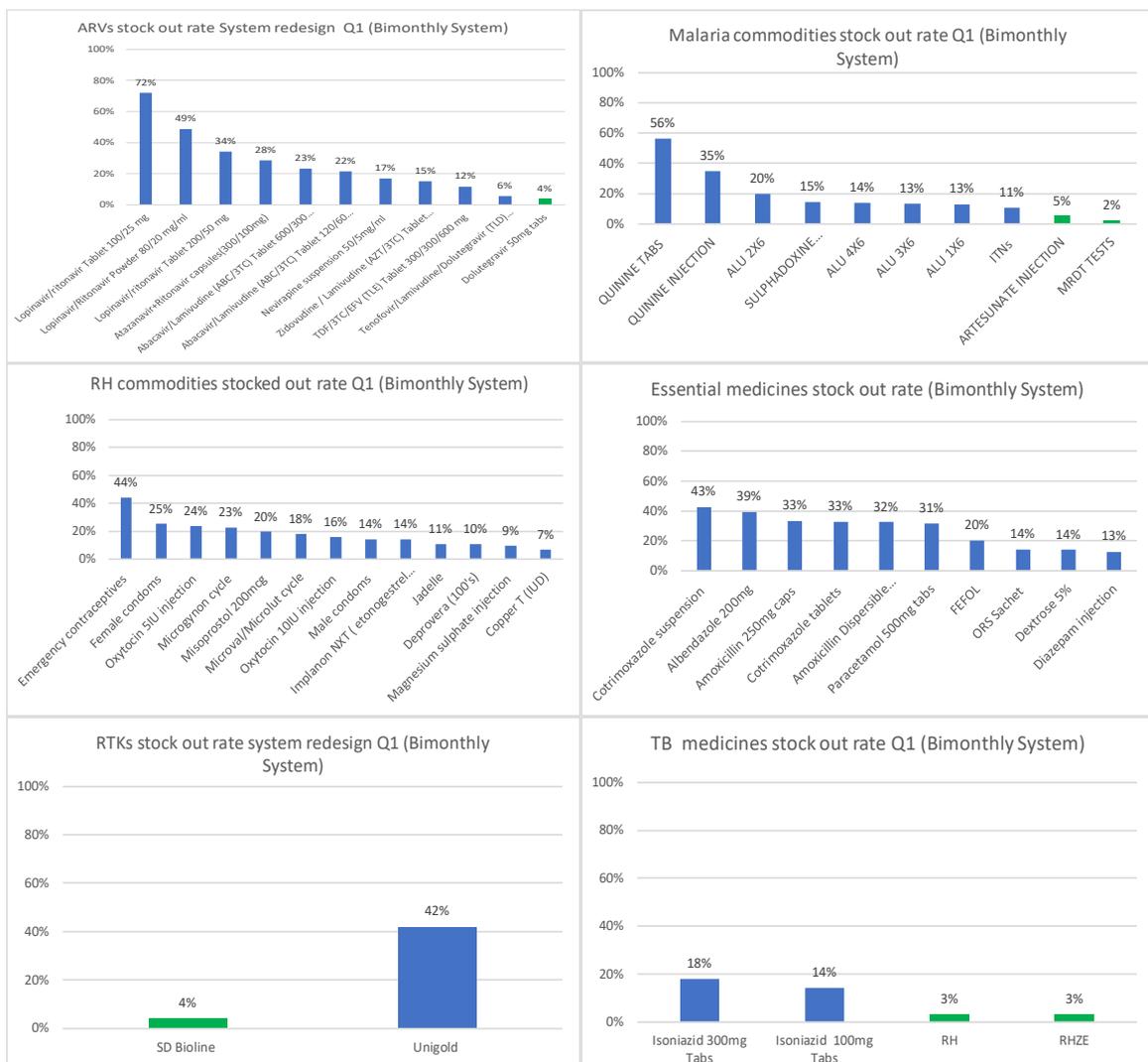


Figure 14: Tracer Commodity Stock Out Rates (Bimonthly System)

2.3.4 A) COMMODITIES STOCKED ACCORDING TO PLAN

Performance trends and description: Table 4 shows the percentage of health commodities stocked according to plan (i.e., stocked within the established min/max stock levels) within both the quarterly and bimonthly systems for each group of tracer commodities: ARVs, RTKs, malaria commodities, RMNCH commodities, TB commodities, and essential medicines. Per indicator definition, data shown is from the most recent reporting period, but is considered representative of other reporting groups.

Table 4: Tracer Commodity Stocked According to Plan (Quarterly and Bimonthly Systems)

TRACER COMMODITY GROUP	COMMODITIES STOCKED ACCORDING TO PLAN (THIS QUARTER)		IMPROVEMENT FROM PREVIOUS QUARTER (YES/NO)?	
	QUARTERLY SYSTEM	BIMONTHLY SYSTEM (MWANZA)	QUARTERLY SYSTEM	BIMONTHLY SYSTEM (MWANZA)
ARVs	19%	23%	Yes (16%)	Yes (22%)
RTKs	22%	24%	Yes (18%)	Yes (22%)
Malaria	20%	25%	Yes (19%)	Yes (24%)
RMNCH	20%	25%	Yes (18%)	Yes (24%)
TB	26%	25%	No change (26%)	Yes (22%)
Essential medicines	21% (tabs) 19% (suspension)	19% (tabs) 16% (suspension)	No (23%) tabs Yes (16%) suspension	No (24%) tabs No (30%) suspension

2.3.4 A) COMMODITIES STOCKED ACCORDING TO PLAN (QUARTERLY SYSTEM)

Figure 15 shows the overall percentage of tracer commodities stocked according to plan in the quarterly system for the previous four quarters. The charts in Figure 15 depict one tracer commodity group (i.e., ARVs, RTKs, malaria commodities, RMNCH commodities, TB commodities, and essential medicines).

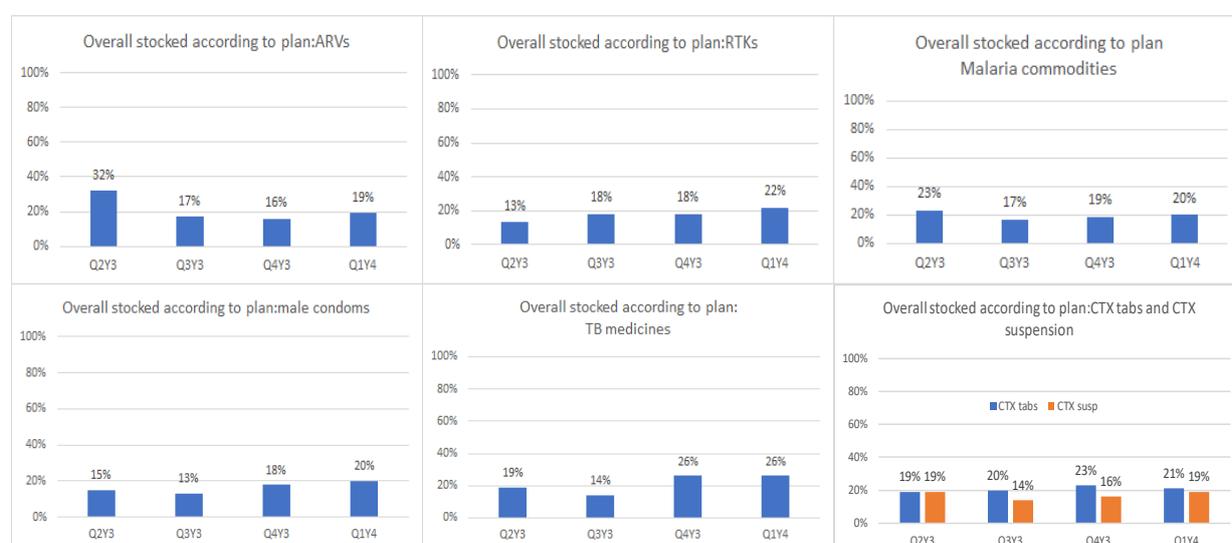


Figure 15: Tracer Group Stocked According to Plan Charts (Quarterly System)

The charts in Figure 16 provide a more detailed view of the overall percentage of commodities stocked according to plan within the quarterly system. Each chart depicts one tracer commodity group (i.e., ARVs, RTKs, malaria commodities, RMNCH commodities, TB commodities, and essential medicines) and shows the percentage stocked according to plan (i.e., between min and max stock levels), as well as other stock instances, to paint a more complete picture of overall performance.



Figure 16: Tracer Group Stock Status (Quarterly System)

2.3.1 B) STOCKED ACCORDING TO PLAN (BIMONTHLY SYSTEM; MWANZA ZONE)

The charts in Figure 17 show the overall percentage of tracer commodities stocked according to plan in the bimonthly system over the previous four quarters. Each chart depicts one tracer commodity group (i.e., ARVs, RTKs, malaria commodities, RMNCH commodities, TB commodities, and essential medicines).

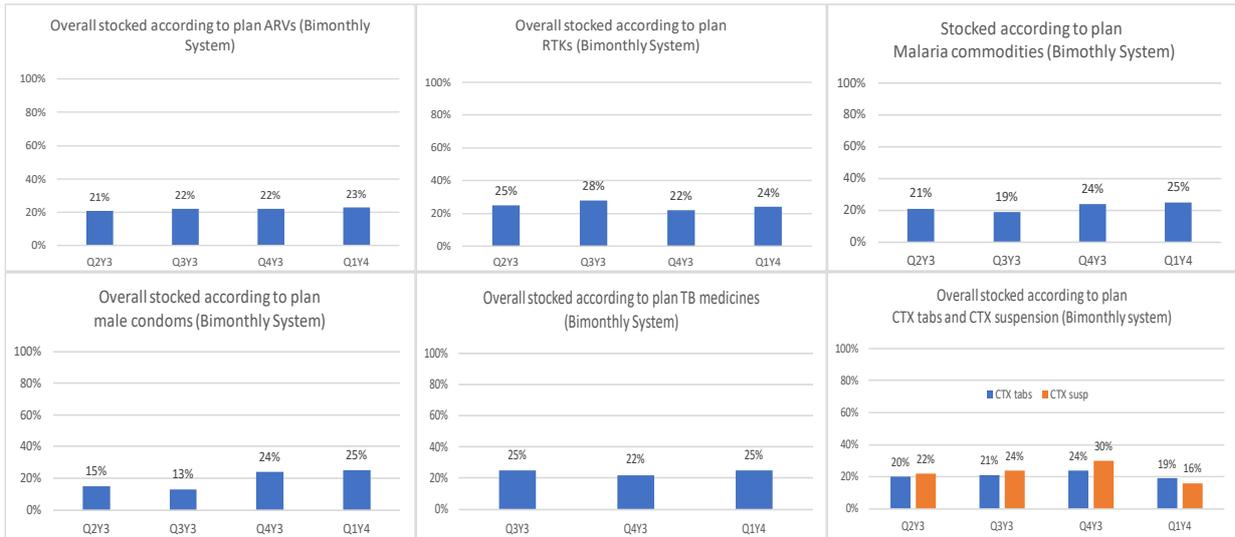


Figure 17: Tracer Group Stocked According to Plan Charts (Bimonthly System)

The charts in Figure 18 provide a more detailed view of the overall percentage of commodities stocked according to plan within the bimonthly system this quarter. Each chart depicts one tracer commodity group (i.e., ARVs, RTKs, malaria commodities, RMNCH commodities, TB commodities, and essential medicines) and shows the percentage stocked according to plan (i.e., between min and max stock levels), as well as other stock instances, to paint a more complete picture of overall performance.

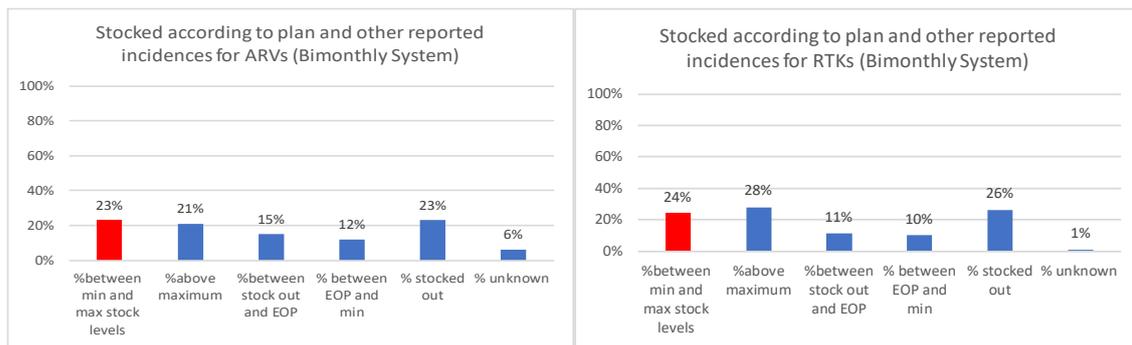




Figure 18: Tracer Group Stock Status (Bimonthly System)

Root cause analysis: National level shortages and stock outs affect both the quarterly and bimonthly systems and are described in Table 5. One factor that has contributed to stockout rates across commodities is that incoming shipments are being held up in the clearance process at ports, in part due to the changing/transitioning of clearing agents.

Table 5: Root Cause Analysis of Tracer Commodity Stock Out Rates and Percentage Stocked According to Plan (Quarterly and Bimonthly Systems)

Tracer commodity group	Root cause analysis
ARVs	Paediatric formulations (especially Lopinavir/Ritonavir 100/25mg tabs, Lopinavir/Ritonavir 80/20mg/ml and Nevirapine suspension) as well as second line adult regimens have had erratic availability. Lopinavir/ritonavir is a key component of optimized paediatric regimens, which are now being rolled out. Consumption of these products was higher than anticipated, reflecting a more rapid rollout. The resulting shortages were further affected due to global availability of Lopinavir/ritonavir, so emergency shipments were challenging to schedule
RTKs	National stock outs of Unigold continue to be a challenge. Specifically, there were shortages of Unigold in November 2019 with only 0.1 MOS available. A Global Fund shipment of 22,000 kits and a PEPFAR shipment of 9,000 kits of Unigold were delivered in December 2019.
Malaria	Not all facilities manage all presentations of ALU, which continues to be an ongoing challenge. Differences in units of reporting continue to create data quality issues. Also, Quinine and SP are saleable commodities at MSD that facilities must pay for, and facilities may not prioritize purchasing these commodities. Furthermore, SP has been stocked out since September 2019, however a small shipment (~4 MOS) was procured with GoT funding and is expected in December 2019. Several Global Fund shipments of ACTs were also expected in December 2019 and January 2020.
RMNCH (family planning)	Although data indicates emergency contraceptives (Postinor 2) are the main contributor to the overall stock out rate, a number of facilities do not report on the item, implying they don't use (or stock) it. National shortages and stock outs continue to be a problem. As of 31st December 2019, all zones were stocked out of female condoms. As of 23rd December 2019, the fill rate for

	family planning commodities at MSD was 50%, which further indicates shortages at the national level and, consequently, at health facilities.
TB	There have been shortages of TB medicines at MSD central, especially Isoniazid 100mg and Isoniazid 300mg. The country is moving towards implementing Isoniazid Preventive Therapy (IPT), which is given to HIV clients. The implementation of IPT was faster than anticipated and suffered from lack of coordination across clinical and supply chain partners. Towards the end of October 2019, an order of Isoniazid 100mg was received at MSD central, resulting in increased consumption due to stock outs of Isoniazid 300mg. In November and December 2019, Isoniazid 300mg was received which is under distribution.
Essential medicines	Most essential medicines are normal MSD saleable items for which health facilities have to pay. If health facilities do not allocate sufficient funds for the purchase of essential medicines, shortages and stockouts could result at the facility level. In October 2019 there were only 2 MOS of both FEFOL and Amoxicillin DT (although these commodities are monitored under the RCHS program). The availability of Cotrimoxazole (especially cotrimoxazole suspension) has been a challenge since the previous financial year. At the facility level, Amoxicillin and Cotrimoxazole are considered as one item in the 30 monitored essential medicine tracer commodities, hence facilities can opt to stock Amoxicillin instead of Cotrimoxazole, and Cotrimoxazole is not necessarily prioritized when facilities purchase essential medicines using complementary funds. An IMPACT assessment meeting also revealed that facilities often order certain commodities even if they are overstocked, which affects quantification and the misuse of funds.

Remedial actions: GHSC-TA-TZ routinely alerts MOHCDGEC and other applicable stakeholders to potential stock outs and stock imbalances and works develop appropriate remedial actions including those listed below which were performed during QI:

- Conducting routine PipeLine reviews and quantification reviews, highlighting any changes that should be made to shipments to ensure consistent supply,
- Advising programs to carry out redistribution of stocks,
- Providing technical input to commodity security meetings, such as RCHS commodity security meetings, where funding gaps are highlighted, and
- Implementing IMPACT teams, a structure for teams to routinely review their supply chain data, highlight challenges, conduct root cause analysis and develop action plans. During IMPACT assessment, the project presented to Regional and District pharmacists stock availability indicator with a focus on essential medicines. It was observed that many facilities place orders from MSD while being overstocked, which may reflect a misuse of funds.

INDICATOR 2.3.2 PERCENTAGE OF FACILITIES SUBMITTING TIMELY AND COMPLETE LMIS REPORT

Performance trends and description: Facilities and respective R/CHMTs which still report on the quarterly system have an average of 97%, which exceeds the target of 80% and indicates a slight improvement from the previous quarter (96%)(Figure 19). For facilities reporting on the bimonthly system, their performance for this quarter was 99% timeliness (Figure 20).

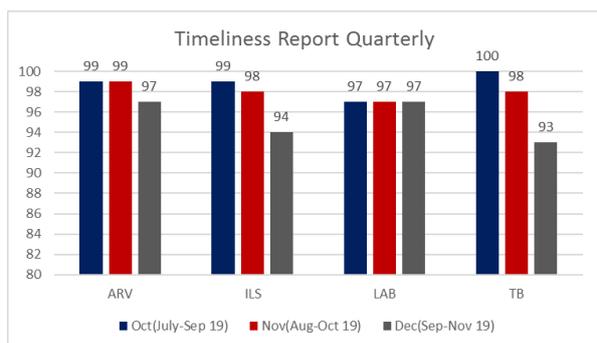


Figure 19: R&R Submission Timeliness (Quarterly System)

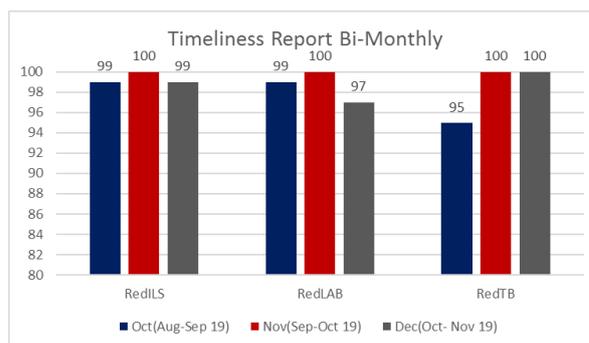


Figure 20: R&R Submission Timeliness Bimonthly System (Mwanza Zone)

Root Cause Analysis: In December 2019, Kilombero council had the lowest R&R submission timeliness (25%) for facilities which still submit paper-based reports. Submission delays resulted from flooding which prevented health facilities from transporting paper R&Rs on schedule.

INDICATOR 3.1.1 PERCENT OF RBF PERFORMANCE INCENTIVES RECEIVED BY MSD SBUS OVER SPECIFIED PERIOD

Performance trends and Description: Incentives received at central level SBUs include total incentives received for central HQ, VP, and transport units while zonal level SBUs include total amount received at Mwanza zone, Dar zone, Tabora zone and Muleba sales point. Percentage of incentive received dropped from 54% in April - June (2019) to 33% in July - September for central level SBUs, and 58% in April - June 2019 to 32% in July - September for zonal level SBUs. Figure 21 shows trends in incentives received by quarter.

Root Cause Analysis and Remedial actions: Declines in incentives received at zonal level SBUs has been mostly attributed by Tabora not being able to perform above the baseline on all four monitored indicators. This occurred due to an electronic system failure where orders failed to convert on time from eLMIS to Epicor 9 which slowed order processing and resulted in extended order lead times. Expiry rate measures were affected by changes in treatment protocols at health facilities involving some vertical program items and changes to laboratory machines at health facilities, which resulted in lower demand for laboratory reagents such as ABX. Furthermore, some health facilities reported insufficient funds which adversely impacted order fulfilment and made it difficult to meet actual demand.

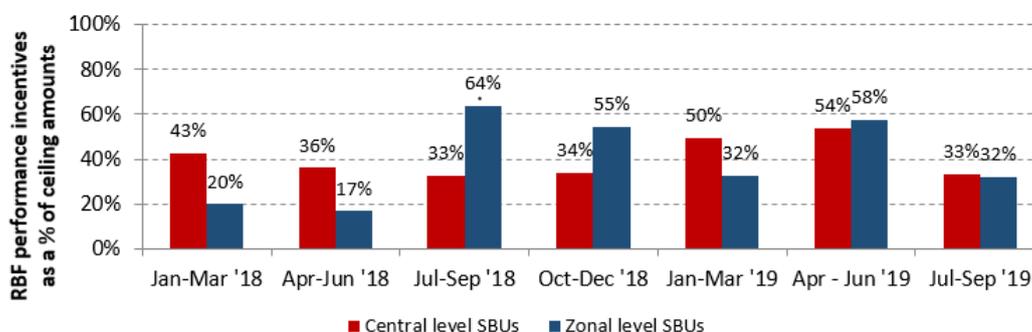


Figure 21: RBF Performance as a Percentage of Total Ceiling

GHSC TA - TZ recommended MSD initiate a quarterly analysis of the effect of insufficient funds on order fill rates and inform management of the findings. Other recommendations included: focusing on maintaining availability of all priority commodities monitored by the RBF scheme, optimizing warehouse

layout, and continuing the focus on First Expiry First Out (FEFO). These will help improve performance on RBF indicators, especially order fill rate, inventory accuracy rate, and expiry commodity rate.

INDICATOR 3.2.1 NUMBER OF PEOPLE WHO LOG INTO ELMIS (USERS AND LEVEL TYPE)

Performance trends and Description: The number of users who log in into the eLMIS continues to increase at each level due to ongoing initiatives led by MOHCDGEC and PORALG in collaboration with supply chain stakeholders (Figure 22). This quarter, Figure 23 shows an increase of more than 500 new logins compared to the previous quarter.

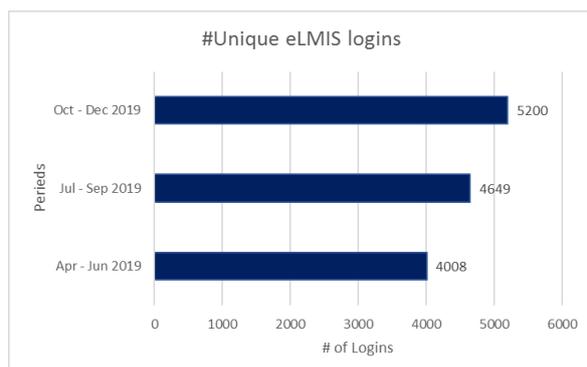


Figure 22: Trends in unique eLMIS logins

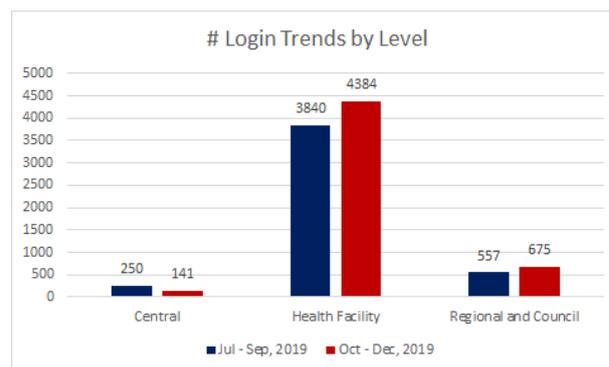


Figure 23: User logins by level Q4FY19 and Q1FY20

Root Cause analysis: During November 2019, two councils in Tabora zone were trained in preparation for implementation of the system redesign. Most of these users were from the health facilities with a few from councils. Additionally, the development of eLMIS dashboards and success of the IMPACT team approach in councils and regions has resulted in increased eLMIS use as commodity managers and other personnel increasingly access eLMIS data to better manage supply chain performance. Finally, development of more user-friendly reports requiring less manual filtering for health facilities and national level reports will similarly increase eLMIS use.

ANNEX 2. QI FY2020 TRAINING AND TRAVEL

A list of GHSC TA - TZ training evolutions and travel is provided in Table 6 below.

Table 6: Training and Travel Summary

Date	Purpose	Responsible GHSC staff
1-4 Oct 2019	Supported design workshop for GoTHOMIS focusing on pharmacy (inventory) module	Ian Manyama
30 Oct-1 Nov 2019	Participated in IMPACT approach assessment meeting which assessed gaps, lessons learnt and areas of improvement in relation to the IMPACT approach in Dodoma Region	Wema Kamuzora, Sono Kusekwa, Peace Nyankojo, Vicent Manyilizu and Ondo Baraka
5-9 Nov 2019	Conducted a workshop for optimizing the management of MDR TB medicines in Morogoro	Vicent Manyilizu and Alfred Mchau
11 Nov 2019	Attended malaria quantification debriefing in Dodoma	Naomi Printz
11-12 Nov 2019	Participated in ARVs quantification review in Dodoma	Nabila Hemed
11-19 Nov 2019	Support System Redesign training for two remaining councils of Tabora zone	Evince Nkya
11-15 Nov 2019	Participated in Results Based Financing (RBF) verification of MSD Tabora SBU against four supply chain indicators namely Order Fill Rate, Inventory accuracy rate, Expired commodity rate and Order Lead time	Michael John
12-15 Nov 2019	Participated in Results Based Financing (RBF) verification of MSD Mwanza SBU against four supply chain indicators: Order Fill Rate, Inventory accuracy rate, Expired commodity rate and Order Lead time	Wema Kamuzora
19-23 Nov 2019	Attended the Global Health Supply Chain Summit in Johannesburg South Africa	Vincent Manyilizu, Naomi Printz and Mavere Tukai
25-29 Nov 2019	Supported training for eLMIS Level 1 and 2 support staff (8 MOHCDGEC, 2 District Pharmacist [Kinondoni & Lushoto] and 1 from Implementing Partner	Evince Nkya
3-5 Dec 2019	Participated in NTLP Quantification review in Morogoro	Nabila Hemed
10-13 Dec 2019	Participation in finalization of the National health supply chain partner alignment and coordination guideline in Morogoro	Hubert Assenga, Michael Kishiwa, Mavere Tukai
12-13 Dec 2019	HIV Commodities Annual Stakeholders meeting	Nabila Hemed, Albertho Chengula
16 Dec 2019	HIV clinical sub-committee meeting in Dodoma	Nabila Hemed
17 Dec 2019	HIV supply chain committee meeting in Dodoma	Nabila Hemed
18-19 Dec 2019	TLD transition task team meeting in Dodoma	Nabila Hemed
19 Dec 2019	Meeting to discuss collaborative implementation of GHSC-TA-TZ 2019/2020 approved work plan activities with MOHCDGEC-PSU in Dodoma	Hubert Assenga, Alfred Mchau, Irene Mauya, Peace Nyankojo, Nabila Hemed
11-13 Dec 2019	Joined USAID PMI team's field visit as well as participated in ZAMEP and CMS meetings in Zanzibar. The visit also provided an opportunity to share a brief overview on areas that GHSC-TA-TZ is providing technical support to RGOZ	Peace Nyankojo, Naomi Printz