USAID GLOBAL HEALTH SUPPLY CHAIN PROGRAM
Procurement and Supply Management

FISCAL YEAR 2024

QUARTERLY REPORT | QUARTER 1

OCTOBER 1, 2023 TO DECEMBER 31, 2023

USAID FROM THE AMERICAN PEOPLE

PEPFAR U.S. President's Emergency Plan for AIDS Relief

PMI U.S. PRESIDENT'S MALARIA INITIATIVE LED BY USAID FROM THE AMERICAN PEOPLE CDC

FISCAL YEAR 2024

QUARTERLY REPORT

October 1, 2023 to December 31, 2023

Contract No. AID-OAA-I-15-00004

The USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project is funded under USAID Contract No. AID-OAA-I-15-00004. GHSC-PSM connects technical solutions and proven commercial processes to promote efficient and cost-effective health supply chains worldwide. Our goal is to ensure uninterrupted supplies of health commodities to save lives and create a healthier future for all. The project purchases and delivers health commodities, offers comprehensive technical assistance to strengthen national supply chain systems and provides global supply chain leadership.

GHSC-PSM is implemented by Chemonics International, in collaboration with Arbola Inc., Axios International Inc., IDA Foundation, IBM, IntraHealth International, Kuehne + Nagel Inc., McKinsey & Company, Panagora Group, Population Services International, SGS Nederland B.V., and University Research Co., LLC. To learn more, visit ghsupplychain.org.

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ACRONYMS

3HP	isoniazid and rifapentine (combination treatment for tuberculosis)
3PL	third-party logistics
ABC	activity-based costing
ABM	activity-based management
ACT	artemisinin-based combination therapy
AHD	advanced HIV disease
AIDC	automatic identification and data capture
AL	artemether-lumefantrine
AMF	Against Malaria Foundation
API	active pharmaceutical ingredient
ARPA	American Rescue Plan Act
ART	antiretroviral therapy

ARTMIS	Automated Requisition Tracking Management Information System
ARV	antiretroviral
BHA	Bureau of Humanitarian Assistance
BMGF	Bill & Melinda Gates Foundation
CAB-LA	Long-acting cabotegravir
CAD	Consumption Anomaly Detection
CAPA	corrective and preventive action
CARISCA	Center for Applied Research and Innovation in Supply Chain-Africa
CDC	Centers for Disease Control and Prevention
CHAI	Clinton Health Access Initiative
CHW	community health worker
CMS	Central Medical Store
COE	Center of Excellence

COVID-19	novel coronavirus
CS	contraceptive security
CSI	Contraceptive Security Indicators
CSL	Commodity Security and Logistics Division
DAP	delivered at place
DCP	decentralized procurement
DDP	delivery duty paid
DMPA	depot medroxyprogesterone acetate
DNO	diagnostic network optimization
DOT	Dispatch Optimizer Tool
DRC	Democratic Republic of the Congo
DSF	Family Health Directorate

DTG	dolutegravir
E4H	Evidence for Health
EID	early infant diagnosis
eLMIS	electronic logistics management information system
ENAP	Every Newborn Action Plan
ePOD	Electronic Proof of Delivery
EPI	Expanded Programme on Immunization
ePL	ePackingList
EPPQ	equipment planning and placement questionnaire
EUV	end-use verification
EWEA	early warning, early action
FASP	forecasting and supply planning
FDC	fixed-dose combination

Fe	fumarate
FMEA	failure modes and effect analysis
FP/RH	family planning/reproductive health
FPSRS	Family Planning Stockout Reduction Strategy
FTO	Francophone Task Order
FY	fiscal year
GDSN	Global Data Synchronization Network
GHS	Ghana Health Service
GHSC-PSM	USAID Global Health Supply Chain Program-Procurement and Supply Management project
GHSC-QA	USAID Global Health Supply Chain Program-Quality Assurance project
GHSC-RTK	USAID Global Health Supply Chain Program-Rapid Test Kit project
GHSC-TA	USAID Global Health Supply Chain Program-Technical Assistance project
GIS	geographic information system

GLN	Global Location Number
GMM	General Membership Meeting
GNI	gross national income
GSC	global supply chain
GTIN	Global Trade Item Number
HDP	hypertensive disorders of pregnancy
iCCM	integrated community case management
IDIQ	indefinite delivery, indefinite quantity
ITP	invoice-to-pay
IUD	intrauterine device
KSM	key starting material
LGA	local government area
LLIN	long-lasting insecticide-treated net

LMIS	logistics management information system
LQAG	LLIN Quality Assurance Group
MCH	maternal and child health
mCPR	modern contraceptive prevalence rate
MIS	management information system
MMD	multi-month dispensing
MMV	Medicines for Malaria Venture
MOH	Ministry of Health
MOHSS	Ministry of Health and Social Development
MOSAIC	Maximizing Options to Advance Informed Choice for HIV Prevention
mRDT	malaria rapid diagnostic test
MSD	Medical Stores Department
MSF	Médecins Sans Frontières

MTaPS	Medicines, Technologies and Pharmaceutical Services
NASHCOP	National AIDS & Hepatitis Control Program
NFO PMU	non-field office program management unit
NSCA	National Supply Chain Assessment
OC	oral contraceptive
ONPCC	National Office for Pharmaceutical and Chemical Products
OOS	out-of-specification
ORS	oral rehydration salts
OTD	on-time delivery
OTIF	on-time, in-full delivery
pALD	pediatric abacavir/lamivudine/dolutegravir
P&L	profit and loss
PBO	piperonyl butoxide

PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PLHIV	people living with HIV
PMI	U.S. President's Malaria Initiative
PO	purchase order
PPB	Pharmacy and Poisons Board
PPH	postpartum hemorrhage
PPMRm	Procurement Planning and Monitoring Report for malaria
PrEP	pre-exposure prophylaxis
PRH	Population and Reproductive Health
PSA	procurement service agent
Q	quarter
QA	quality assurance
QAT	Quantification Analytics Tool

QC	quality control
RCE	Regional Center of Excellence
RDC	regional distribution center
RFP	request for proposal
RHSC	Reproductive Health Supplies Coalition
RHCS	reproductive health commodity security
RMS Ltd	Rwanda Medical Supply Ltd
RO	requisition order
RTK	rapid test kit
SAHPRA	South African Health Products Regulatory Authority
SAM	Sourcing Assistance Messenger
SC	subcutaneous
SCM	supply chain management

SDP	service delivery point
SMO	social marketing organization
SOP	standard operating procedure
SP	sulfadoxine-pyrimethamine
SPAQ	sulphadoxine-pyrimethamine + amodiaquine
SSNBs	small and sick newborns
TA	technical assistance
TB	tuberculosis
TE	tenofovir/emtricitabine
TL	tenofovir/lamivudine
TLD	tenofovir/lamivudine/dolutegravir
TO	task order
TPT	TB preventive treatment

TRVST	Traceability and Verification System
TWG	technical working group
TXA	tranexamic acid
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USFDA	U.S. Food and Drug Administration
USG	U.S. Government
VAN	Global Family Planning Visibility and Analytics Network
VL	viral load
VMI	vendor-managed inventory
VMMC	voluntary medical male circumcision
VMS	vendor-managed solutions

VSI	vendor-stored inventory
VTI	Verification and Traceability Initiative
WFD	workforce development
WHO	World Health Organization
ZAMMSA	Zambia Medicines and Medical Supply Agency

EXECUTIVE SUMMARY

The USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project, funded by the U.S. Agency for International Development (USAID), is pleased to present this report summarizing our work and performance for quarter 1 (Q1) fiscal year 2024 (FY 2024). The project provides lifesaving medicines and other health commodities. GHSC-PSM builds efficient, reliable, and cost-effective supply chains to deliver these drugs and health supplies for the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the U.S. President's Malaria Initiative (PMI), USAID programs in voluntary family planning and reproductive health (FP/RH), and the Agency's program in maternal, newborn, and child health (MNCH), which share the cost of the project. This report also describes BUSAID's response to the novel coronavirus (COVID-19).

GHSC-PSM Life of Project Fast Facts

- Delivered **18.4 million patient years of tenofovir/lamivudine/dolutegravir (TLD) treatment**
- Delivered **547 million antimalarials to treat malaria infections**
- Delivered contraceptives to country FP programs to provide an estimated potential **104 million couple-years** of protection
- Delivered a total of **$28.2 million in MNCH commodities**
- Supported **47 countries** with technical assistance

Q1 PERFORMANCE AND PROGRESS HIGHLIGHTS

TRANSITION PLANNING FOR NEXTGEN

GHSC-PSM continues to make progress in deploying transformative supply chain solutions while laying a strong foundation for a successful transition to the USAID Next Generation Global Health Supply Chain (NextGen) projects. Preparing for this transition remains a focus in FY 2024.

In Q1, GHSC-PSM continued planning and preparing for the transition to the NextGen suite of projects and other follow-on mechanisms. GHSC-PSM began discussions with Deloitte, at the direction of USAID, about Deloitte's work to stand up the Control Tower for NextGen. The project made progress on its 29 country transition plans and submitted them for Mission review and COR approval. GHSC-PSM, in joint transition-focused meetings with USAID, discussed takeaways from developing country transition plans and proposed a process to review and update these plans. These meetings also addressed the project's proposed content for the high-level transition plan, and the project continued to develop this plan based on feedback from USAID. GHSC-PSM continued hosting global supply chain (GSC) transition-focused

technical working group (TWG) meetings with USAID to deliberate procurement-specific transition strategies, which included mitigating risk related to orders outside the period of performance, GSC-related transition deliverables, and quality assurance. GHSC-PSM furthered the development of headquarters (HQ)- and country-level data asset and intellectual property inventories and disposition guidance working with USAID through the Data Assets and Inventories TWG.

GLOBAL SUPPLY CHAIN PERFORMANCE

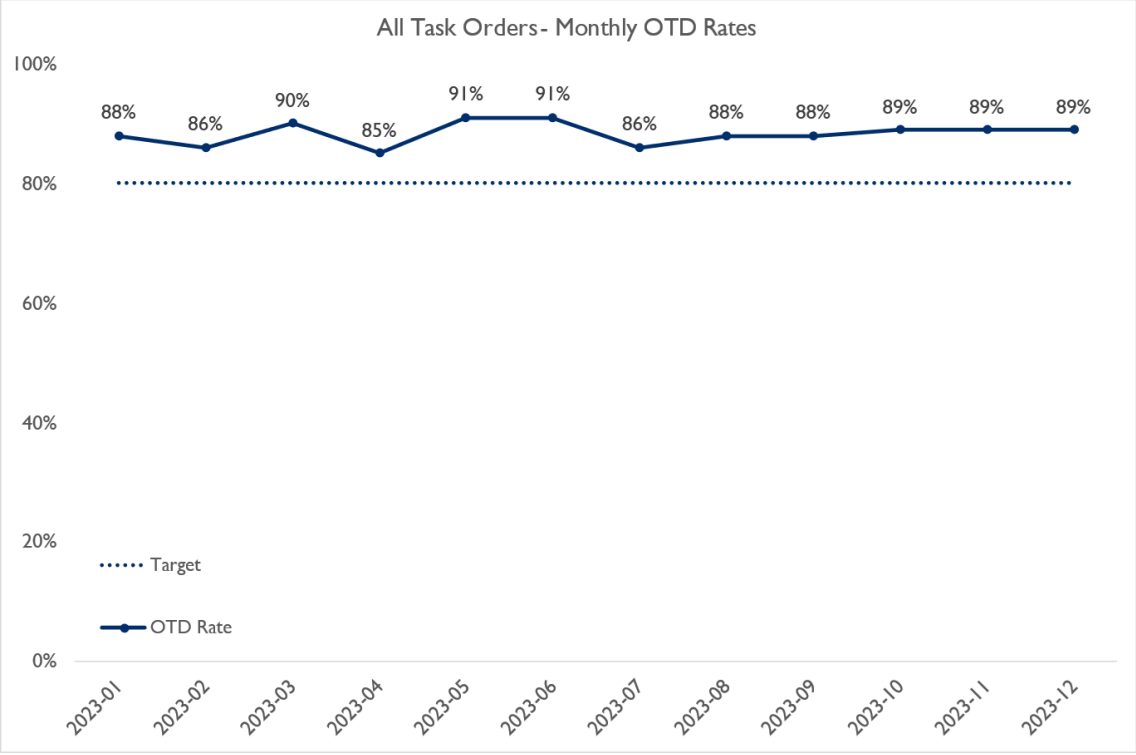
Section C1 describes GHSC-PSM's global supply chain procurement and logistics activities and achievements. Highlights of the project's global supply chain performance in Q1 are below.

Delivered over $169 million in drugs, diagnostics, and health commodities in Q1 and over $5.22 **billion** to date.

Achieved OTD[1] of 89 percent and OTIF of 87 percent in Q1.

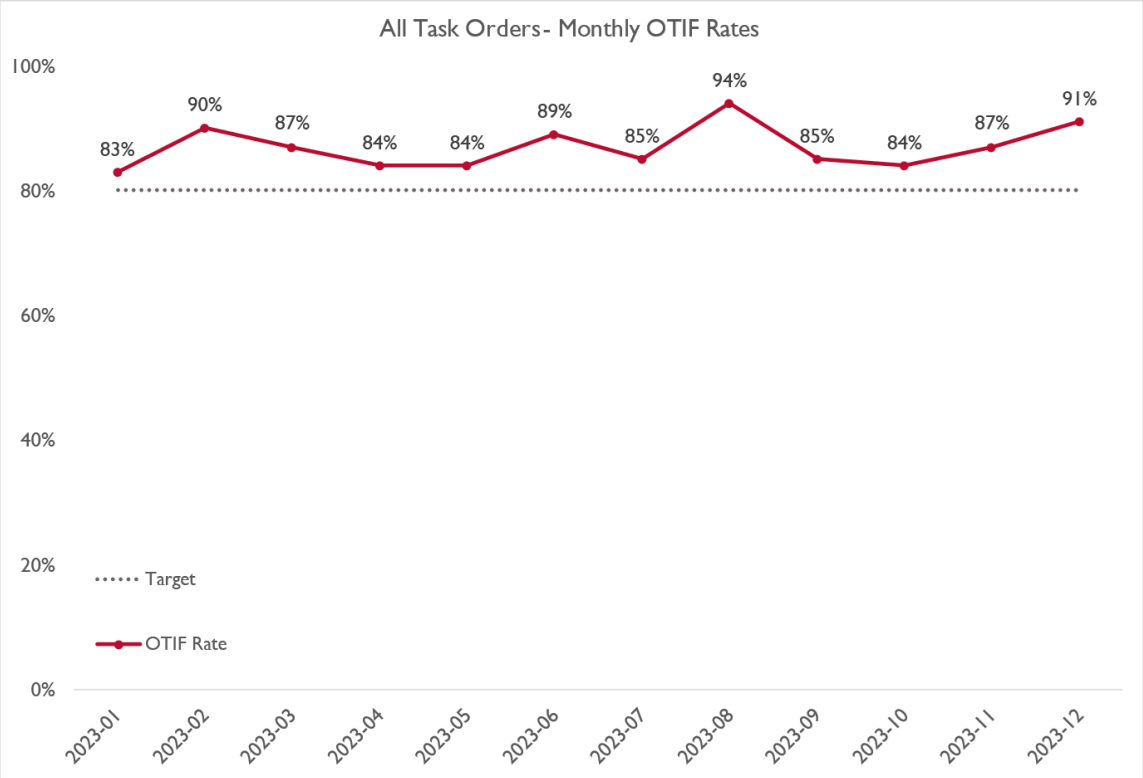
Additional delivery results, including OTIF, are discussed in each health area section.

Exhibit 1. Monthly Indefinite Delivery, Indefinite Quantity (IDIQ) OTD



[1] The project's delivery window is –14/+7 days. With this window, deliveries are considered on time if they are made within the period 14 days before or seven days after the agreed-to delivery date.

Exhibit 2. Monthly IDIQ OTIF



GHSC-PSM routinely conducts root-cause analyses of late deliveries to refine procurement and supply chain processes and continuously improve performance.

In Q1, challenges with air and ocean freight persisted, with airlines adjusting schedules and aircraft types to meet demand. Rebel attacks on vessels transiting the Red Sea pose a potential threat to ocean shipping and may negatively impact cost and lead times. GHSC-PSM continues to assess these challenges and develop proactive strategies to address them.

To promote operational efficiency of procurement activities, the project continued to refine and enhance the use of tools such as the electronic packing list, invoice-to-pay tool, and sourcing assistance messenger. The newest addition to this list is the electronic data interchange (EDI), which aims to automate the flow of transactional data between GHSC-PSM and health commodity suppliers.

HEALTH AREAS

GHSC-PSM provides procurement services and technical assistance to strengthen supply chains and promote global collaboration for HIV/AIDS, malaria, FP/RH, MNCH, and emerging health threat programs. Below are highlights of project achievements in Q1 FY 2024.

HIV/AIDS

GHSC-PSM has **delivered enough antiretroviral therapy to provide nearly 23.3 million patient years of HIV treatment to date.**

This includes **18.4 million patient years of TLD treatment delivered to date.**

GHSC-PSM achieved **a treatment cost of under $40 per patient per year** for inventory pre-positioned in Southern Africa through the vendor-managed solutions (VMS) program.

In Q1, the project used HIV/AIDS funds to support PEPFAR's goals to control the HIV/AIDS epidemic by ensuring an uninterrupted supply of commodities for HIV/AIDS prevention, treatment, and testing viral loads at all levels; implementing technical assistance and systems strengthening initiatives to promote country ownership of the HIV/AIDS response; participating in global policy dialogues; creating and disseminating global resources; supporting health supply chain research; and modifying supply chain data tools to improve procurement, management, availability, and quality of health commodities.

Key activities GHSC-PSM undertook as part of the HIV/AIDS task order in Q1 included:

Achieving OTD and OTIF. Achieved OTD and OTIF above the target of 80 percent (89 percent OTD and 87 percent OTIF).

Advancing the vendor-managed solutions program. Achieved an average five percent price reduction for TLD staged in quality-assured warehouses in South Africa. The project established an FCA Incoterms price of less than $10 for a 90-count bottle prepositioned in Southern Africa under the VMS program, allowing countries to access 90-count TLD for less than $40 treatment cost per patient per year. In Q1, GHSC-PSM delivered 458,388 bottles of TLD from VMS warehouses to Zambia and Zimbabwe.

Delivering pre-exposure prophylaxis (PrEP). Delivered nearly 797,549 bottles of PrEP products to 12 countries,[2] plus 25,650 vials of CAB-LA 600 mg/mL (3 mL) to the Belgium regional distribution center (RDC) and 6,912 dapivirine vaginal rings to support prevention trials in Kenya and Uganda.

Delivering condoms. Delivered 98.7 million male condoms, 992,000 female condoms, and over 8.1 million sachets of lubricants to 14 countries.[3]

Delivering voluntary medical male circumcision (VMMC) kits. Delivered 40,728 VMMC kits to five countries,[4] plus 1,600 Shang Ring devices to Zimbabwe, a VMMC priority country.

[2] Cameroon, Democratic Republic of Congo (DRC), Côte d'Ivoire, Haiti, Honduras, Lesotho, Namibia, Panama, Uganda, Ukraine, Zambia, and Zimbabwe.

[3] Cameroon, Côte d'Ivoire, DRC, Eswatini, Lesotho, Liberia, Malawi, Mali, Mozambique, Nigeria, Senegal, Uganda, Ukraine, and Zimbabwe.

[4] Eswatini, Malawi, Mozambique, Namibia, and Zimbabwe

Increasing private sector involvement in antiretroviral (ARV) delivery. USAID has identified ten D-Term priority high volume ARV countries. In Q1, 38 of the 44 orders to nine of these countries were delivered under modified delivered at place (DAP) and modified delivery duty paid (DDP) Incoterms..[5]

Providing TLD and multi-month dispensing. Delivered more than 2 million TLD 90-count bottles to seven countries[6] and 2 million 180-count bottles to DRC, Haiti, and Zambia.

Transitioning to dolutegravir (DTG) 10 mg. Delivered 217,405 bottles of DTG 10 mg valued at $969,346 to eight countries.[7]

Implementing viral load/early infant diagnosis (VL/EID) awards. Delivered 2.9 million VL/EID tests, saving approximately $12.2 million compared to 2019 pre-global request for proposal (RFP) prices under the terms of the global service-level agreements on a non-inflation-adjusted basis. The project spent approximately $32.6 million total on these orders. GHSC-PSM's cumulative savings on all orders and other PEPFAR buyers since 2020, compared with pre-RFP prices, are more than $137 million.[8]

Procuring viral load and laboratory supplies. Delivered laboratory supplies to 17 countries.[9]

For more information, see section B1: HIV/AIDS.

MALARIA

GHSC-PSM has **delivered over $1.25 billion** in malaria medicines and commodities to 30 countries over the life of the project.

In Q1, GHSC-PSM delivered **14.8 million malaria treatments** and **547 million treatments over the life of the project.**

In Q1, GHSC-PSM **delivered 18.9 million** long-lasting insecticide-treated nets (LLINs) to 16 countries and **31 million LLINs** over the life of the project, potentially protecting **623 million people.**

In Q1 FY 2024, the project used malaria funds to engage suppliers and expand market capacity for LLINs, promoted activities to reduce or mitigate stock risks, and foster the quality of malaria commodities. Other goals GHSC-PSM met for the malaria program in Q1 included:

[5] DRC, Eswatini, Haiti, Mozambique, Nigeria, Tanzania, Uganda, Zambia, and Zimbabwe.

[6] DRC, Kenya, Mozambique, Nigeria, Tanzania, Ukraine, and Zimbabwe.

[7] Burundi, DRC, Côte d'Ivoire, Eswatini, Guatemala, Nigeria, Uganda, and Zambia.

[8] Includes cost savings on VL/EID reagents globally plus savings on the service and maintenance of laboratory equipment in the six Wave-1 countries. It includes procurements by GHSC-PSM as well as other PEPFAR buyers who can benefit from the global agreements.

[9] Burkina Faso, Burundi, Côte d'Ivoire, DRC, Eswatini, Ethiopia, Guatemala, Haiti, Kenya, Mali, Mozambique, Nigeria, Tanzania, Togo, Uganda, Zambia, and Zimbabwe.

Achieving OTD and OTIF. Continued to achieve OTD and OTIF at or above the target of 80 percent (87 percent OTD and 86 percent OTIF).

Engaging suppliers Onboarded one new malaria rapid diagnostic test (mRDT) supplier and issued a new tender for dual active ingredient LLINs.

Implementing quality assurance (QA) strategies and innovations. As part of the strategy to drive procurement and manufacturing regionally from Africa, attended the African Pharmaceutical Manufacturers workshop in Maputo, Mozambique. At the workshop, GHSC-PSM presented quality assurance requirements, policies, and procedures for product procurement and engaged in one-on-one discussions and working group conversations on challenges and barriers faced by African manufacturers, including regulatory requirements. In Q1, the project completed its assessments of two high-volume ACT products for risk-based randomized testing following the International Council for Harmonization (ICH) guidelines for quality. For more information, see Sections B2, Malaria and C3, Global Collaboration.

Fostering quality and expanding market capacity in malaria products. Completed a method transfer for dihydroartemisinin–piperaquine (DHA PPQ) and a trial test for sulfadoxine-pyrimethamine tablets from a new African manufacturer. The project supported access to quality-assured products by completing reviews for eight products, making them eligible for procurement.

Adoption of standard-based identification, barcoding, and data sharing. Disseminated to PMI and the TraceNet working group observations from the LLIN Verification pilot aimed at capturing serialized LLIN campaign distribution data in Calabar Municipality of Cross River State, Nigeria. The project will use the lessons learned to inform updates to the Recommended Identification, Capture, and Master Data Sharing Specifications for Long Lasting Insecticidal Nets Guidelines. The project is developing a dissemination plan to share the lessons with the broader global health community. GHSC-PSM also worked with PMI to reconvene the TraceNet working group to review and revise the 2019 TraceNet Guidelines.

Identifying successful supply chain workforce development (WFD) activities: Submitted the assessment report of WFD activities conducted in Malawi to PMI, completed a WFD assessment in Zambia, and drafted a joint report for the assessments in Malawi and Zambia.

Testing an inventory management Modeling tool for low-malaria-endemic settings: Completed a scenario/sensitivity analysis, in response to country office feedback from Q4, to aid in decision making for stockpile quantities to reduce or optimize distribution events and built-in instructions for users.

Producing technical resources. Continued to disseminate the malaria community health worker (CHW) supply chain advocacy paper "Effective Community-Level Supply Chains for iCCM and Malaria" and incorporated PMI's feedback to finalize the Malaria Commodity Accountability Guidebook and associated tool, piloting the guidebook and tool in Malawi.

For more information, see section B2, Malaria.

FP/RH

Over the life of the project, GHSC-PSM has delivered contraceptives to country FP programs estimated to **provide a potential 104 million couple-years of protection**.

This includes **6.5 million couple years of protection** in Q1.

In Q1, the project used FP/RH funds to document and share project-supported research, expand contraceptive choice, participate in global dialogues, support initiatives to increase supply chain visibility, improve stakeholder collaboration, expand access to data tools that improve supply chain visibility, and engage social marketing organizations among other activities. Other FP/RH goals GHSC-PSM reached in Q1 include:

Achieving OTD and OTIF. Delivered 93 percent of FP/RH commodities on time and 92 percent on time and in full in Q1.

Sharing best practices and lessons learned. Finalized and shared preliminary results of the FP/RH Procurement Impact Briefs utilization survey with USAID, designed to understand how USAID Mission and GHSC-PSM country staff use the briefs as advocacy tools and to inform future iterations.

Strategic engagement. Participated in the Reproductive Health Supplies Coalition (RHSC) General Membership Meeting (GMM) in Ghana, delivering presentations on contraceptive access during COVID-19 and supply chain innovations.

Enhancing the visibility of FP/RH supply data. Continued to improve FP/RH supply data visibility through the Global Family Planning Visibility and Analytics Network (VAN) platform and processes and coordinated with USAID and RHSC to review Kenya's readiness for premium VAN membership.

Tracking contraceptive security. Monitored the 2023 Contraceptive Security Indicators (CSI) survey in over 40 countries, achieving nearly 80 percent completion, in line with the project's expected target. GHSC-PSM also shared analytical insights from 12 years of CSI surveys to USAID Population and Reproductive Health (PRH) and co-led a panel with USAID/PRH's Commodity Security and Logistics Division (CSL), focusing on the strategic impact of government spending and logistics management information systems (LMISs) on contraceptive prevalence.

Supporting social marketing engagement activities. Launched the Transition Order Supply Plans (TOSP) strategy involving 15 project social marketing organizations and public sector programs to monitor demand-supply dynamics and mitigate supply chain disruptions during the transition to the NextGen project.

For more information, see section B3: Family Planning and Reproductive Health.

MNCH

The project shared its MNCH supply expertise at **two global forums** in Q1, and began co-chairing the Maternal Health Supplies Caucus.

GHSC-PSM has procured over $28.3 million in MNCH drugs and commodities over the life of the project.

In Q1, GHSC-PSM collected and shared new MNCH supply chain information and data, including on MNCH commodity procurement, newborn equipment and supplies, and commodity quality and availability for two areas of pregnancy risk—hypertensive disorders of pregnancy (HDP) and postpartum hemorrhage (PPH). The project provided tailored support to countries to procure MNCH commodities, adjust MNCH supply chain policies and operations, improve supply chain data analysis capabilities for MNCH, and improve warehouse operations. Other MNCH activities in Q1 include:

Achieving on-time delivery. In Q1, MNCH OTD was 100 percent and OTIF was 88 percent.

Procuring MNCH commodities. Supported delivery of MNCH commodities to three countries in Q1, including emergency deliveries of cholera medicines to Haiti, critically low essential medicine stocks in DRC, and oral rehydration salt and zinc co-packs to address severe childhood diarrhea in Mozambique.

Global technical leadership. Shared technical leadership in multiple maternal health fora, including a webinar on decentralized MNCH commodity procurement and the Maternal Health Supplies Caucus, and shared MNCH expertise at a WHO convening, Participants prioritized key MNCH supplies, including newborn equipment, and helped launch a global tranexamic acid (TXA) working group to plan around increasing availability of this critical PPH medicine.

Supporting data-informed MNCH decision making. Helped three countries collect end-use verification (EUV) survey data for MNCH programs and submit reports on these data to USAID in Q1. EUV results in Burkina Faso indicated improved cold storage of oxytocin and a decrease in stockouts for most MNCH commodities. GHSC-PSM also continued to implement advanced analytics tools in select countries, including updating code to effectively track stock imbalances in Liberia. Finally, the project began quantifying newborn equipment needs in several countries in Q1.

Increasing MNCH supply chain coordination and collaboration. Provided MNCH supply chain support to 15 countries in Q1. In Guinea, this led to creation of a maternal health advisory committee, which now meets regularly to discuss strategies for improving maternal health outcomes (such as increasing access to quality uterotonics to address PPH). The advisory committee's work has yielded a ministerial decree requiring storage of oxytocin in the existing cold chain for vaccines/immunizations—a major step for ensuring oxytocin is kept cold so it is effective when used.

Facilitating adherence to MNCH best practices. Continued supporting the Every Newborn Action Plan in Q1 by reviewing six countries' newborn health guidelines to determine to what extent they align with WHO's guidelines, and finding areas that could inform global guidance on essential and desirable

newborn health equipment. The project also started working with several partners to sample HDP medicine quality in Malawi and Nigeria in Q1.

For more information, see section B4: Maternal, Newborn and Child Health.

STRENGTHENING HEALTH SYSTEMS

GHSC-PSM's strategic goal is for every country to have an integrated, optimized, accountable, agile, lean, sustainable, locally-led health supply chain able to supply quality products to all citizens. The project currently manages 29 offices at the country or regional level, supplemented by headquarters-based experts; these offices provide wide-ranging technical assistance to strengthen national health supply chains.

Country highlights:

- In **Rwanda**, handed over two supply chain systems strengthening initiatives to the government. In collaboration with United Nations Children's Fund (UNICEF), the project transitioned management of the National Product Catalog mobile application to the Rwandan Food and Drug Administration and handed over the Supply Chain Management Professionalization Framework to the Ministry of Health, Regional Center of Excellence (RCE), and Rwanda Medical Supply Ltd (RMS Ltd).

- In **Kenya**, **Madagascar, and Tanzania,** provided in-person training to strengthen capacity in forecasting and supply planning using the QAT tool. Participants included staff from ministries of health and supply chain implementing partners. (See section C2.)

- In **Mali and Niger,** refined and/or repurposed the dispatch optimizer tool (DOT) and an open-source web application to address each country's specific supply chain needs. These tools improve efficiencies in warehouse management and are designed within each country's context while ensuring that the tools are repeatable, reusable, and adaptable so countries can repurpose them in a way that encourages and improves self-reliance.

- In **Ghana**, worked with two regional warehouses to prepare them for the independent operation of their quarterly profit and loss (P&L) statement as part of the activity-based costing/activity-based management (ABC/ABM) implementation, and provided technical support to set the **Eswatini** Central Medical Store on the path towards becoming a semi-autonomous and government parastatal.

For more information, see section C2: Systems Strengthening and Technical Assistance.

Introduction

A1. BACKGROUND

The U.S. Agency for International Development (USAID) Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project works to ensure uninterrupted supplies of quality medicines and commodities to save lives and to create a healthier future for all. The project directly supports the following global health areas of importance to the U.S. Government (USG):

- The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) to help reach its HIV/AIDS global 95-95-95 testing, treatment, and viral-load suppression targets.
- The U.S. President's Malaria Initiative (PMI) to reduce malaria deaths and substantially decrease malaria morbidity toward the long-term goal of elimination.
- USAID's Family Planning and Reproductive Health (FP/RH) program to ensure that key RH commodities are available for safe and reliable voluntary family planning.
- USAID's maternal and child health (MCH[10]) program to prevent child and maternal deaths.
- Other public health threats as they emerge, such as Zika and novel coronavirus (COVID-19).

The project procures and delivers medicines and commodities, offers comprehensive technical assistance (TA) to strengthen national supply chain systems, and provides global supply chain leadership to ensure that lifesaving health supplies reach those most in need. GHSC-PSM procured commodities or provided TA to more than 70 countries over the life of the project (see Exhibit 3 below).

A2. ABOUT THIS REPORT

We are pleased to present our performance report for the first quarter (Q1) fiscal year 2024 (FY 2024) (October 1, 2023, through December 31, 2023). GHSC-PSM is a matrixed project that integrates work across two axes: health areas and technical objectives. Accordingly, the report is organized as follows:

- Section B summarizes major activities in each of the **five health areas**, including HIV/AIDS; malaria; FP/RH; maternal, newborn, and child health (MNCH); and other public health threats.
- Section C describes activities under **three main technical objectives** (global commodity procurement and logistics, systems strengthening, and global collaboration), including key indicator results for those objectives.
- Annex A describes the activities GHSC-PSM has undertaken with **COVID-19 funding** to respond to the pandemic.

[10] To clarify, the program externally is referred to as the "Maternal and Child Health Program," which was the impetus to name the task order the "Maternal and Child Health" task order. However, we often refer to maternal, newborn, and child health when discussing the technical content because we have a particular emphasis on supporting newborns.

- Annex B contains the **Local Subcontracts Awards** table that summarizes local GHSC-PSM warehousing and distribution and MIS subcontracts, for contracts executed in FY 2023.

- Annex C provides **performance indicators** for October 1, 2023, through December 31, 2023.

Given the size and complexity of GHSC-PSM, this report summarizes its primary efforts and achievements. It reflects only a fraction of the project's efforts each day to help people around the world live healthier lives.

Exhibit 3. Countries for Which GHSC-PSM Procured Commodities (proc.) or Provided TA Over the Life of the Project (does not include COVID-19 procurements)[11]

[11]Procurement and technical assistance country count criteria have been refined and clarified. Country counts may vary from previous reports. Procurement countries include all countries for which GHSC-PSM has released a purchase or distribution order during the life of the project. The table includes these countries for all routine product groups, with COVID-19 procurements

	Proc.	TA		Proc.	TA
AFRICA:			ASIA:		
Republic of Angola	●	●	Islamic Republic of Afghanistan	●	
Republic of Benin	●		People's Republic of Bangladesh	●	
Republic of Botswana	●	●	Union of Burma	●	●
Burkina Faso	●	●	Kingdom of Cambodia	●	●
Republic of Burundi	●	●	Republic of Indonesia		●
Republic of Cameroon	●	●	Lao People's Democratic Republic	●	●
Democratic Republic of the Congo (DRC)	●		Nepal	●	●
Republic of Côte d'Ivoire	●		Islamic Republic of Pakistan	●	●
Kingdom of Eswatini	●	●	Independent State of Papua New Guinea	●	●
Federal Democratic Republic of Ethiopia	●	●	Republic of the Philippines	●	
Gabonese Republic	●		Kingdom of Thailand	●	●
Republic of Ghana	●	●	Socialist Republic of Vietnam	●	●
Republic of Guinea	●	●	LATIN AMERICA & CARIBBEAN:		
Republic of Kenya	●	●	Antigua and Barbuda	●	
Kingdom of Lesotho	●	●	Commonwealth of the Bahamas	●	
Republic of Liberia	●	●	Barbados	●	●
Republic of Madagascar	●	●	Federative Republic of Brazil	●	
Republic of Malawi	●	●	Republic of Chile	●	
Republic of Mali	●	●	Republic of Colombia	●	
Islamic Republic of Mauritania	●		Dominican Republic	●	
Republic of Mozambique	●	●	Republic of Ecuador	●	
Republic of Namibia	●	●	Republic of El Salvador	●	●
Republic of Niger	●	●	Republic of Guatemala	●	●
Federal Republic of Nigeria	●	●	Co-operative Republic of Guyana	●	●
Republic of Rwanda	●	●	Republic of Haiti	●	●
Republic of Senegal	●		Republic of Honduras	●	●
Republic of Sierra Leone	●	●	Jamaica	●	●
Republic of South Africa	●		Republic of Panama	●	●
Republic of South Sudan	●	●	Republic of Paraguay	●	
United Republic of Tanzania	●	●	Republic of Peru	●	
Togolese Republic	●		Federation of Saint Kitts and Nevis	●	
Republic of Uganda	●	●	Saint Lucia	●	
Republic of Zambia	●	●	Saint Vincent and the Grenadines	●	
Republic of Zimbabwe	●	●	Republic of Suriname	●	●
EUROPE & EURASIA:			Republic of Trinidad and Tobago	●	
Republic of Kazakhstan	●		MIDDLE EAST:		
Kyrgyz Republic	●	●	Hashemite Kingdom of Jordan	●	
Republic of Tajikistan	●	●	Republic of Yemen	●	
Ukraine	●				

excluded. Technical assistance countries include all countries where GHSC-PSM has conducted long- or short-term technical assignments, for all health areas. Countries with limited in-country logistics support only are not counted.

PROGRESS BY HEALTH AREA

This section summarizes GHSC-PSM's support in Q1 FY 2024 for HIV/AIDS; malaria; FP/RH; maternal, MNCH; and other public health threats.

B1. HIV/AIDS

GHSC-PSM has delivered enough antiretrovirals (ARVs) to provide nearly **23.4 million patient years of HIV treatment over the life of the project**, including over **828 thousand patient years of treatment in Q1**.

To date, GHSC-PSM has delivered approximately **88.7 million bottles of tenofovir/lamivudine/dolutegravir (TLD)**[12] to 34 countries, which provided over **18.4 million patient years of treatment**.

GHSC-PSM achieved a **treatment cost of under $40 per patient per year** for TLD pre-positioned in Southern Africa through the VMS program.

Multi-month bottle counts of TLD first-line treatment accounted for **100 percent of all quantities delivered** in Q1. Patients saved **an estimated 7.0 million trips** to the pharmacy in Q1 and **more than 132 million trips over the life of the project.** MMD saves patients time and money and gives clinicians more time with other patients in need.

In Q1, **25 countries**[13] procured HIV/AIDS medicines and commodities through GHSC-PSM.

26 countries[14] **received health supply chain systems strengthening** from GHSC-PSM with HIV/AIDS funding in Q1.

[12] This total figure for TLD delivery includes 56.6 million 90-count bottles, 28.3 million 30-count bottles, and 3.8 million 180-count bottles. For more information, see Section B1. HIV/AIDS, TLD, and multi-month dispensing.

[13] GHSC-PSM procured HIV/AIDS commodities for the following countries: AFRICA: Angola, Benin, Burundi, Cameroon, DRC, Côte d'Ivoire, Eswatini, Ethiopia, Ghana, Kenya, Malawi, Mali, Mozambique, Namibia, Nigeria, Rwanda, Senegal, Tanzania, Togo, Uganda, Zambia, and Zimbabwe CARIBBEAN: Haiti; EUROPE & EURASIA: Ukraine; ASIA: Vietnam.

[14] GHSC-PSM has provided HIV-funded TA support to the following countries in FY 2024: AFRICA: Angola, Botswana, Burkina Faso, Burundi, Cameroon, Eswatini, Ethiopia, Ghana, Kenya (TO5), Lesotho, Liberia, Malawi, Mali, Mozambique, Namibia, Nigeria, Rwanda, Uganda, Zambia, Zimbabwe; ASIA: Burma; CARIBBEAN: Haiti, CENTRAL/SOUTH AMERICA: El Salvador, Guatemala, Honduras, Panama. The project also provided HIV-funded short-term assistance to Tanzania in Q1 FY 2024.

GHSC-PSM supports PEPFAR's goal of controlling the HIV/AIDS epidemic by procuring and delivering medicines and commodities to prevent infection and treat PLHIV, including viral load testing commodities to monitor treatment efficacy. This requires global collaboration with suppliers, other donors, the Global Fund, the USG, and supported country governments. GHSC-PSM implements data visibility initiatives to appropriately procure and distribute ARVs and diagnostics, linking patients with necessary health commodities. Project activities support USAID's efforts to achieve 95-95-95 goals: 95 percent of PLHIV people know their status, 95 percent of these are on HIV treatment, and 95 percent of these have no detectable virus.

Procurement

GHSC-PSM has procured more than $3.58 billion in HIV commodities over the life of the project, with $96 million in Q1. Adult ARVs made up 29 percent of all procurements by value in Q1.

DELIVERIES

In Q1, GHSC-PSM delivered over $101 million in HIV commodities to countries and over $3.62 billion in HIV commodities over the life of the project.

On-time delivery and on-time, in-full delivery

The timeliness of GHSC-PSM deliveries remained consistently strong for standard on-time delivery (OTD) over the reporting period, as shown in Exhibit 4. In Q1, OTD was 89 percent for HIV. GHSC-PSM's on-time, in-full (OTIF) rate measures the percentage of deliveries delivered on time and in full during a given period. Delivery of late orders in a subsequent month to the agreed-upon delivery date drives down the OTIF rate, as can delivery of split shipments, which helps explain the difference between OTD and OTIF rates. For OTIF, project performance continued to exceed the target of 80 percent, achieving 87 percent in Q1. See Annex A for further details.

Exhibit 4. HIV Commodities OTD

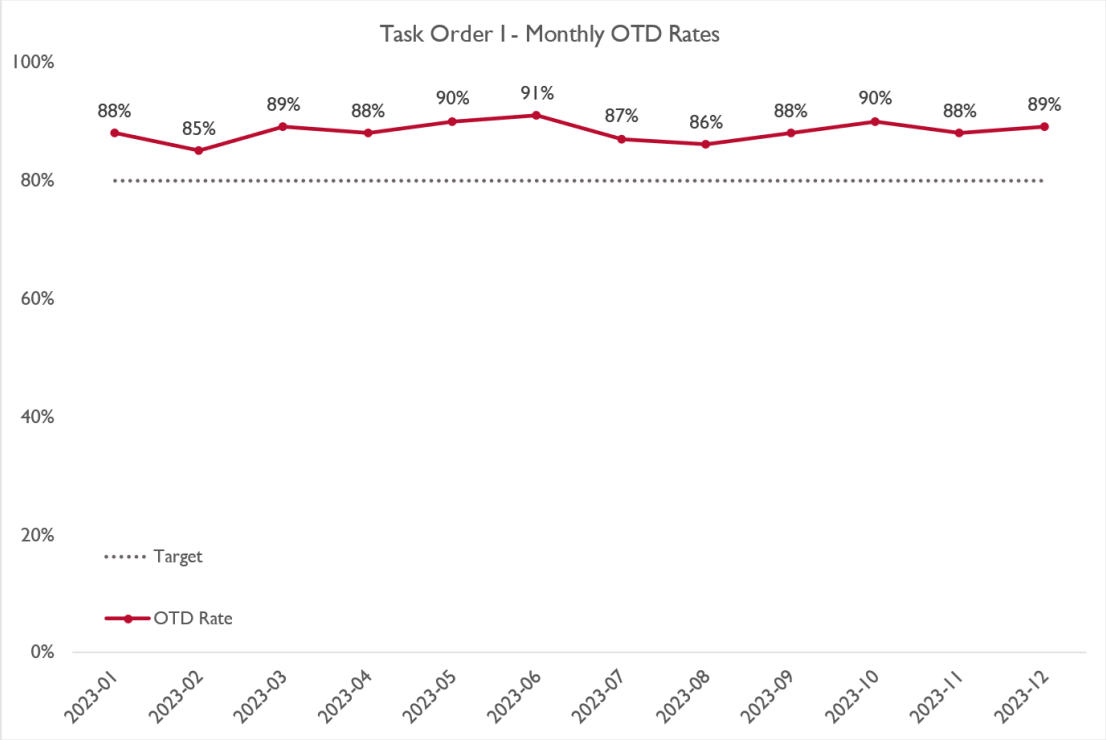
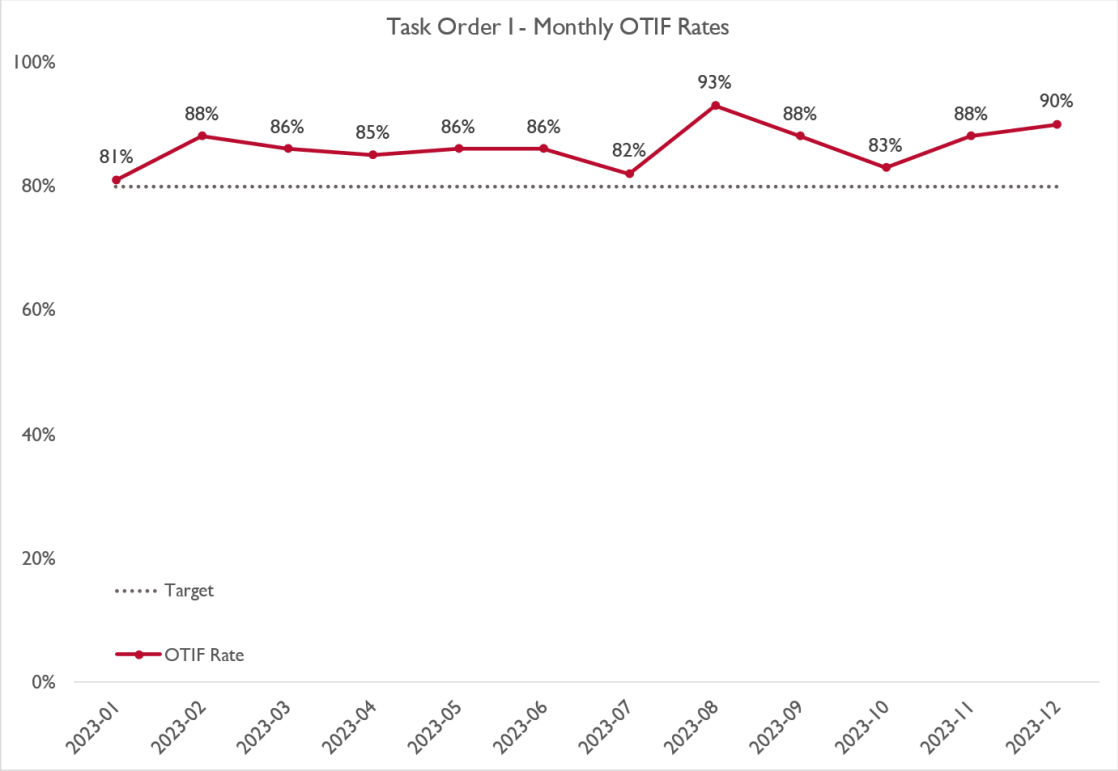


Exhibit 5. HIV Commodities, OTIF



SUPPORTING PEPFAR's HIV/AIDS AGENDA

Pre-exposure prophylaxis

Daily oral PrEP using the antiretroviral medicines tenofovir/emtricitabine (TE) or tenofovir/lamivudine (TL) dramatically reduces the risk of HIV infection in people who use it as directed. In Q1, GHSC-PSM delivered nearly 797,549 bottles of PrEP products to 12 countries.[15] The project also supported the transfer of 210,883 bottles of PrEP from Zambia to Uganda to prevent a stockout, in collaboration with their USAID Missions.

GHSC-PSM monitors supply capacity and lead times for PrEP products listed in the catalog and tracks their delivery to 24 countries quarterly to determine the impact of the PrEP program. The project also actively tracks regulatory approval lead times for new PrEP commodities under development, such as the long-acting injectable PrEP product CAB-LA. Monitoring and tracking enable the project to adapt to the dynamics of each country's PrEP scale-up program by advancing or delaying shipments when necessary.

In Q1, GHSC-PSM delivered 25,650 vials of CAB-LA 600 mg/mL (3 mL) to the Belgium RDC. The project initiated shipping of CAB-LA to Malawi (5,400 vials), Ukraine (1,350 vials), Zambia (14,850 vials), and Zimbabwe (4,050 vials) and expects delivery in Q2 to support PEPFAR PrEP programs.

GHSC-PSM provided commodity procurement support to the National Institutes of Health (NIH)-funded Sustainable East Africa Research in Community Health (SEARCH) program. The project delivered a USAID donation of 6,912 dapivirine vaginal rings for Kenya (3,456 rings) and Uganda (3,456 rings) to support the SEARCH SAPPHIRE study. This study is running six treatment and prevention trials in Kenya and Uganda to help reduce HIV incidence using innovative, scalable strategies for HIV prevention and treatment, such as the dapivirine vaginal ring and CAB-LA, to reach "persistent driver" populations in rural, resource-limited settings.

The project continues to provide technical assistance to the USAID Maximizing Options to Advance Informed Choice for HIV Prevention (MOSAIC) program. In Q1, GHSC-PSM offered technical assistance to MOSAIC project staff on import requirements for delivering CAB-LA 600 mg/mL (3 mL) to Kenya, Lesotho, Uganda, and Zimbabwe. GHSC-PSM also supported MOSAIC by reviewing shipping docs and helping to facilitate required import waivers for deliveries anticipated in Q2.

Condoms

Correct and consistent use of condoms and lubricants significantly reduces the risk of HIV transmission. USAID's support for the condoms program targets regions with high demand and supply gaps. In Q1, GHSC-PSM delivered 98.7 million male condoms, 992,000 female condoms, and over 8.1 million sachets of lubricants to 14 countries.[16]

In Q1, GHSC-PSM concluded its annual sourcing event and price refresh for the male condom, female condom, and lubricant portfolio. Average prices offered by the program's four male condom suppliers

[15] Cameroon, DRC, Côte d'Ivoire, Haiti, Honduras, Lesotho, Namibia, Panama, Uganda, Ukraine, Zambia, and Zimbabwe.
[16] Cameroon, Côte d'Ivoire, DRC, Eswatini, Lesotho, Liberia, Malawi, Mali, Mozambique, Nigeria, Senegal, Uganda, Ukraine, and Zimbabwe.

decreased by three percent compared to FY 2023 pricing, improving the purchasing power of countries supported by PEPFAR. Lubricant pricing remained constant for FY 2024, while the cost of female condoms rose for the first time in six years by six percent ($0.03) per condom. This anticipated increase is due to rising labor and raw material costs. The project concluded amendments to long-term agreements with suppliers to incorporate these updates. GHSC-PSM also implemented a revised allocation strategy to ensure the project uses a portion of each supplier's production capacity each quarter.

Voluntary medical male circumcision (VMMC) kits

Male circumcision is cost-effective and reduces female-to-male sexual transmission of HIV by 60 percent.[17] The World Health Organization and UNAIDS support VMMC scale-up in 14 priority countries in sub-Saharan Africa with a high burden of HIV and low male circumcision prevalence. GHSC-PSM has delivered VMMC kits to 11 VMMC priority countries since the start of the project.[18] In Q1, GHSC-PSM delivered 40,728 VMMC kits to five countries.[19]

The Shang Ring device offers a less invasive alternative method of male circumcision, leading to a rise in demand for the Shang Ring in existing and new markets. GHSC-PSM seeks to reduce lead time and price for the device and is sourcing from additional suppliers with products registered for the Shang Ring circumcision procedure. In Q1, GHSC-PSM delivered 1,600 Shang Ring devices to Zimbabwe, a VMMC priority country.

In Q1, in line with the work plan objective to update the VMMC kit sourcing strategy, GHSC-PSM developed a Power App-based allocation tool to improve automation for order solicitation, evaluation, and award.

Essential medicines

In Q1, GHSC-PSM conducted a comprehensive analysis of essential medicine annual procurement trends and projected demand to release a request for proposal (RFP). A focus for the project's FY 2024 essential medicines strategy continues to be regionalization and consolidation. GHSC-PSM hosted a virtual supplier conference to share updated strategy goals and review expectations for the RFP with all eligible suppliers. The project also hosted follow-up one-on-one meetings with each eligible supplier to answer questions and maximize the quality of proposals received.

Among people living with advanced HIV, cryptococcal meningitis is one of the most dangerous opportunistic infections and significantly contributes to illness, disability, and mortality. Recent guidelines from the World Health Organization (WHO) recommend amphotericin B (liposomal) in combination with flucytosine for treating cryptococcal disease. Most low- and middle-income countries have adopted these WHO guidelines. However, despite being critical to saving lives, access to these medications remains scarce in many countries due to limited product availability and a lack of funding.

[17] USAID 2022 Voluntary Medical Male Circumcision Fact Sheet

[18] Botswana, Eswatini, Ethiopia, Malawi, Mozambique, Namibia, Rwanda, South Africa, Tanzania, Uganda, and Zimbabwe.

[19] Eswatini, Malawi, Mozambique,Namibia, and Zimbabwe.

In line with GHSC-PSM's goal to ensure the availability of quality-assured advanced HIV disease (AHD) commodities, GHSC-PSM continued contract negotiations in Q1 with the manufacturer of amphotericin B liposomal, a critical AHD commodity. This strategy of procuring directly from the manufacturer will enable the project to purchase the commodity at market access pricing, ensuring product availability at a reduced price for PEPFAR-supported countries. Simultaneously, while contract negotiations continued with the manufacturer, to ensure no supply disruption, the project identified an alternate source to fulfill the interim requirements for these PEPFAR-supported countries.

Tuberculosis preventive treatment (TPT)

As the leading cause of morbidity among PLHIV, tuberculosis (TB) causes over a third of all AIDS-related deaths. The WHO recommends that PLHIV who are unlikely to have active TB should receive TPT as part of a comprehensive package of HIV care, including pregnant women and those who have previously been treated for TB, regardless of the degree of immunosuppression, even if latent TB infection testing is unavailable. Completion of TPT for all PLHIV (including eligible household contacts of PLHIV with TB disease) is a PEPFAR Minimum Program Requirement.

Three months of weekly high-dose isoniazid and rifapentine (3HP). The preferred PEPFAR TPT regimen for adults and adolescents is three months of weekly high-dose 3HP. In Q1, GHSC-PSM delivered seven orders of 3HP 300 mg/300 mg fixed-dose combination (FDC) tablets, a total of 149,152 36-count packs, to four countries.[20]

In Q1, GHSC-PSM updated long-term agreements with two major suppliers of FDC. The project also started using the new Power App-based allocation tool to help select suppliers for FY 2024 orders. This tool follows the sourcing strategy established in Q4 FY 2023, which includes market share considerations to ensure market health and product availability. This continued emphasis on ensuring a strong two-source market for 3HP FDC supports USAID's transition to 3HP in PEPFAR-supported countries.

Other TPT regimens endorsed by WHO. In March 2020, WHO released consolidated, updated guidance on tuberculosis preventive treatment (Module 1: Prevention) and endorsed using four shorter regimens.[21] In addition to 3HP, other TPT regimens include 1) one month of daily rifapentine plus isoniazid (1HP); 2) three months of daily isoniazid and rifampicin (3HR); and four months of daily rifampicin (4R). In Q1, GHSC-PSM delivered one order of rifapentine 300 mg tablet (1,365 100-count packs to Burundi), used for 1HP in combination with ilsoniazid/rifapentine 300 mg/300 mg FDC, and three orders of 3HR 75/50 mg dispersible tablet sent to three separate destinations in DRC (18,000 84-count packs).

GHSC-PSM supports PEPFAR countries in procuring isoniazid, rifapentine and isoniazid/rifapentine co-formulated formulations to support implementation of various TPT regimens, when the demand arises.

SUPPORTING THE FIRST 95: TESTING

To support rapid test kit (RTK) availability and reach the first 95 (HIV diagnosis), GHSC-PSM provides forecasting and supply planning as well as in-country logistics support to the USAID Global Health Supply Chain Program-Rapid Test Kit (GHSC-RTK) project (implemented by Remote Medical International), which undertakes the commodity procurement and international freight. GHSC-PSM promotes the management

[20] Orders include 17,364 36-count packs to Namibia, 60,000 36-count packs to Tanzania, 44,164 36-count packs to Zimbabwe, and 27,624 36-count packs to Zambia.

[21] https://www.state.gov/wp-content/uploads/2023/07/FY-2024-PEPFAR-Technical-Considerations.pdf

of HIV-RTK orders and deliveries through regional- and central-level stock data collection using the HIV/AIDS Data Visibility Dashboard. The project shares data monthly with GHSC-RTK to guide HIV-RTK procurement planning and data triangulation and reviews HIV testing targets against HIV-RTK stock in countries with PEPFAR-supported HIV testing programs. In Q1, the project reported 10 RTK stockout risks and resolved them through emergency orders, expedited shipments, and stock transfers.

SUPPORTING THE SECOND 95: TREATMENT

Increased private-sector involvement in ARV delivery

For FY 2024, GHSC-PSM set a target to issue a minimum of 60 percent of ARV purchase orders under modified delivered at place (DAP).

DAP and modified DDP Incoterms to support PEPFAR's private-sector engagement strategy. Incoterms (international commercial terms) represent how international shipments may be organized, indicating when the ownership freight, insurance, and customs costs transfer from the seller to the buyer. Under Group D Incoterms or D-Term Incoterms such as DAP and DDP, the seller pays most of the delivery charges to the destination country. GHSC-PSM considers the DAP and DDP Incoterms as modified arrangements as the recipient countries provide suppliers with a waiver to ensure the project does not incur typical import duties and VAT. In Q1, GHSC-PSM delivered 38 of 44 orders (86 percent) to nine of the 10 D-Term priority high-volume ARV countries under modified DAP and modified DDP Incoterms.[22]

In Q1, the project completed its annual ARV allocation RFP exercise and qualified eight suppliers as eligible to deliver ARVs on behalf of the program. The project continues to target ten countries as D-Term eligible for new orders in FY 2024. In Q1 the project issued 39 of 88 (44 percent) purchase order lines under D-Terms, below the target of 60 percent. This low percentage in Q1 was due to a high volume of orders from countries and suppliers that are currently ineligible for D-Terms.

[22] DRC, Eswatini, Haiti, Mozambique, Nigeria, Tanzania, Uganda, Zambia, and Zimbabwe.

Supplying TLD

Over the life of the project, GHSC-PSM has delivered approximately **88.7 million bottles of TLD**[23] to **34 countries**.

This is enough to provide over **18.4 million patient years of TLD treatment**.

As of Q1, GHSC-PSM has delivered over **56 million 90-count bottles of TLD to** 31 countries.

GHSC-PSM achieved a **treatment cost of under $40 per patient per year** for TLD pre-positioned in Southern Africa through the VMS program.

TLD and multi-month dispensing (MMD)

To achieve HIV treatment goals, GHSC-PSM supports PEPFAR-supported countries' transition to TLD, the preferred first-line ARV. MMD of TLD is a high priority in the global fight against HIV. The project supplies TLD in bottles of 30, 90, and 180 tablets. Over the life of the project, GHSC-PSM has delivered approximately 88.7 million bottles of TLD to 34 countries, including more than 56.6 million 90-count bottles, 28.3million 30-count bottles, and 3.8 million 180-count bottles.

In Q1, GHSC-PSM delivered more than 4.9 million TLD 90-count bottles to seven countries[24] and 2 million 180-count bottles to DRC, Haiti, and Zambia.

In FY 2023, GHSC-PSM significantly shifted its TLD procurement and fulfillment strategies by adopting an annual allocation procurement approach for TLD, with market allocation distributed among a select number of strategic suppliers. This strategic shift allowed suppliers to enhance their planning processes to ensure adequate stock levels of active pharmaceutical ingredients (APIs). Simultaneously, this approach streamlined the GHSC-PSM ordering process and reduced the order cycle time by seven business days. In FY 2023, approximately 80 percent of total TLD delivery followed this more streamlined annual ARV allocation approach, achieving a significant milestone by reducing its dependence on pre-positioning TLD at the RDC.

In Q1, GHSC-PSM completed its annual allocation sourcing strategy for ARVs, qualifying and contracting with five TLD suppliers through a competitive RFP process to fulfill FY 2024 TLD demand. The project delivered 182,684 bottles of TLD 90, just nine percent of Q1 orders, to the Dubai regional distribution center (RDC) as GHSC-PSM continues prioritizing the direct-drop approach to fulfill the demand for TLD.

As part of the strategy to drive procurement and manufacturing in the region, GHSC-PSM attended the African Pharmaceutical Manufacturers workshop in Maputo, Mozambique. The project presented quality assurance requirements, policies, and procedures for product procurement and engaged in one-on-one

[23] This total figure for TLD delivery includes 56.6 million 90-count bottles, 28.3 million 30-count bottles, and 3.8 million 180-count bottles.

[24] DRC, Kenya, Mozambique, Nigeria, Tanzania, Ukraine, and Zimbabwe.

discussions and working group conversations on challenges and barriers faced by African manufacturers, including regulatory requirements.

Vendor-managed solutions (VMS) program

GHSC-PSM achieved its work plan objective of establishing a regional VMS program in Southern Africa in FY 2023. The VMS program encompasses three ARV suppliers staging TLD in quality-assured regional warehouses for delivery to PEPFAR countries in the region. In Q1, GHSC-PSM renewed its partnerships with the three VMS supply partners through an annual ARV RFP and extended long-term IDIQ contracts to include VMS pricing through November 2024.

Under these new contracts, GHSC-PSM achieved a treatment cost of under $40 per patient per year, a five percent price reduction, for inventory pre-positioned in Southern Africa by the supplier. The project is estimated to meet a demand of 5.5 million bottles of TLD 90 through the VMS program in FY 2024.

In Q1, GHSC-PSM delivered 458,388 bottles of TLD from VMS warehouses to Zambia and Zimbabwe. The project completed these VMS shipments on-time and in-full in just 37 and 42 days, respectively, from receipt of the shipping documents to delivery at the door. Compared to sourcing from suppliers in India, which would require an average lead time of 92 days, the VMS program significantly reduces delivery times by more than half, showcasing the benefit of prepositioning stock regionally and providing optimal value to USAID and PEPFAR by storing ARVs closer to patients.

An objective of GHSC-PSM in FY 2024 is to assist PEPFAR-supported Southern African countries to leverage the VMS program to help solve country-specific supply chain challenges, such as alleviating warehousing constraints at the central or regional level through more frequent, smaller TLD orders, or accelerating or delaying shipments when consumption rates fluctuate. In Q1, the project welcomed a private sector engagement advisor. The advisor began supporting stakeholders in Mozambique to craft a country-specific strategy outlining opportunities for the country to leverage the VMS model to minimize stockouts, reduce the burden of high stock levels, lower inventory holding costs, and mitigate potential losses due to expiration at central medical stores. The strategy document for Mozambique will be completed in Q2, and a similar exercise is planned for Zambia.

GHSC-PSM met with strategic ARV suppliers, the Global Fund, the USFDA, the South African Health Products Regulatory Authority (SAHPRA), and other procurement and sourcing agents at the annual ARV Buyers-Sellers Summit in Maputo, Mozambique. The project participated in panel discussions to highlight GHSC-PSM's effective use of non-price factors in its sourcing strategies. Meetings with representatives from the Mozambique Ministry of Health (MOH) focused on advancing the VMS program and using this strategy to address supply chain challenges, particularly for inventory holding patterns within the country. GHSC-PSM, in collaboration with the Global Fund and USAID, convened a meeting to explore how the Global Fund could leverage stock available at VMS supplier's warehouses to enhance stock rotation and minimize product expiry, while also gaining quicker access to products through shorter lead times.

Supplying dolutegravir (DTG) 10 mg

Over the life of the project, GHSC-PSM has delivered 3.6 million bottles of DTG 10 mg to 26 countries.

In Q1, the project delivered 217,405 bottles of DTG 10 mg valued at $969,346 to eight countries.

Pediatric ARVs

GHSC-PSM has been working with PEPFAR-supported countries to provide optimal formulations to infants and children living with HIV (CLHIV). Over the past three years, GHSC-PSM has transitioned CLHIV to dolutegravir (DTG)-based ARV regimens consisting of DTG 10 mg, an integrase strand transfer inhibitor, or INSTI, and a nucleoside backbone (usually ABC/3TC 120/60). The project analyzes orders and supply plan data monthly to increase USAID and stakeholder visibility into the pace and progress of country transitions. In Q1, GHSC-PSM delivered 217,405 bottles of DTG 10 mg valued at $978,322 to eight countries.[25] These deliveries assist countries in maintaining patients on DTG-based regimens.

The next step in the journey to pediatric treatment optimization is to introduce a more convenient formulation to achieve a DTG-based formulation for CLHIV. In Q1, GHSC-PSM continued work began in FY 2023 with USAID to analyze readiness and prepare partner countries to introduce a triple fixed-dose combination of pediatric abacavir/lamivudine/dolutegravir (pALD) 60/30/5 mg, 180-count bottles. The project created a forecasting tool to estimate demand for each product to prevent wastage and ensure sufficient stock before the expected introduction of pALD in FY 2024. In Q1, GHSC-PSM established subcontracts with the two USFDA tentatively approved suppliers to provide pALD during FY 2024. The project issued its first purchase order to a subcontracted supplier to procure 15,599 packs of 180-count tablets for Zambia.

For FY 2024, GHSC-PSM and USAID agreed on a replenishment strategy for low-volume countries, allowing for a quicker response to ARV orders from countries that do not meet the suppliers' minimum order quantity requirements. In Q1, the project received 30,000 bottles of 100 ml of nevirapine 10 mg/ml oral suspension and 8,019 bottles of 240 ml of zidovudine 10 mg/ml oral suspension at the Dubai RDC to serve as prepositioned stock for low-demand countries.

SUPPORTING THE THIRD 95: VIRAL LOAD TESTING

GHSC-PSM's laboratory strategy focuses on strengthening and integrating data systems and stakeholder collaboration through technical support and project coordination to improve the availability and visibility of laboratory services and commodities. As part of its effort to foster country government ownership of resilient and robust diagnostic laboratory networks, GHSC-PSM uses a network approach to strengthen and scale up laboratory services, as described in Beyond Diagnostic Network Optimization: A Network Approach to Strengthening and Scaling Up Laboratory Services. The multi-pronged approach focuses on cost-effective procurement and all-inclusive service-level agreements that include key performance

[25] Burundi, DRC, Côte d'Ivoire, Eswatini, Guatemala, Nigeria, Uganda, and Zambia.

indicator monitoring, performance management, improvement of sample transport referral networks, accurate forecasting and supply planning, and diagnostic network optimization (DNO) and improvement. Viral load testing has expanded rapidly since 2018, when 8.2 million viral load tests were performed across all PEPFAR countries. In FY 2021, more than 51 million viral load tests were performed in PEPFAR countries, increasing to more than 65 million tests in FY 2022.

In Q1, the project held a workshop with USAID to jointly reflect on progress to date, reset the GHSC-PSM laboratory strategy, and identify opportunities for evolution aligned with USAID's long-term strategy for integrated and sustainable national laboratory networks. Following the workshop, the project developed a roadmap for FY 2024 for completion in Q2.

Implementing viral load awards

Preliminary data analysis shows that in Q1, GHSC-PSM delivered 2.9 million VL/early infant diagnosis (EID) tests, saving approximately $12.2 million compared to 2019 pre-global request for proposal (RFP) prices under the terms of the global service-level agreements on a non-inflation adjusted basis. Total spend on these orders was approximately $32.6 million. The project expects to clarify the delivery of additional volumes in Q2.

Cumulative savings on all orders for GHSC-PSM and other PEPFAR buyers since 2020 compared with pre-RFP prices are more than $137 million.[26] This represents significant cost savings compared to 2019 pre-RFP prices, averaging $2–$3 savings per test across the PEPFAR portfolio.

Vendor-managed inventory (VMI) for VL commodities is a strategic initiative that streamlines inventory management and order fulfillment by improving collaboration among suppliers, buyers, and distributors. GHSC-PSM will begin implementing the Nigeria VMI pilot activity in Q2. In **Mozambique**, the participating VL supplier plans to extend the VMI pilot to two additional laboratories in Q2, pending MOH approval. In Q1, GHSC-PSM continued to work with one major supplier and other stakeholders in Mozambique to address issues related to introducing new, high-capacity instruments requiring new testing protocols.

Extending the global RFP for viral load and EID

The project launched all-inclusive service-level pricing in PEPFAR-supported Wave-2 countries immediately after execution of the updated global SLAs with the three VL suppliers.[27] Now, all PEPFAR-supported countries have access to competitive pricing for services and defined service levels. Also, countries with a data-sharing agreement in place benefit from access to transparent and accountable data on vendor and instrument key performance indicator (KPI) performance. Transforming VL testing through strategic

[26] Includes cost savings on VL/EID reagents globally plus savings on the service and maintenance of laboratory equipment in the six Wave-1 countries. It includes procurements by GHSC-PSM as well as other PEPFAR buyers who can benefit from the global agreements.

[27] Wave-2 countries are AFRICA: Angola, Benin, Botswana, Burundi, Burkina Faso, Cameroon, Côte d'Ivoire, DRC, Eswatini, Ethiopia, Ghana, Lesotho, Liberia, Malawi, Mali, Namibia, Rwanda, Senegal, Sierra Leone, South Sudan, Togo, Zimbabwe; ASIA & EUROPE: Cambodia, India, Indonesia, Kazakhstan, Nepal, Papua New Guinea, Philippines, Thailand, Ukraine, Vietnam; LATIN AMERICA & CARIBBEAN: Bahamas, Brazil, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Panama.

procurement will impact the sector beyond GHSC-PSM, as project-negotiated terms and pricing are now available to other procurers in countries using public funds, such as MOHs and the Global Fund.

Following project-led training in FY 2023 of project country offices on the operational aspects of all-inclusive SLAs with VL manufacturers, 14 countries began receiving monthly KPI service-level management reports from two suppliers in Q1. In addition to KPI management training, countries continue to receive support from GHSC-PSM on managing the KPI reporting process. The project initiated a monthly follow-up call focused on testing failure rates with one of the suppliers, with the other two suppliers set to join this process.

In coordination with USAID and CDC, the project developed and issued a data collection survey to assist stakeholders interested in implementing the all-inclusive reagent rental contracts outside the GHSC-PSM umbrella. This includes other PEPFAR implementing partners, the Global Fund principal recipients, and MOHs in Wave-2 countries. Data collected through the survey from nearly 20 countries will be used, among other things, to select the first cohort of participants in a Q2 multi-day regional technical assistance workshop focused on the competencies and tools needed for other entities outside the GHSC-PSM umbrella to implement all-inclusive SLAs for VL procurement and testing.

In Q1, USAID and GHSC-PSM hosted a panel discussion at the African Society for Laboratory Medicine (ASLM) conference in South Africa to promote the Wave-2 all-inclusive SLAs. More than 75 representatives from MOHs, USAID missions, suppliers, and other stakeholders participated in the satellite session. The project also presented three posters at the ASLM conference.[28]

In Q1, GHSC-PSM initiated early warning early action (EWEA) to allow timely follow-up on challenges related to lab instrument downtime. EWEA ensures the lab and suppliers identify and engage early in resolving issues such as analyzer downtime, reagent and commodity stockouts, and failure to meet KPI targets. If these parties cannot find timely solutions, the project intervenes and works on a solution in collaboration with USAID and local stakeholders.

This new system identified issues in **Mozambique**, **Nigeria**, and **Zambia** where full data are available through signed vendor and instrument performance management agreements. GHSC-PSM identified gaps through country deep dives that the project is addressing in coordination with the labs and suppliers and has already seen improvements in error rates in Nigeria. The project is preparing standard operating procedures governing how stakeholders will manage issues identified through the EWEA process.

Procuring viral load and laboratory supplies

In Q1, GHSC-PSM delivered laboratory supplies to 17 countries.[29] The project worked closely with the instrument manufacturer, reagent supplier, and lab partners to prepare for the early Q2 delivery and installation of the new COBAS 5800 instruments in Eswatini. The project facilitated coordination between

[28] GHSC-PSM Conference Hub

[29] Burkina Faso, Burundi, Côte d'Ivoire, DRC, Eswatini, Ethiopia, Guatemala, Haiti, Kenya, Mali, Mozambique, Nigeria, Tanzania, Togo, Uganda, Zambia, and Zimbabwe.

the supplier and the lab in importing the instruments and worked with the supplier to ensure delivery of reagents and consumables before installation. GHSC-PSM timed the delivery of reagents and consumables to maximize shelf life and minimize storage requirements, ensuring the new instruments would be operational in Q2.

In Q1, the project delivered 29 product lines to Guatemala for viral load testing. GHSC-PSM worked closely with labs on the delivery schedule; however, due to fluctuating consumption levels and the lack of available lab storage space, recipients reset the delivery dates after the project had issued the contract to the supplier. The project worked closely with the MOH, labs, and suppliers to meet the new requested delivery dates.

In FY 2023, GHSC-PSM supported development of an invoice-to-pay (ITP) app, reducing the effort and cycle time needed to pay supplier invoices, increasing visibility into payment status, and allowing suppliers and procurement specialists to upload necessary documents. In Q1, the project continued piloting the application with key lab suppliers before sharing it with a wider audience. For more information on the project's transition to this tool, see section C1: Global Supply Chain.

Forecasting and supply planning (FASP)

Accurate FASP is key to a successful supply chain. GHSC-PSM has provided FASP technical assistance to 36 countries[30] over the life of the project to integrate FASP capabilities, develop country-led solutions, and improve program managers' ability to maintain enough inventory to meet disease prevention and treatment targets and address client demand. The project continues to strengthen MOH capacity to forecast lab commodities in Quantification Analytics Tool (QAT) through country-tailored support, remote training, and technical assistance to lab quantification workshops and supply plan reviews. Over ten countries are using QAT to forecast VL and EID commodities.

GHSC-PSM concluded that QAT is an ideal repository for procurement planning and monitoring report (PPMR)-HIV data. The PPMR-HIV in QAT pilot program required the following conditions: the country program reports monthly, the country documents data levels and sources in QAT, and all HIV products in the PPMR are already in QAT.

For general information on QAT and the project's work in FASP, see section C2: Systems Strengthening Technical Assistance.

Shifting from data-driven lab network optimization to data-driven laboratory network improvement opportunities

In line with the strategy to improve laboratory services, GHSC-PSM supports quality service delivery through data-driven laboratory network optimization and geographic information system data visualization. In Q1, GHSC-PSM concluded DNO analysis deliverables and support to OptiDx and is shifting focus toward laboratory network improvement opportunities identified through SLA-KPI data. For a summary of the recently concluded DNO activities, see section C2: Systems Strengthening Technical Assistance.

[30] Angola, Benin, Botswana, Burkina Faso, Burma, Burundi, Cambodia, Cameroon, Côte d'Ivoire, Democratic Republic of Congo, Eswatini, Ethiopia, Ghana, Guinea, Haiti, Kenya, Laos, Lesotho, Liberia, Madagascar, Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Sudan, Tanzania, Thailand, Togo, Uganda, Zambia, and Zimbabwe.

Instrument placement process

As steward of the equipment planning and placement questionnaire (EPPQ), GHSC-PSM manages preparation and submission of the questionnaire with input from the MOH and laboratory technical working groups (TWGs) in each country for any new equipment request. See section C2: Systems Strengthening Technical Assistance.

HIV/AIDS SUPPLY CHAIN DATA VISIBILITY AND COMMODITY SECURITY

GHSC-PSM improves data visibility and analysis of HIV commodity inventories at all levels of the supply chain. The project reviews national inventory data monthly for more than 142 HIV medicines and commodities at the central, regional, and facility levels in 21 PEPFAR-supported countries to identify global stock imbalances. These data assist in monitoring commodity stock risks and progress toward specific initiatives, such as the success of the TLD and MMD transition, the transition to optimal PrEP and TPT regimens, and the scale-up of VL/EID programs. The reports help mitigate stock imbalances and avoid rationing and waste by raising awareness, identifying opportunities to shift GHSC-PSM shipments, and supporting redistribution within countries.

GHSC-PSM hosts monthly Proactive Stock Risk Management (ProStock) meetings. Building on the project's HIV/AIDS data analysis and reporting noted above, this meeting is a forum for GHSC-PSM, GHSC-RTK, and USAID to discuss actual and imminent gaps in HIV commodity access and implement action plans to address them. The project also presents potential HIV commodity stock risks in this forum, allowing for early action and mitigation on numerous longer-term stockout and expiry risks across all categories of HIV products, including adult and pediatric ARVs, PrEP, HIV-RTKs, and VL/EID tests.

In Q1, GHSC-PSM reported monthly on 25 unique HIV commodity stockout risks across 12 countries. The most common causes of stockout risks were product expiry, funding gaps, actual product consumption higher than forecast, late delivery (of host government-funded orders), and late order placement (of host government-funded orders). The products most commonly reported as at risk of stockout were VL/EID (10 risks), adult ARVs (10 risks), and HIV-RTKs (10 risks).

The project mitigated stockout risks by coordinating with donors and suppliers, sharing bilateral data, facilitating inter-country transfers, and processing emergency orders. The project reported 13 commodity stockout risks resolved in Q1, with the most common resolution being deliveries by PEPFAR (five), host governments (five), or the Global Fund (three).

COUNTRY SUPPORT

The HIV/AIDS task order funded supply chain systems strengthening activities in 26 countries in Q1.

In **Angola**, GHSC-PSM and the MOH's National Institute for the Fight against AIDS (INLS) updated the Standard Operating Procedures Manual on Pharmaceutical Management of HIV and AIDS Products. The project trained 159 logisticians across four provinces[31] and a training of trainers (TOT) for INLS staff in Luanda for effective cascade standard operating procedure (SOP) training and logistics sustainability. The TOT helped ensure uniformity in procedures in the logistics management process, preparing 34 logisticians at the central, provincial, and local levels for cascade training. The initiative prompted health facilities to identify strengths and weaknesses in supply chain management. Project and INLS logisticians thoroughly discussed challenges faced by municipal warehouses, focusing on risk identification and assessment and developing a comprehensive risk mitigation plan.

In Botswana, GHSC-PSM collaborated with the Central Medical Stores (CMS) on a one-week FASP quantification workshop for vital, essential, and necessary (VEN) health and laboratory commodities. The exercise improved upon previous quantification processes by increasing stakeholder participation and incorporating additional MOH data such as morbidity data and information on upcoming treatment intervention campaigns that affect consumption.

Also, in **Botswana**, GHSC-PSM with the MOH and CMS developed a comprehensive five-year implementation plan and a Monitoring and Evaluation (M&E) Framework for the National Supply Chain Strategy (NSCS) for health commodities. This collaborative plan will provide the necessary guidance and structure to successfully implement the NSCS for health commodities following its launch in Q4 FY 2023. The implementation plan and M&E framework are critical tools for executing, monitoring, and evaluating the NSCS. The project's support in finalizing this implementation is a significant milestone, ensuring accountability and empowering the MOH to exercise effective oversight and leadership. The project's strategic technical assistance will improve Botswana's national supply chain system for health commodities, enhancing efficiency and effectiveness in healthcare delivery.

In **Burma**, GHSC-PSM provided on-the-job stock monitoring and early warning system training for laboratory consumables and reagents used in phenotypic DST at a WHO-hosted event. The project designed the training for National Tuberculosis Program (NTP) laboratory technicians to improve their drug susceptibility testing (DST) capabilities. This training will ensure technicians can perform DST of second-line anti-tuberculosis drugs without the interruption of stockouts, improving treatment success for patients suffering from multiple drug-resistant tuberculosis.

[31] Benguela, Cunene, Huambo, and Lunda Sul.

Also, in **Burma**, GHSC-PSM facilitated a quarterly stock review meeting with the NTP Senior Consultant Microbiologist and representatives from the Yangon NTP, Mandalay NTP, WHO, Médecins Sans Frontières (MSF), and Population Services International (PSI) to aid the NTP in managing the supply of laboratory commodities. The project provided an overview of the stock status of the Central Tuberculosis Laboratory Store, Lower Myanmar Store, and state/regional stores, which indicated no stockouts but an impending stockout of sputum containers. The pending stockout was related to the inability of a United Nations Office for Project Services (UNOPS) supplier to ship the desired quantities.

In **Liberia**, GHSC-PSM collaborated with the Liberia National AIDS and STI Control Program and the Nimba County Health team to add five additional health facilities in the northern rural province to the number of PEPFAR-supported HIV high–burden health facilities receiving project support. Since 2019, the project has provided lifesaving HIV products and supply chain management coaching to 21 HIV high–burden facilities in four of Liberia's fifteen counties (Montserrado, Margibi, Grand Bassa, and Nimba). The project now supports 26 HIV high–burden health facilities in four counties, helping provide lifesaving ARVs for 2,000 additional clients and training health practitioners on LMIS tools and supply chain best practices for HIV commodities.

In **Malawi**, GHSC-PSM, the Clinton Health Access Initiative (CHAI), CDC, and other partners are supporting the MOH in implementing DNO to improve access to testing and create an efficient specimen referral network. This will optimize equipment utilization, reduce turnaround times and testing costs, and improve diagnostics service delivery. In Q1, the project supported the MOH by collecting baseline data using the OptiDx tool. Following data analysis, the project supported the MOH to develop scenarios for an optimized network, forming the baseline for DNO implementation.

B2. MALARIA

Delivered more than **547 million** artemisinin-based combination therapies (ACTs) to treat **malaria infections over the life of the project**, including **14.8 million** in Q1 FY 2024.

23 countries[32] received health systems strengthening support with malaria funding in Q1, FY 2024.

GHSC-PSM delivered malaria medicines and commodities to 24 countries in Q1, and 31 countries over the life of the project.

Delivered enough long-lasting insecticide-treated nets (LLINs) to provide **protection from malaria for almost 38 million people in Q1 and almost 623 million people over the life of the project**.

GHSC-PSM's work supports and accelerates achievement of the five focus areas outlined in PMI's 2021–2026 strategy to end malaria faster: reaching the unreached, strengthening community health systems, keeping malaria services resilient, investing locally, and innovating and leading. The progress made in these areas during Q1 of FY 2024 demonstrates GHSC-PSM and USAID's dedication to this vital mission as we relentlessly work toward eliminating malaria and saving lives.

COMMODITY SOURCING, PROCUREMENT, AND DELIVERY

GHSC-PSM assesses market conditions and the sources of critical commodities, key starting materials (KSMs), and active pharmaceutical ingredients (APIs) to inform project strategies to ensure product availability and accessibility.

[32] GHSC-PSM provides health supply chain system strengthening support with funding for malaria for the following countries: AFRICA:Angola, Burkina Faso, Burundi, Cameroon, Ethiopia, Ghana, Guinea, Kenya (TO5), Liberia, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Sierra Leone, Uganda, Zambia, Zimbabwe; ASIA: Burma (Myanmar), Cambodia, Laos, Thailand. The project also provided malaria-funded short-term assistance to Madagascar and Tanzania in Q1 FY2024.

STRATEGIC SOURCING AND SUPPLIER RELATIONSHIP MANAGEMENT

In Q1, GHSC-PSM began implementing the FY 2024 sourcing strategies across all commodities that aim to increase the project's value to PMI partner countries through overall cost savings, increase access to products manufactured in the African region, and encourage suppliers to invest in African manufacturing capabilities. These strategies prioritize total landed cost, supplier performance, and regionalization initiatives and are based on the annual work plan and finalized tenders. GHSC-PSM finalized contract modifications with 24 of its IDIQ holders to include FY 2024 pricing and onboarded one new malaria rapid diagnostic test (mRDT) supplier.

In Q1, GHSC-PSM issued a new tender for dual active ingredient LLINs to reflect market changes and increase availability for recipient countries to procure higher volumes. Final allocations of dual active ingredient nets will be completed in early Q2.

Procurement and Delivery

In Q1, GHSC-PSM procured malaria commodities, with a total value of $34 million, for 24 countries.[33]

In Q1, GHSC-PSM delivered almost $50 million worth of malaria commodities to 24 countries.

On-time delivery and on-time in full

The timeliness of GHSC-PSM deliveries remained consistent for standard OTD and OTIF. In Q1, the OTD rate for malaria commodities was 87 percent (see Exhibit 6). The OTIF rate in Q1 was 86 percent.

Exhibit 6. Monthly On-Time Delivery Rates for Malaria Commodities

[33] Angola, Benin, Burkina Faso, Burundi, Cambodia, Cameroon, Cote d'Ivoire, DRC, Ethiopia, Ghana, Guinea, Kenya, Liberia, Madagascar, Malawi, Mali, Myanmar, Mozambique, Niger, Nigeria, Rwanda, Senegal, Uganda and Zambia.

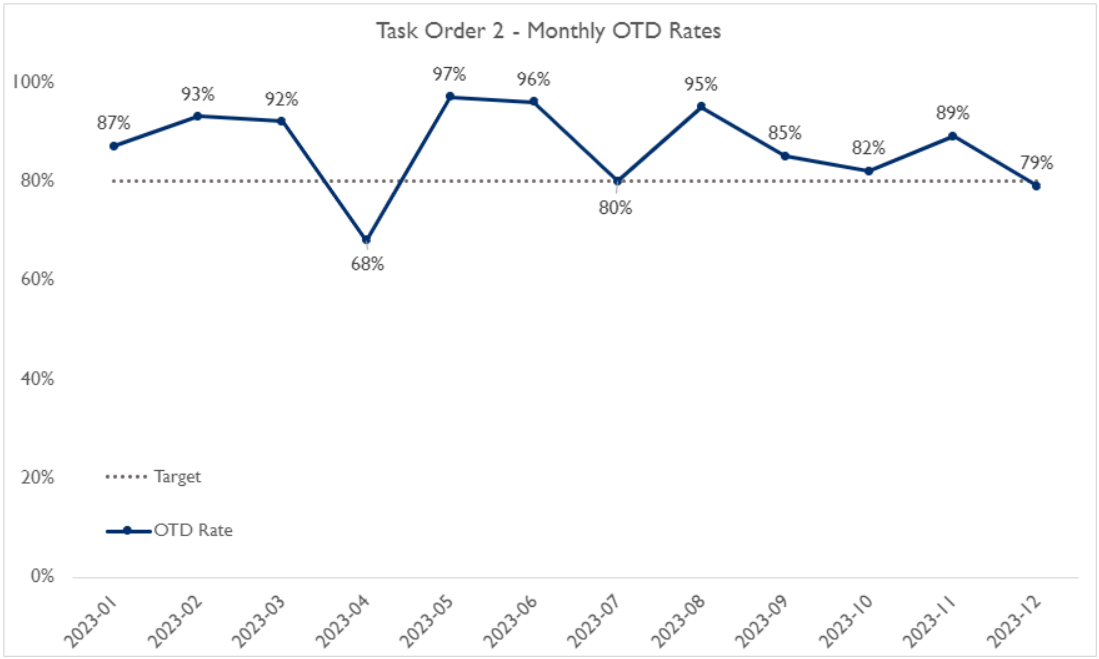
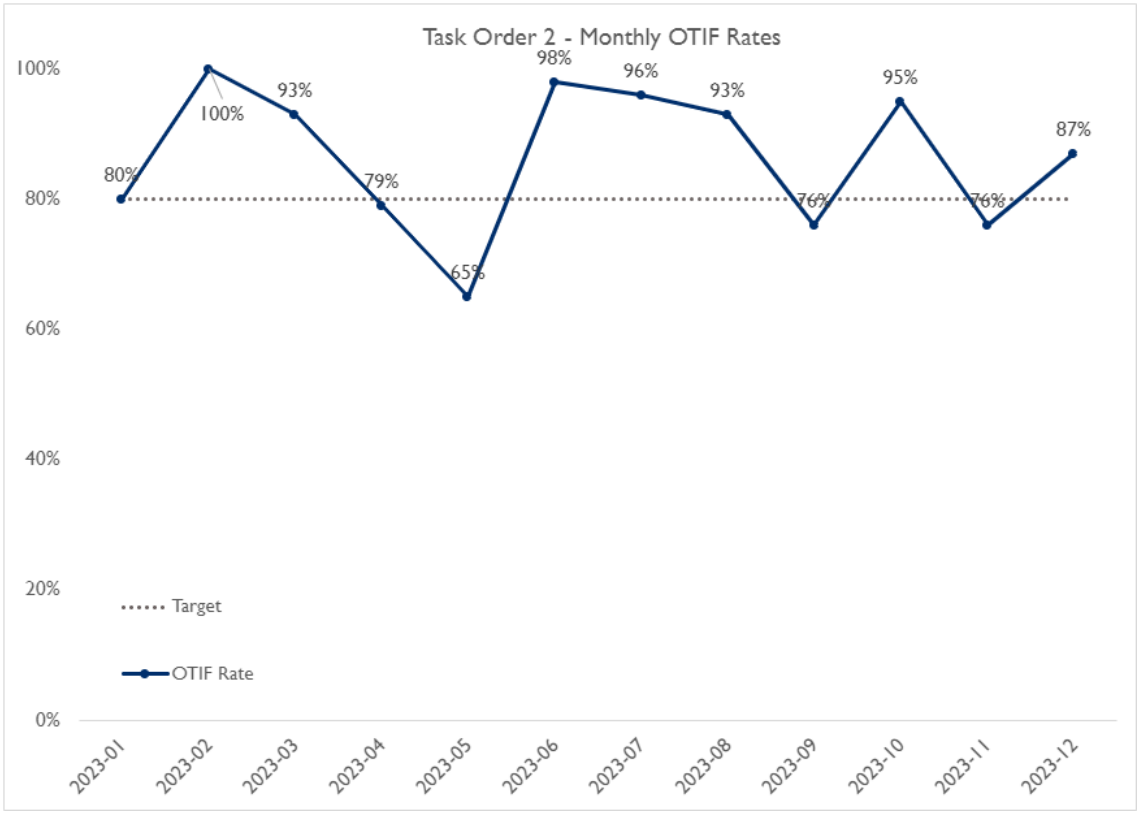


Exhibit 7. On Time In Full Rates for Malaria Commodities



GLOBAL SOURCING COLLABORATION

GHSC-PSM participates in the Malaria Pharmaceuticals (Pharma) Task Force,[34] mRDT Task Force,[35] Vector Control Access Task Force,[36] and LLIN Donor Collaboration meetings.[37] These groups provide a valuable forum to exchange information on market risks and promote improved collaboration across the global malaria community. They are supplemented by one-off working sessions and communications to discuss acute risks, issues, and opportunities.

GHSC-PSM also participates in the KSM/API working group of the Malaria Pharma Task Force that works to identify and mitigate risks related to upstream supply chains of finished malaria pharmaceutical products.

In Q1, GHSC-PSM and Malaria Pharma Task Force members coordinated order placement timelines to ensure supplier production capacity. Task Force members discussed the status of malaria commodity stock in Niger in light of the recent political transition on July 26, 2023 and the border closure with Benin. As borders into Niger were closed, preventing delivery by truck, the Task Force recommended that products be transported from the port of Benin to Niger by chartered flight.

Members shared that manufacturers in India are investing in expanding the artemether-lumefantrine (AL) market. However, manufacturers have less incentive to invest in expanding the market for other malaria pharmaceuticals due to low profit margins. PATH also reported that the sole manufacturer drastically reduced the cost of semi-synthetic artemether but not down to the current pricing of vegetal artemisinin.

One supplier reported delays with sulfadoxine API resulting from manufacturing plant renovations, but this did not impact existing orders.

Clinton Health Access Initiative (CHAI) representatives shared the publication of a long-term forecast related to ongoing work on the deep dive into antimalarial resistance mitigation. The report is anticipated to be available on the RBM Global Malaria Dashboard in March 2024.

COMMODITY RISK PROFILES

Commodity risk profiles visualize volumes shipped from suppliers by geographic region. GHSC-PSM reviews each commodity category to identify challenges or risks in a given period and shares updates on

[34] Malaria Pharma Task Force members include Clinton Health Access Initiative (CHAI), Bill & Melinda Gates Foundation (BMGF), GHSC-PSM, the Global Fund, Impact Malaria, the Malaria Consortium, Medicines for Malaria Venture (MMV), MSF, Pan-American Health Organization, PATH, PMI, UNICEF, and WHO.

[35] mRDT Task Force members include CHAI, Foundation for Innovative New Diagnostics, BMGF, the Global Fund, the Malaria Consortium, MSF, PATH, PMI, GHSC-PSM, UNICEF, United Nations Development Program, Unitaid, and WHO.

[36] Vector Control Access Task Force members include the AMF, CHAI, BMGF, GHSC-PSM, the Global Fund, Innovative Vector Control Consortium, International Federation Red Cross, MMV, MSF, PMI, Population Services International, Results In Health, UNICEF, Unitaid, and WHO.

[37] LLIN Donor Collaboration calls include members from AMF, GHSC-PSM, PMI, the Global Fund, and UNICEF.

the status of active orders. In Q1, the project responded to the following challenges and provided updates to PMI:

- In Uganda, an injectable artemisinin supplier could not meet a February goods availability date (GAD) due to production unavailability. GHSC-PSM reallocated a portion of Uganda's orders to a secondary supplier to meet the GADs.
- In Senegal, the MOH made a request for orange-flavored sulfadoxine-pyrimethamine + amodiaquine (SPAQ), which a single-source supplier fulfilled. GHSC-PSM is monitoring the supplier's performance to ensure on-time delivery.
- An ACT supplier shut down in Q4 FY 2023 to update its software system, halting the availability of vendor-stored inventory (VSI). To manage orders and avoid stockouts, GHSC-PSM shifted fulfillment of emergency orders to the RDC.
- GHSC-PSM negotiated with the supplier of AL hard tablets and dispersible tablets to prepone the goods availability dates (GADs) for a partial shipment by one month to avoid a stockout in Burkina Faso.

RAPID FULFILLMENT MECHANISM STRATEGY

The project uses the RDC stockpile and VSI as critical mechanisms to fulfill emergency and urgent orders for AL.[38] The strategies for fulfilling emergency and urgent orders work in tandem. For emergency orders, the priority is to fulfill them fully or partially from the RDC stockpile. If the RDC stockpile is insufficient to meet the need, GHSC-PSM can fulfill emergency orders through VSI. The project uses VSI as a first option in fulfilling urgent orders; however, in the event of dwindling shelf life at the RDC, the stockpile may be used.

In alignment with the work plan, GHSC-PSM continued using a VSI strategy for AL to avoid stockouts. In Q1, GHSC-PSM used VSI to fulfill two urgent orders of AL 20/120 mg dispersible tablets for Burkina Faso, one for Burundi, and one urgent order of AL 20/120 mg hard tablets for Uganda. Additionally in Q1, GHSC-PSM delivered two emergency orders of AL 20/120 mg dispersible tablets and AL 20/120 mg hard tablets to Sierra Leone, which were fulfilled through the RDC stockpile.

The project also has a rapid replenishment strategy in place for SPAQ, whereby SPAQ is stockpiled at the Belgium RDC for rapid replenishment of unplanned orders to ensure timely delivery, reduce fulfillment lead times, and mitigate future stockout risks by hedging against market uncertainty and disruption. The project rapidly moves these commodities by leveraging a rotating emergency loan fund to secure large volumes of supplier production capacity in markets with limited supply. GHSC-PSM places orders based on data-driven demand signals to secure production capacity earlier in the ordering process—often before receiving country orders.

In FY 2024, GHSC-PSM fulfilled urgent SPAQ orders for Côte d'Ivoire, Ghana, and Cameroon from the supplier stock. The project shipped the remaining quantity of SPAQ to the RDC to fulfill urgent orders for FY 2024 seasonal malaria chemoprevention campaigns as needed.

[38] Task Order 2 (TO2) Emergency orders: orders with less than four-month lead time from the requisition order entry date and the requested delivery date. TO2 Urgent orders: orders with more than a four-month lead time but less than the standard lead time to be met through routine procurement.

Demand data—derived from quarterly country supply plans and the monthly Procurement Planning and Monitoring Report for Malaria (PPMRm)—inform these strategies for AL and SPAQ, which the project translates into the country stock risk dashboards that illustrate the timing and scope of upcoming stock risks.

QUALITY ASSURANCE

Collaborating

GHSC-PSM plays a leadership role among global stakeholders in the LLIN QA space as chair of the LLINs Quality Assurance Group (LQAG). In Q1, the LQAG discussed post-market information gathering and initiatives. The group also discussed its goals for calendar year 2024, including joint efforts in supplier visits, reviews, and fostering of sustainability by managing environmental impact through waste reduction within net manufacturing.

Implementing Strategies and Innovations

In Q1, GHSC-PSM continued to work toward increasing procurement from the African continent. The project attended the African Pharmaceutical Manufacturers workshop in Maputo, Mozambique, and presented quality assurance requirements, policies, and procedures for product procurement. GHSC-PSM also engaged in one-on-one discussions and working group conversations on challenges and barriers faced by African manufacturers, including regulatory requirements and the regulatory landscape across the continent.

In Q1, the project completed its assessments of two high-volume ACT products for risk-based randomized testing. GHSC-PSM achieved this goal by following International Council for Harmonization (ICH) guidelines for quality Q8 to Q12 that ensure pharmaceutical quality, safety, and efficacy and also used the failure modes and effects analysis (FMEA) tool. The FMEA is a stepwise process for determining possible process failures to analyze the robustness of a process. Upon completing the assessment, the project recommended risk-based randomized testing, reduced from 50 to 20 percent of procured batches of the two ACTs, and the client approved this recommendation.

FOSTERING QUALITY IN MALARIA PRODUCTS

PRODUCT REVIEW FOR ELIGIBILITY

In Q1, GHSC-PSM completed a method transfer for dihydroartemisinin–piperaquine (DHA PPQ), and conducted a trial test for sulfadoxine-pyrimethamine (SP) tablets procured from a new African manufacturer. The project has established test methods with third-party laboratories to perform routine testing for quality, safety, and efficacy of products procured from new manufacturers. In Q1, GHSC-PSM completed reviews for eight products (see Exhibit 8) and facilitated the addition of products to the Restricted Commodity Waiver list governed by USAID Automated Directives System 312, making the product eligible for procurement. This included a review of the new product dossier, reports, and certification documents.

Exhibit 8. New Products Added to the Restricted Commodity Waiver List in Q1

Product category	**Product subcategory**	**Product detail**
Pharmaceuticals	SP	SP tablets 500/25 mg
Pharmaceuticals	Severe malaria	Artesunate for injection (60 mg, one solvent)
mRDTs	mRDT	HRP2 (Pf), 10 test kit
mRDTs	mRDT	HRP2 (Pf), 25 single test kit
mRDTs	mRDT	HRP2/pLDH (Pf/PAN), 10 test kit
mRDTs	mRDT	HRP2 (Pf) Ag, 10 test kit
mRDTs	mRDT	HRP2 (Pf)/pLDH (Pv)

LLINs	LLIN	Single insecticide (alphacypermethrin) polyethylene

Abbreviations: Ag, antigen; HRP2, histidine rich protein 2; LLIN, long-lasting insecticide-treated net; mRDT, malaria rapid diagnostic test; Pf, *Plasmodium falciparum*; pLDH, parasite lactate dehydrogenase; Pv, *Plasmodium vivax*; SP, sulfadoxine-pyrimethamine.

Key performance indicators

In Q1, GHSC-PSM:

- Completed 94 percent of quality assurance/quality control processes within the required lead times, above the target of 85 percent.
- Achieved out-of-specification (OOS) findings of 0 (zero) percent of batches tested, below the target of 1 percent.
- Generated cost savings of $25,689 as a result of using randomized testing in Q1 instead of testing all batches.

ADOPTION OF STANDARD-BASED IDENTIFICATION, BARCODING, AND DATA SHARING

In Q1, GHSC-PSM continued implementing identification, barcoding, and data-sharing requirements for procured malaria products, creating an enabling environment for data exchange and visibility. In total, for the 232 malaria task order items in-scope (subject to requirements, actively procured in the past, and available for procurement in the future), by the end of Q1, total compliance scores by area were:

- Identify [Global Trade Item Number/Global Location Number (GTIN/GLN) collection]: 99 percent.
- Capture (Standards-compliant barcoding on labels): 94 percent.
- Share [Global Data Synchronization Network (GDSN) data synchronization]: 92 percent.

For additional highlights and milestones related to these standards in Q1, see Section C.

LLIN Verification pilot in Nigeria

In **Nigeria**, GHSC-PSM shared observations from the LLIN Verification pilot with PMI and the TraceNet working group. The pilot's aim was to capture serialized LLIN campaign distribution data in Calabar Municipality of Cross River State. The pilot provided lessons on product identification and data capture, including barcode sizing and quality, and barcode readers. Small data carrier sizing, obscure placement on product, a low-light environment for operations, and damaged/distorted labels negatively impacted

successful scanning and subsequent data collection. The pilot also provided lessons on system configuration and product verification.

Lessons learned regarding quality and size of barcodes and scanning technology from the pilot are being used to inform the TraceNet working group's updates to the Recommended Identification, Capture, and Master Data Sharing Specifications for Long Lasting Insecticidal Nets Guidelines. GHSC-PSM will incorporate pilot observations into existing quality assessment/quality improvement processes, supplier engagement, and capability-strengthening efforts. The project is also developing a dissemination plan to share these lessons with the broader global health community.

Re-launch of the TraceNet TWG

Co-convened by PMI and the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), the TraceNet TWG includes representatives from manufacturers, procurement agents, donors, implementing partners, and select donor-funded country programs.

In Q1, GHSC-PSM and PMI reconvened the TraceNet TWG to develop an actionable and harmonized approach for revising the TraceNet guidelines and revisiting manufacturer expectations. The reconvened TWG is reviewing the status of each contributing organization's adoption of the joint guideline recommendations; identifying opportunities and challenges in implementing recommendations; and updating recommendations to address known challenges, gaps, and current best practices. GHSC-PSM hosted the TraceNet TWG kickoff meeting—the first of a series of planned meetings where global health stakeholders, including the Global Fund, United Nations Children's Fund (UNICEF), Against Malaria Foundation (AMF), Innovative Vector Control Consortium (IVCC), WHO, and several international LLIN manufacturers—convened to discuss their experience implementing LLIN supply chain standards. In Q2, GHSC-PSM will facilitate a structured review and feedback period to inform the updated guidelines, which are expected to be released in Q3.

PRIORITY SETTING AND REDIRECTION OF ORDERS

GHSC-PSM works with USAID to address country needs and market constraints, prioritize orders based on needs, and conduct commodity order transfers to improve stock status.

A total of 29 countries submitted data to the PPMRm, which collects and reports information on stock status and host government and donor shipments. Visibility into this stock status and shipment information enables PMI, the project, and countries to make decisions on prioritizing, expediting, or delaying procurements or shipments and facilitates forecast and supply plan review to optimize procurements. Based on PPMRm data, GHSC-PSM completed the following activities:

- In **Ghana,** advocated with the National Malaria Elimination Program to expedite a Global Fund order and prevent a stockout of artesunate injectable 30 mg.
- In **Ethiopia**, initiated AL shipments to prevent potential stockouts of AL 6x2 , and 6x4.
- In **Côte d'Ivoire**, expedited shipments to prevent a stockout of AL 6x1 and AL 6x2 blisters.

MALARIA COMMUNITY HEALTH WORKER SUPPLY CHAIN ADVOCACY PAPER

In FY 2023, GHSC-PSM supported community health supply chains as one of PMI's strategic focus areas, publishing the advocacy paper "Effective Community-Level Supply Chains for iCCM and Malaria." The paper encourages the global community to engage community health workers in strengthening supply chains that address the unique needs found at the community level and shares best practices and lessons learned from GHSC-PSM experiences. The paper is being disseminated to partners, donors, and key host government officials across PMI and USAID partner countries. In Q1, the project worked with the Child Health Task Force to organize a webinar about institutionalizing supply chains for integrated community case management, where GHSC-PSM will present the advocacy paper. The webinar will be held in Q2.

REFINING THE MODELING TOOL AND GUIDANCE FOR INVENTORY MANAGEMENT FOR LOW-MALARIA-ENDEMIC SETTINGS

Low consumption of malaria products in low-malaria-endemic settings can result in product expiries and additional expenses incurred from redistributing products between facilities. To address this challenge, in Q2 FY 2023, the project developed a Modeling Tool for optimizing supply management for low-consumption malaria medicines, which uses case information as a surrogate for consumption data. Users can plug in data to test stockpiling and distribution strategies and calculate the cost of these scenarios and their relative risk of leading to expiries or stockouts. GHSC-PSM received feedback from Cambodia, Laos, and Thailand country offices in Q4 FY 2023. In Q1 FY 2024, the project added a scenario/sensitivity analysis to help decision making for stockpile quantities to reduce or optimize distribution events, along with built-in instructions for users. The project is internally reviewing the tool and plans to present it to the country offices in Q2 for their adoption.

WORKFORCE DEVELOPMENT QUALITATIVE ASSESSMENT

In FY 2021, USAID funded country data collection to understand the scope of its financial investments in workforce development (WFD) between FY 2017 and FY 2020. With these data, USAID aimed to identify the most successful and most challenging WFD methods. In FY 2023, the project completed a workforce development assessment in Malawi and submitted a report to PMI in Q1 FY 2024. Assessment participant recommendations included prioritizing supportive supervision, mentorship, and coaching; providing in-person and hands-on training; integrating monitoring, evaluation, and follow-up visits; and recruiting competent and experienced trainers for WFD activities. The study team used learnings to make adjustments to the data collection process of a WFD assessment next conducted in Zambia in Q1 FY 2024. The project then produced a joint report on the assessments in Malawi and Zambia with compared learnings and a summary of recommendations, and submitted it to PMI in Q1.

MALARIA COMMODITY ACCOUNTABILITY INITIATIVE

In Q1, GHSC-PSM:

- Continued development of the Malaria Commodity Accountability Guidebook and associated tool to help country stakeholders identify discrepancies between the total number of malaria products

consumed according to the logistics management information system (LMIS) and the number of malaria services reported in District Health Information System 2 (DHIS2). The tool provides stakeholders with the data needed to conduct root-cause analysis and determine interventions to improve accountability for malaria commodities. This activity contributes to PMI's 2021–2026 strategy focus areas "innovate and lead" and "keep malaria service resilient" by enabling country programs to identify and address accountability challenges, keeping their services resilient, and promoting efficiencies.

- Incorporated PMI's feedback to refine the guidebook. The guidebook and tools were then piloted in Malawi where feedback was gathered as further input into refining the guidebook and tools. ..

LLIN DELIVERY AND DISTRIBUTION SUPPORT

In Q1 2024, GHSC-PSM delivered almost 19 million LLINs to countries for distribution as a malaria prevention measure (Exhibit 9). Through this initiative, communities received nets before the rainy season through seasonal campaigns and year-round through continuous channels. In some countries, the project provided transportation support through third-party logistics (3PL) service providers to deliver LLINs from the central level to district or health facility levels for continuous or mass distribution. In Q1, the project delivered LLINs to 16 countries[39] (see Exhibit 9) for the preparation or launch of LLIN distribution campaigns.

Exhibit 9. Quantity of LLINs Delivered to Countries in Q1 FY 2024

Country	Number of LLINs delivered
Burundi	647,973
Cameroon	60,000
Congo DRC	2,544,965
Côte d'Ivoire	709,848
Ghana	2,438,938
Guyana	3,000
Kenya	1,964,254
Liberia	252,000
Malawi	263,250
Mali	650,000
Nigeria	6,363,000
Senegal	1,132,986
Sierra Leone	405,696
Uganda	505,729
Zambia	600,000
Zimbabwe	400,000
Total	**18,941,639**

In Q1, GHSC-PSM supported LLIN distribution activities:

[39] Burundi, Cameroon, DRC, Côte d'Ivoire, Ghana, Guyana, Kenya, Liberia, Malawi, Mali, Nigeria, Senegal, Sierra Leone, Uganda, Zambia and Zimbabwe

- In **Zambia**, the project, the National Malaria Elimination Centre (NMEC), Evaluate for Health (E4H), and PAMO Plus received 6.29 million piperonyl butoxide LLINs for the 2023–2024 mass campaigns. GHSC-PSM provided warehousing and distribution support to the health facilities of six provinces.[40] Net distribution to health facilities occurs solely after receiving allotments from NMEC/MOH, following household registrations. During Q1, the project:
    - Delivered 1.2 million LLINs to Luapula and 1.45 million LLINs to the Eastern province.
    - Began delivering LLINs to the Northern and Western provinces following the official sharing of household data by NMEC.
    - Completed delivery to five of the 12 districts of the Northern provinces and four of 16 districts in the Western province.

  The project will deliver the remaining 3.64 million nets in Q2.[41]

- In **Ghana**, worked with the National Malaria Elimination Program to implement the second phase of the 2023 school-based LLIN distribution in Central and Greater Accra regions. As part of this exercise, the project provided transportation for 390,700 LLINs from the central warehouse to district warehouses and to 7,186 schools. This is enough nets to protect over 780,000 people against malaria.

- In **Burundi,** produced a plan for transferring responsibility for LLIN management from the project to the Burundi central medical stores (CAMEBU). CAMEBU has long been responsible for the warehousing and distribution of PMI-donated malaria and family planning commodities, while GHSC-PSM has managed LLINs since the beginning of the project. The large volume and weight of LLINs, as well as requirements for separate storage and distribution, complicated their integration into CAMEBU. This transfer of ownership should result in CAMEBU executing distribution starting in Q2, with an associated reduced cost to PMI.

COUNTRY SUPPORT

In Q1, GHSC-PSM worked to strengthen supply chain systems for malaria medicines and commodities in 23 countries.[42] Some highlights from this quarter include:

In **Burkina Faso,** completed the supply and installation of fire safety equipment at the Central Purchasing Office for Generic Essential Medicines and Medical Consumables (CAMEG) warehouse in Tengandogo. The equipment installed includes pumps, sanitary boosters, and tubes. The project conducted conclusive post-installation tests with CAMEG, and the subcontractor that supplied and installed the fire safety

[40] Eastern, Luapula, Muchinga, Northern, Northwestern, and Western provinces.

[41] In Q2, around 1.2 million LLINs will be delivered to the Northern province, 900,000 to the Western province, and the remaining to Muchinga and Northwestern provinces.

[42] GHSC-PSM provided technical assistance to countries with malaria funding: AFRICA: Angola, Burkina Faso, Burundi, Cameroon, Ethiopia, Kenya (TO5), Ghana, Guinea, Liberia, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Sierra Leone, Uganda, Zambia, and Zimbabwe; ASIA: Burma, Cambodia, Laos, and Thailand. The project has also provided malaria-funded short-term assistance to Madagascar and Tanzania in Q1 FY 2024.

equipment trained CAMEG personnel on equipment use. The final reports are completed and shared with CAMEG and USAID. The project plans to hold a ceremony to officially hand over the fire safety work to CAMEG in Q2, FY 2024.

In **Ethiopia,** the project provided supportive supervision to 75 Auditable Pharmaceuticals Transaction System (APTS) implementing facilities; APTS is a system flow process that introduces transparent and accountable pharmaceutical transactions and services that result in a continuous supply of essential medicines, optimal budget utilization, and improved pharmacy services. The supportive supervision results from the facilities visited indicate the following: complete availability of APTS tools (88 percent), generation of summary reports (75 percent), bin ownership (73 percent), good dispensary organization for optimal workflow (93 percent), use of price control sheets (69 percent), and internal audit practices (51 percent). Overall, the percentage of facilities with APTS requirements fulfilled is 60 percent, highlighting the need to work with the administrative units to promote compliance with APTS requirements. The project plans to achieve improved compliance with APTS by utilizing the remaining time of the project to work directly with the health facilities through the Results Oriented Supportive Supervision (ROSS) support and indirectly, through the existing structure of the government, by collaborating with the ministry of health and the regional health bureaus, to ensure their further support to the health facilities for improved compliance with APTS requirements.

In **Zambia**, collaborated with partners to improve MOH management of logistics systems related to malaria and other essential medicines.

- Collaborated with the MOH to conduct on-the-job training in two districts; the Kazungula district of the southern province and the Kapiri Mposhi district of the central province. During the training, the project and MOH strengthened the capacity of 22 MOH staff members to effectively manage logistics systems (antiretrovirals and the Essential Medicines Logistics Improvement Program-EMLIP, which comprises malaria commodities). The project conducted on-site training at ten facilities (five facilities per district).
- Collaborated with the Nursing and Midwifery Council of Zambia to develop and scale up an eLearning program on Supply Chain Management related to malaria health commodities. Training on managing the online program on the Moodle platform was initially provided to ten lecturers, and was scaled up in Q1 to train ten more.

In **Zimbabwe**, conducted malaria data validation meetings with the MOH as part of the TO2 surge activities[43] in five prioritized districts (the five districts with the biggest case consumption disparity ratios according to a desk review conducted in 2022) to assess their progress in achieving target case consumption ratios below or equal to three. Preliminary data from the health management information system indicated that the case-to-consumption ratio for Q1 FY 2024 (8.6 percent), despite being lower than in Q4 FY 2023 (10.5 percent) for the five prioritized districts, was still distant from the target ratio of 3. Based on recommendations from the previous meetings, four of the five districts appointed pharmacy focal points at clinics to manage stores effectively, allowing nursing staff to concentrate on clinical duties.

[43] The surge activities are a GHSC-PSM initiative fully funded by PMI with the aim of improving supply chain systems.

B3. FAMILY PLANNING AND REPRODUCTIVE HEALTH

To date, GHSC-PSM has delivered contraceptives to country FP programs estimated to provide a potential **104 million couple-years of protection**, including **6.5 million in Q1.**

Delivered FP/RH commodities[44] to 16 countries[45] in Q1, and provided **health supply chain systems-strengthening support** to **19 countries[46] in Q1 of FY 2024** with FP/RH funding.

Continued timely fulfillment of USAID-supported countries' orders, **achieving 93 percent OTD** in Q1.

Participated at international FP/RH meetings, including the Reproductive Health Supplies Coalition (RHSC) General Membership Meeting (GMM), GHSC Summit, Joint UNICEF, United Nations Population Fund (UNFPA), WHO Meeting with Manufacturers and Suppliers, and Ouagadougou Partnership Meeting.

The FP/RH task order (TO3) serves as the primary vehicle through which USAID procures and provides FP/RH commodities for its voluntary FP/RH programs; offers technical assistance to improve supply systems and contraceptive security in partner countries; and provides technical leadership to strengthen the global supply, increase financing, and introduce new FP/RH commodities.

ADDRESSING FP/RH PRIORITIES

Securing reliable supply of commodities

In Q1, GHSC-PSM maintained its commitment to achieving commodity security by using multiple supply chain strategies, including maintaining "'made to stock," where certain goods are produced and stocked in advance to meet anticipated future demand. GHSC-PSM also employs a coordinated ordering approach,

[44] Per USAID guidance, all condom procurements are counted under the HIV/AIDS task order.

[45] GHSC-PSM delivered FP/RH commodities to the following countries: Angola, Bangladesh, Burkina Faso, Congo DRC, Ghana, Haiti, Kenya, Madagascar, Malawi, Mozambique, Rwanda, Senegal, Tanzania, Togo, Uganda, and Zambia

[46] GHSC-PSM provided technical assistance with FP/RH funding to the following countries in Q1 FY 2024: Angola, Burkina Faso, Burundi, Ethiopia, Ghana, Guatemala (Central America), Guinea, Haiti, Kenya (TO5), Liberia, Malawi, Mali, Mozambique, Nigeria, Pakistan, Rwanda, South Sudan, Uganda and Zambia.

which is particularly effective when global demand for certain commodities significantly exceeds available supply.

Implementing a rapid fulfillment strategy

The project continued stocking commonly procured items in its RDC to ensure quick order fulfillment and mitigate supply constraints, prioritizing products with relatively high shelf life to reduce the risk of expiry.

Managing ongoing supply shortages

Procurement of one-rod implantable contraceptives, a high-demand sole-source product, faced challenges due to ongoing supply shortages, which are expected to persist throughout FY 2024. GHSC-PSM continues collaborating with the Consensus Planning Group to coordinate supplier allocations of available supply among multiple procurement agencies and prioritize needs while ensuring fair and reliable access to the product.

Achieving OTD and OTIF

Timeliness of GHSC-PSM deliveries remained strong in Q1 for FP/RH commodities at 93 percent OTD. OTIF numbers remained strong at 92 percent.

Exhibit 10. FP/RH Commodities, OTD

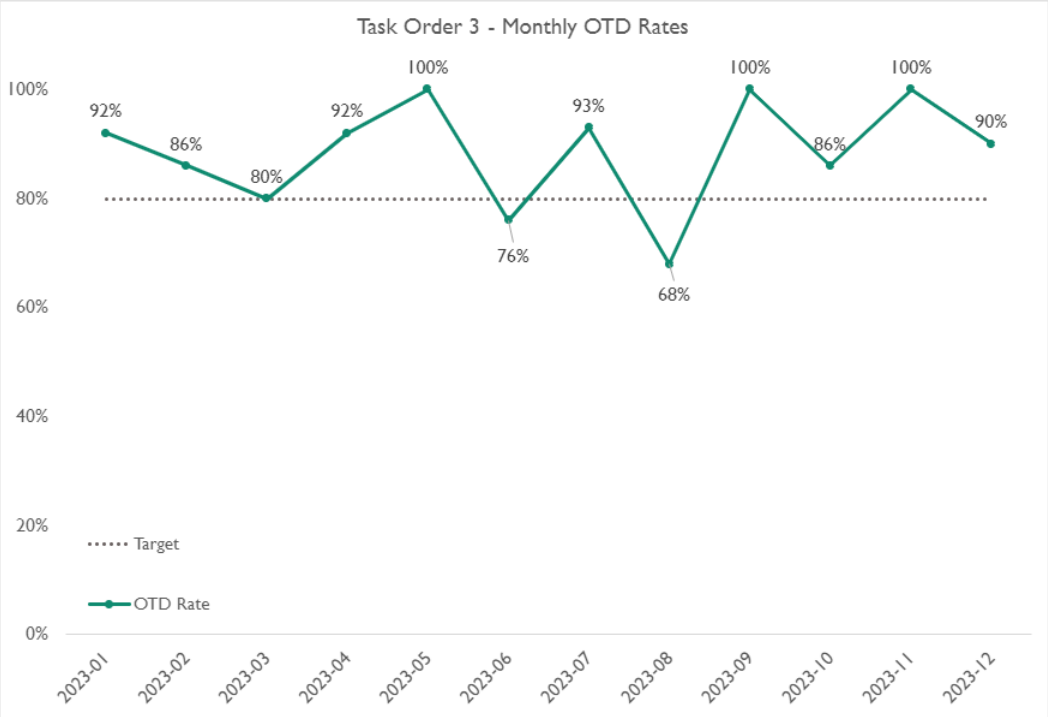
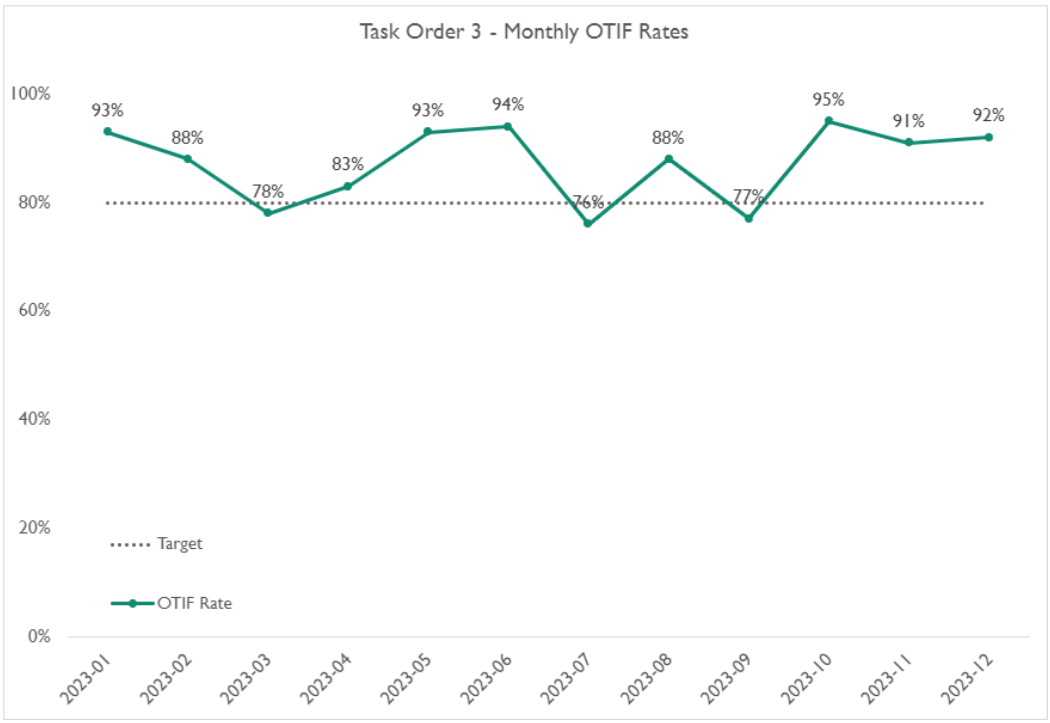


Exhibit 11. FP/RH Commodities, OTIF


Task Order 3 - Monthly OTIF Rates
100%
80%
60%
40%
20%
0%
93%
88%
78%
83%
93%
94%
76%
88%
77%
95%
91%
92%
Target
OTIF Rate
2023-01
2023-02
2023-03
2023-04
2023-05
2023-06
2023-07
2023-08
2023-09
2023-10
2023-11
2023-12

Updating pricing for family planning commodities

In Q1, GHSC-PSM refreshed pricing for injectable contraceptives, implantable contraceptives, hormonal intrauterine devices (IUDs), non-hormonal IUDs, progestin-only pills, combined oral contraceptives, and standard days method and extended the associated long-term agreements to Q1 FY 2025, ensuring a continuous supply of FP commodities throughout the project's period of performance. GHSC-PSM also issued a request for quotation (RFQ) for emergency contraceptives to expand the supply base for this product category in response to market constraints.

Supporting the movement toward local manufacturing of injectable contraceptives in sub-Saharan Africa

To support diversifying the geographic supply of hormonal contraceptive manufacturing to mitigate future supply risks and enhance contraceptive security in sub-Saharan Africa, GHSC-PSM is assessing the potential of sub-Saharan Africa–based manufacturers for hormonal contraceptive manufacturing. In Q1, GHSC-PSM revised the local manufacturing implementation roadmap developed in FY 2023 in response to USAID's feedback. The roadmap outlines the critical steps needed to overcome key barriers in support of the movement toward local manufacturing of injectable contraceptives. These steps include convening a stakeholder meeting to unite relevant actors and encourage groups to self-identify which role they are best suited to lead. Other steps involve leveraging the Partnerships for African Vaccine Manufacturing Framework for Action and assessing the impact and potential of modular factories on hormonal production. In Q2, GHSC-PSM will present the draft roadmap at two venues, including the USAID Topical Tuesday, to gather additional feedback for informing document finalization.

Supporting social marketing engagement activities

GHSC-PSM monitors the demand and supply dynamics for social marketing organizations (SMOs) supported by USAID. In Q1, the project initiated the Transition Order Supply Plan (TOSP) strategy, involving all TO3 programs, which include SMOs in 15 countries and USAID Mission involvement. This initiative aimed to understand the demand trends by requesting submission of supply plans for forecasts until March 2025. The USAID Missions assisted in facilitating this exercise with the SMOs. Overall, this activity was crucial for anticipating and addressing any disruptions in the supply chain that might arise during the transition to NextGen. Manufacturers are becoming more reluctant to overbrand products often requested by SMOs and therefore it is especially important for GHSC-PSM to obtain SMO supply plans.

As of Q1, ten SMOs out of 15 contacted have provided their contraceptive and condom forecasts. In Q2, the project will review these supply plans and provide the SMOs with feedback. This process will proactively manage product fulfillment, navigate production contingencies, and ensure an uninterrupted supply of commodities during the transition to NextGen.

Completed analysis for the FP/RH Procurement Impact Briefs utilization survey

In Q1 FY 2024, GHSC-PSM completed an analysis of the utilization survey and shared preliminary results with USAID. The survey sought to assess the use and comprehension of the FP/RH procurement impact briefs, enhancing insights into their utility as an advocacy tool and informing future iterations. The survey received responses from 20 participants, ten from GHSC-PSM country offices and ten from USAID

Missions. Respondents included Activity Managers, USAID FP/RH Technical Advisors, USAID Supply Chain Advisors, Country Directors, and GHSC-PSM FP/RH Supply Chain Specialists.

The survey revealed varied findings: although many respondents had limited knowledge of impact brief content, they generally found the briefs easy to use. Data on impact indicators and model descriptions were the most valuable features. The briefs were used mostly for policy and budget advocacy with the MOH, with their use by project and MOH staff varying between 40 percent and 60 percent. The survey led to preliminary recommendations, such as providing a user's guide, adding a glossary with definitions, and better targeting the briefs to audiences. In Q2, GHSC-PSM will incorporate feedback from USAID and the Knowledge SUCCESS project on survey results and finalize the presentation.

GHSC-PSM will also begin implementing an FY 2024 activity, which will guide incorporation of the impact briefs into countries' strategic planning through dissemination efforts.

STRATEGIC ENGAGEMENT

Strengthening partnerships at UN Agencies meeting

In Q1, GHSC-PSM attended the 2023 Joint UNICEF, UNFPA, and WHO Meeting with Manufacturers and Suppliers in UN City, Copenhagen, Denmark. The project attended sessions on procurement, quality assurance, and equitable access to health products. The conference also allowed GHSC-PSM to pursue its goal of global collaboration through one-on-one meetings with suppliers and colleagues from UNFPA for in-depth discussions on market-shaping initiatives aimed at better serving client needs.

Publication of peer-reviewed articles on workforce development

Published four case study articles with the People that Deliver (PtD), Rwanda Ministry of Health, and IntraHealth on USAID's investments to strengthen supply chain management human resources in Rwanda. Publishing these articles is intended to contribute to the global body of knowledge and best practices in strengthening human resources for health. GHSC-PSM submitted the articles, "Applying a Theory of Change for Human Resources Development in Public Health Supply Chains in Rwanda" and "Developing a Framework to Professionalize Health Supply Chain Management" to the Global Health Science and Practice (GHSP) journal. The project submitted the article, "A Holistic Approach to Comprehensive Workforce Development in Rwanda" to the Humanitarian Logistics journal. The article, "Labor Markets for Health Supply Chain Management in Rwanda: A Qualitative Study of Stakeholder Perspectives" was published by the BioMed Central (BMC) journal. All articles were cleared by the TO3 COR team at USAID.

Preparing for the PtD Global Indaba

In Q1, the PtD Global Indaba accepted five GHSC-PSM abstracts for presentation in Q2 2024, focusing on reproductive health and cross-cutting supply chain topics.

Participating at the Reproductive Health Supplies Coalition (RHSC) General Membership Meeting

In Q1, GHSC-PSM participated in the RHSC GMM in Accra, Ghana. This meeting was a strategic opportunity to engage with the RHSC global community. The meeting's theme was resilience in the face of COVID-19's impact on access to RH supplies.

GHSC-PSM presented on two topics: "Protecting Access to Contraceptives during the COVID-19 Pandemic: An Assessment of Contraceptive Security and Supply Chain Resilience," covering responses from the Contraceptive Security Indicators Survey across multiple countries, and "Enhancing Technology in Support of Malawi Ministry of Health Resilience to FP/RH Commodity Supply Chain Challenges," a joint presentation with the Malawi MOH. In addition to the presentations, GHSC-PSM assisted in preparing for the RHSC systems strengthening working group meeting, which included a panel discussion on Ghana's FP supply chain systems and future opportunities. Throughout the conference, participants discussed topics such as the future of domestic financing, local manufacturing, next steps for the Global Family Planning Visibility and Analytics Network (VAN), and the RHSC strategy redesign.

Participating in the annual Ouagadougou Partnership Meeting

The Ouagadougou Partnership fosters collaboration across nine[47] francophone West African countries to accelerate progress in the use of family planning services. The 12th Ouagadougou Partnership Annual Meeting in Abidjan, Côte d'Ivoire, brought together high-level representatives from Ministries of Health and Finance, ministries in charge of youth and adolescents, as well as donors and partners in the region. The Prime Minister of Côte d'Ivoire, His Excellency Robert Beugre Mambe, and the Minister of Health and Public Hygiene, Mr. Pierre N'Gou Dimba, were present at the Opening Ceremony, as well as the Ambassadors of the U.S. and Canada in Cote d'Ivoire. This high-level representation is a testament that family planning and reproductive health are high on the agenda of the region's political leadership and Côte d'Ivoire in particular. The first day brought together 400 in-person and about 900 online participants.

Burkina Faso and Côte d'Ivoire reported making substantial progress to resolve unmet family planning needs, while some countries, including Niger and Mauritania, are lagging. The lack of progress in resolving unmet needs is apparent in most countries. The political crises in Mali, Guinea, and Niger, as well as the lack of resources in the aftermath of the COVID-19 pandemic, were raised as potential drivers.

Meeting session discussion topics included strategies for better access of youth and adolescents to FP services, linkages between researchers and decision makers, data quality, FP and humanitarian settings, and the role of the private sector.

Main takeaways:

- The Ouagadougou Partnership is a unique platform for Francophone countries in West Africa to share experiences, develop common advocacy strategies, and leverage support to meet FP2030 goals.
- Countries with steady investments in FP programs can make meaningful progress in increasing new users of contraceptive methods and decreasing unmet needs.

[47] The nine countries are: Benin, Burkina Faso, Côte d'Ivoire, Guinea, Mali, Mauritania, Niger, Senegal, and Togo.

- The meeting is still dominated by service delivery and advocacy themes, with little space for the supply chain.
- GHSC-PSM will work with organizers to support a workstream on supply chain and family planning.

Tracking contraceptive security

GHSC-PSM manages the 2023 CSI survey, which assesses access to a wide range of affordable, high-quality contraceptives in more than 40 countries. In Q1, the project achieved an 82 percent survey response rate, in line with GHSC-PSM's expectations and previous survey rounds. GHSC-PSM continued survey validation through a rigorous, multi-round process that involves conferring with data collectors and consulting secondary sources.

GHSC-PSM also collaborated with USAID to follow up on the remaining countries needing support, either for submitting the survey or obtaining MOH sign-off. In Q2, GHSC-PSM will conduct data aggregation and analysis.

By conducting the survey and disseminating results, GHSC-PSM will contribute to the global knowledge base regarding the range of FP policies, approaches, and enabling environments to reduce the unmet need for FP, increase access to and use of contraceptives, and ultimately enable clients to plan their families and prevent unintended pregnancies.

Disseminating findings from the CSI Survey research activity

GHSC-PSM developed a harmonized dataset by aggregating nine rounds of CSI Survey data collected from 2010 to 2021 across 63 countries. In FY 2022 and FY 2023, the project explored two critical research questions: 1) what national policies contributed to driving an increased modern contraceptive prevalence rate (mCPR) and 2) what national policies drive countries to expand their range of available contraceptive methods (method-mix strategy).

The project conducted statistical analyses, applying regression techniques to data from 59 countries grouped by gross national income (GNI), low-income, middle-income, and all countries. GHSC-PSM found 11 policies[48] that were statistically significant predictors of increased mCPR or expanded private sector method-mix strategies in one or more GNI groups. The project selected two policies for the initial dissemination phase: increasing government share of spending on contraceptives and using a logistics management information system (LMIS) to manage contraceptive commodity data. These policies have immediate relevance in the global health supply chain domain.

In Q1, GHSC-PSM presented these findings to USAID's Office of Population and Reproductive Health (PRH), prompting discussions on advocacy strategies to secure increased government spending on contraceptives and improve the functionality of an LMIS. GHSC-PSM and the USAID Commodity Security Logistics (CSL) Division co-led a panel discussion to disseminate research findings among global FP partners, focusing on the practical implications of these findings. This new evidence linking LMIS to contraceptive prevalence reinforces the current direction of supply chain programming, where LMIS is an integral part of a digital supply chain ecosystem that supports data-driven, proactive solutions to prevent stockouts. Domestic resource mobilization, including increased government financing for contraceptives, is a goal of many FP stakeholders. This approach becomes essential to sustain resources amidst shifts or shortfalls in donor funding. Given the many competing development and health priorities countries face, this new evidence that government financing for contraceptives drives positive health outcomes reinforces and encourages ongoing efforts.

Enhancing the visibility of FP/RH supply data

GHSC-PSM is a key contributor in supporting the strategic development and scale-up of the VAN platform and processes. The VAN is the RH community's pioneering initiative to increase supply chain visibility, improve stakeholder collaboration, and ensure the availability of timely and complete VAN data for collaborative decision making. In Q1, the project continued supporting GHSC-PSM Premium Member VAN countries in data reporting and analysis and with Kenya, who expressed interest in becoming a premium member. Activities conducted in supporting Kenya's transition to premium membership included presenting the scope of premium membership to the Kenya Mission, obtaining support agreement from USAID GFPVAN team and RHSC, discussing sponsorship for membership fees, and coordinating with GHSC-PSM Afya Ugavi and RHSC to define roles and responsibilities.

[48] The 11 policies include: contraceptive security (CS) committee has legal status, CS committee meeting frequency, government's share of spending on contraceptives, private sector method mix strategy (i.e., number of methods offered), made an FP2020 commitment, number of methods on the national essential medicines list, use of an LMIS to manage FP commodities, FP client charges are covered by health insurance (public sector), clients are charged for FP commodities in the public sector (negatively correlated with mCPR), clients are charged for FP services in the public sector (negatively correlated with mCPR, positively correlated with method mix strategy), duties are charged on FP commodities in the private sector (negatively correlated with mCPR).

Following is the summary of the activities performed for Q1:

- Coordination with USAID and RHSC to review Kenya's qualification for premium membership.
- Management of the Automated Requisition Tracking Management Information System. (ARTMIS)-VAN integration, conducting regular reviews and data quality process checks to ensure timely updates. Performed a root-cause analysis of any data integration issues.
- Tracking VAN use and a presentation VAN use cases and usage trends across the different membership types and support levels to USAID CSL Topical Tuesday. Usage trends show increased collaboration among funders, procurers, suppliers, and MOHs, enhancing data visibility for RHSC and MOH stakeholders.
- Coordination with the GHSC-PSM Nigeria country office to begin stakeholder engagement and plan sessions to support integrating the Nigeria health LMIS and the VAN.
- Participation in the VAN Steering Committee (GHSC-PSM is a non-voting member) and provided input to the manufacturing subcommittee on GHSC-PSM's supply chain data definitions and opportunities for standardization across the FP community.
- Participation in regular VAN working groups, including the following task forces: data management, technical management, data sharing, systems strengthening, super users, and analytics.

COUNTRY SUPPORT

In FY 2021 and 2022, **Ethiopia** faced a significant shortfall in funding for contraceptive procurement, leading to disruptions in the national supply chain. In response, the MOH with support of GHSC-PSM developed a national strategy for reproductive health commodity security (RHCS) for 2022–2026, focusing on access to family planning services, stakeholder coordination, resource mobilization, and supply chain management.

In the strategy's initial phase, GHSC-PSM conducted an in-depth analysis of stock trajectory and financial gaps. Using these findings, GHSC-PSM advocated for increased funding and demonstrated to critical stakeholders, including parliamentarians, the Ministry of Finance, the Ministry of Development and Planning, and development partners, the impact of financial constraints on contraceptive supply.

Advocacy efforts mobilized additional funding from development partners, addressing some of the financial and commodity gaps. In Q1 2022, UNFPA established a compact agreement with the government to co-finance family planning commodities, leading to the government treasury fund growing from USD 0.9 million to USD 2 million. In FY 2023 and 2024, USAID, the Bill and Melinda Gates Foundation, Thompson and Buffet, and the Packard Foundation entered into a multi-partner compact agreement with the Ethiopian government, facilitating an additional 3 million USD from the government treasury. As a result, the financial demand coverage rate increased from 33 percent to 89 percent, and the government treasury's contribution to contraceptive procurement increased from three percent to 13 percent.

These strategic financial interventions led to a marked improvement in the availability of contraceptives at service delivery points (SDPs) across Ethiopia. Analysis of SDPs' requisitions and reports for family planning

commodities revealed that the overall contraceptive stockout rate at SDPs had decreased to 3.5 percent in Q1 FY 2024, a substantial reduction from 5.2 percent in Q1 FY 2023.

Building on this success, in Q1 FY 2024, GHSC-PSM organized advocacy workshops with MOH representatives, key cabinet members from regional governments, regional health bureaus, NGOs, and civic associations in three regional states. These workshops aimed to leverage more domestic resources from regional governments for contraceptive procurements. The project also continued providing the MOH and stakeholders with capacity-strengthening support on domestic resource advocacy and planning.

GHSC-PSM plans to continue supporting RHCS strategy implementation and ensuring ongoing funding for family planning commodities. In collaboration with UNFPA and other partners, GHSC-PSM is developing further advocacy plans to enhance domestic resource mobilization and support the long-term sustainability of reproductive health commodity security in Ethiopia.

In **Ghana**, the lack of a strategy hindered a coordinated approach to reducing FP commodity stockouts in the public health sector. To address this, GHSC-PSM collaborated with the Family Health Division of the Ghana Health Service to develop the Family Planning Stockout Reduction Strategy (FPSRS) in Q1 FY 2024. The FPSRS, informed by end-use verification (EUV) data and insights from various stakeholders, outlines critical supply chain interventions for the next five years to reduce FP commodity stockouts. It includes a risk mitigation plan and a performance monitoring plan, essential for minimizing risks and tracking progress.

Securing funding for full implementation of FSPRS remains a top priority. In FY 2024, the Ghana Health Service, supported by GHSC-PSM, plans to engage stakeholders in mobilizing the necessary financial resources. Implementation of the FPSRS will significantly improve the availability of FP commodities and services, especially in remote areas, addressing the 'last mile' distribution challenge. By enhancing FP commodity distribution, this strategy also aligns with Ghana's FP 2030 commitments, marking a crucial step toward sustainable FP services nationwide.

Haiti's quantification approach for estimating family planning product needs relied exclusively on demographic or population data. This led to a lack of comprehensive and accurate understanding of product distribution and utilization within the health system. To address this challenge, the Family Health Directorate (DSF) and GHSC-PSM launched an initiative to enhance logistical data quality in the FP supply chain. This involved conducting the first-ever validation of logistics data at various levels of the supply chain, including national, provisional, and service delivery points.

In Q1, GHSC-PSM supported a data validation workshop that gathered 20 participants representing all geographical departments of Haiti. The primary objective of this workshop was to assess the reliability of data throughout the health care system by comparing data against primary sources and identifying potential issues. Participants conducted quantitative analyses of logistical data using a customized Excel tool to identify inconsistencies and engaged in in-depth discussions examining the data, focusing on data completeness. Any gaps or inconsistencies were addressed in real-time through collaboration with on-site staff, emphasizing an interactive and collaborative approach to data management. Participants identified several challenges, including forecasting inaccuracies, distribution bottlenecks, and data inconsistencies.

The data validation exercise provided detailed insights into consumption trends for FP products, enabling more accurate quantification and forecasting. This critical information aids stakeholders such as USAID, UNFPA, and MOH in making informed decisions that enhance national supply chain effectiveness.

The workshop concluded with a set of recommendations aimed at improving the supply chain. These included integrating advanced data validation techniques, establishing regular training programs, creating a structured framework for DSF to promote continuous data quality improvement, and implementing software tools for more efficient supply planning.

In **Malawi**, GHSC-PSM maintains a continuous supply of USG-funded health care commodities to nearly 700 SDPs. However, in Q1 2024, the project identified critically low stock levels of FP products, specifically long-lasting contraceptives and progestin-only pills, across all levels of the supply chain, including central, regional, and service delivery points. These products fell below the recommended months of stock, defined as less than one month's supply at SDPs and less than six months at the central level. Poor data quality and a surge in demand for commodities such as depot medroxyprogesterone acetate (DMPA-SC), particularly at the community level, primarily caused these shortages.

GHSC-PSM worked with the VAN team to expedite shipments and advance FY 2024 order placements. This collaboration resulted in quick order approvals by procurers, often within a week of the request. GHSC-PSM also processed all FP orders in the ARTMIS system by the end of Q1. To mitigate future shortages, strategies include deploying technology for supply analysis, conducting quarterly reviews for accountability, ensuring timely order placements, and collaborating with the RHCS supply chain team for effective distribution planning and assessments.

B4. MATERNAL, NEWBORN, AND CHILD HEALTH

A total of **14 countries[49] received MNCH supply chain strengthening** support **in Q1 FY 2024.**

Three countries received deliveries of MNCH medicines and commodities in Q1. Over the life of the project, GHSC-PSM has delivered a total of **$28.2 million in MNCH commodities**, including **$308,465 in Q1.**

The project **shared MNCH supply chain expertise** with partners **at two global events in Q1**, aimed at improving the availability of and procurement practices for key MNCH medicines and equipment.

GHSC-PSM supports USAID's efforts to prevent child and maternal deaths by increasing access to quality-assured medicines and supplies under the maternal and child health (MCH) task order. The project provides global technical leadership on MNCH commodities and ensures that the global dialogue and initiatives include supply chain management considerations.

This section of the GHSC-PSM report summarizes achievements under the MCH task order objectives in Q1 FY 2024, including the core work contributing to the global dialogue on priority MNCH issues and the performance of the project's global supply chain and country offices. The MCH task order objectives are as follows:

- **Objective 1. Provide international MNCH supply chain leadership and guidance:** GHSC-PSM contributes to the global MNCH commodity and supply chain knowledge base, engages with technical coordination bodies, and promotes international MNCH and supply chain best practices.
- **Objective 2. Support data-informed health supply chain decision making for MNCH commodities**: The project implements and trains staff to use MNCH data collection and analysis tools, advocates for data system investments, and works with countries to demonstrate the value of timely and accurate data for commodity management.

[49] GHSC-PSM provided MNCH technical assistance to 14 countries in Q1 of FY 2024: AFRICA: Burkina Faso, Ethiopia, Ghana, Guinea, Kenya (TO5), Liberia, Malawi, Mali, Mozambique, Nigeria, Rwanda, and Zambia; CARIBBEAN: Haiti ASIA: Pakistan.

- **Objective 3. Improve adherence to globally recognized best practices in MNCH commodity management:** The project develops procurement, storage, and distribution resources and partners with national governments to implement MNCH commodity management best practices.

- **Objective 4. Enhance in-country MNCH supply chain coordination and collaboration:** GHSC-PSM guides national governments as they lead and institutionalize coordination among sub-national partners, programs, and donors involved in MNCH service delivery and commodity selection and management.

- **Objective 5. Conduct ad hoc strategic procurement and delivery to increase the availability of quality-assured MNCH commodities** in project-supported countries.

GLOBAL MNCH SUPPLY CHAIN LEADERSHIP AND GUIDANCE

Warehousing Center of Excellence resource

GHSC-PSM designed the Center of Excellence (COE) initiative to accelerate change management across warehouses and warehouse systems through continuous operations improvement using "lean" methodology. A lean supply chain is focused on delivering products to the end customer in the most efficient way and with the least amount of waste. Under the COE, logisticians prepare the supply chain and warehouse management systems for activity-based costing (ABC) to become more efficient and cost effective, allowing country governments to focus on other priority initiatives to improve the health of their citizens.

During Q1, GHSC-PSM finalized the COE field guide, "How to Operate the Center of Excellence: Winning the Logistics Game." The guide focuses on overcoming constraints, eliminating excess travel and labor, and enabling different warehouse teams to work and complete their tasks simultaneously– rather than waiting on other teams to finish–ultimately reducing warehouse order cycle times. In Q2, the project will publish and disseminate the guide and accompanying resources.

Increasing collaboration on maternal health

Strong health systems that ensure the availability of quality maternal health products such as uterotonics, tranexamic acid (TXA) for postpartum hemorrhage (PPH), and medicines that address HDP are important in reducing maternal mortality. In keeping with the global PPH roadmap, GHSC-PSM supports the improved availability of these products through assessments, workshops on medicine quality, global leadership, and information sharing.

MNCH procurement presentation. In Q1, GHSC-PSM presented its recently updated MNCH procurement manual at a webinar led by the USAID-funded Medicines, Technologies, and Pharmaceutical Services (MTaPS) program. The event focused on sub-national procurement of MNCH commodities and hosted over 100 participants worldwide.

Maternal Caucus sub-chair appointment. As part of its global leadership efforts, GHSC-PSM participates in the RHSC, a global partnership of agencies that brings together donors, international and domestic NGOs, manufacturers, and professional organizations to improve the availability of critical health

supplies. GHSC-PSM participates in the Maternal Health Supplies Caucus (MHS Caucus), a subgroup within RHSC. In Q1, the MHS Caucus appointed the project's MCH Deputy Director Siobhan Perkins as a sub-chair. As part of this role, the project evaluated the MHS Caucus work plan and supported the launch of a TXA working group, which will bring together individuals and organizations to coordinate around increasing access and uptake of TXA.

WHO convening on prioritizing maternal and newborn commodities

In Q1, GHSC-PSM participated in the Technical Convening on Prioritizing WHO-recommended Maternal and Newborn Health Commodities in Geneva, Switzerland. In consultation with the broader global health community, WHO recently built on the UN Commodities Commission for Women and Children's (UNCoLSC's) set of prioritized MNCH commodities (established in 2012), and drafted an updated, prioritized list focused on maternal and newborn health (MNH) commodities. The purpose of the Q1 convening was to build consensus on the final list of commodities and discuss the contents of future implementation guidance. Following the convening, WHO and participating organizations began developing implementation guidance, aimed at scaling up the prioritized commodities and accelerating progress in achieving global MNH targets. GHSC-PSM coordinates the supply chain subgroup of this work and shares its learnings from implementation in project-supported countries. The project will continue to work with this group to review the list of MNH commodities prioritized for scale-up and provide feedback on the final implementation guidance.

SUPPORT FOR DATA-INFORMED DECISION MAKING FOR MNCH COMMODITIES

Collecting and using end-use verification survey data

The EUV survey assesses commodity availability, storage conditions, and factors that affect commodity availability and quality at SDPs in project-supported countries. EUV data collection is also an opportunity for GHSC-PSM country teams to provide on-site capacity building for SDP staff and MOHs. The project also gathers supplemental qualitative data on stockout reasons and cross-checks LMIS data accuracy on stock availability trends.

In Q1, the project supported teams in Burkina Faso, Ghana, and Nigeria to collect EUV data and submit EUV reports to USAID/Washington and their respective in-country stakeholders.

Results from the EUV in Burkina Faso. In Q1, Burkina Faso's EUV report demonstrated several key findings across MNCH commodities:

- Data on key commodities including amoxicillin, magnesium sulfate, oxytocin, and zinc and oral rehydration salts (zinc + ORS) co-packs showed an overall decrease in stockouts over the last three survey rounds, despite minor increases in stockouts since the previous survey round for oxytocin and zinc + ORS.
- The recent increase in stockout rate for commodities like zinc + ORS co-pack can be partially explained by the transition to exclusive acquisition of the product by the central warehouse following the end of UNICEF funding.

- Storage conditions for oxytocin continue to improve across the country, with 85 percent of oxytocin stock in SDPs stored in the cold chain—an increase of two percent since the previous survey round. This can be partially attributed to increased collaboration with the Expanded Programme on Immunizations (EPI) manager in Burkina Faso, who has worked with their teams to increase shared cold storage space.

Improving data analytics and information systems for MNCH commodity decision making

Implementing and refactoring data analytics tools. In Q1, GHSC-PSM continued to update its catalog of data analytics tools that supply chain staff use alongside electronic logistics management information systems (eLMISs) to analyze MNCH commodity data and inform commodity management decisions. The catalog, available to GHSC-PSM staff and some partners, describes each tool, its platform, and the data it requires to function. The catalog is beneficial to project partner countries with nascent eLMISs, providing a blueprint of analytics tools that already exist and have proven effective in supporting critical supply chain decisions. GHSC-PSM also refactors select tools from the catalog, making the tools' code more widely usable, and helps countries implement these refactored tools in their health and logistics systems. With recent additions to the catalog, 44 unique tools are now available.

In Q1, the project provided technical support for deploying refactored data analytics tools to increase visibility throughout the supply chain. Highlights from this work in Q1 include:

- In **Liberia**, GHSC-PSM is helping operationalize and hand over the Data Extraction and Consumption Anomaly tools. These tools enable the optimization of stock monitoring for commodities in health facilities and medical stores. In Q1, the project updated the Python codes that enable faster data processing and effective tracking of stock imbalances. The MOH is evaluating the potential benefits of integrating the refactored tools into Liberia's eLMIS, and continuing discussions with the project about how best to leverage the tools to improve visibility and analysis.

- In **Malawi**, GHSC-PSM developed the Consumption Anomaly Detection (CAD) tool to streamline stock data for analysis. CAD flags or detects anomalies in consumption for improved commodity management. The refactored tool was designed and launched to complement the country's eLMIS and overall data ecosystem. GHSC-PSM continued to operationalize the tool and began planning a second round of CAD user training in Q1.

ENHANCED IN-COUNTRY MNCH SUPPLY CHAIN COORDINATION AND COLLABORATION

Guinea MOH moves to improve oxytocin storage

GHSC-PSM worked with the Guinea MOH to create a maternal health advisory committee made up of staff from the MOH, Central Medical Store, National Vaccine Program (PEV), Guinean Society of Midwives, UNFPA, and other stakeholders. This advisory committee meets regularly to discuss strategies to improve maternal health outcomes, including improved management of uterotonics such as oxytocin. As a result of these efforts, in Q1, Guinea's Minister of Health signed a decree instructing health facilities

and supply chain workers to store oxytocin in the EPI cold chain throughout the country's health system. This ministerial decree formalizes an agreement between the project, PEV, and the MOH's Directorate of Family Health and Nutrition to improve oxytocin storage through several measures. GHSC-PSM designed a plan to implement the ministerial decree in all Guinean health facilities and is coordinating with the Central Medical Store to ensure it procures only quality-assured and appropriately labeled oxytocin. These efforts aim to address maternal mortality and disability caused by PPH.

IMPROVED ADHERENCE TO BEST PRACTICES IN MNCH COMMODITY MANAGEMENT

Quality testing of HDP medicines in Nigeria and Malawi

In Q1, GHSC-PSM, in collaboration with Monash University, the Burnet Institute, and the USAID Promoting the Quality of Medicines Plus, or PQM+, program, developed a quality sampling and testing protocol for magnesium sulfate, aspirin, and select antihypertensives in Malawi and Nigeria. The project and its partners will use this protocol to conduct research on the quality of medicines available for managing HDP. In Q2, GHSC-PSM expects sampling to occur. Following the study, the project will submit its results for consideration to be published in a relevant peer-reviewed, open-access journal.

Newborn supply chain support

In Q1, GHSC-PSM continued to work with USAID, UNICEF, NEST360, WHO, and other partners to build on the achievements of the previous years and increase global efforts to improve newborn health. With the growing consensus that achieving the Sustainable Development Goals requires increased focus on facility-based care for small and sick newborns (SSNBs), GHSC-PSM is accelerating its supply chain technical assistance to advance newborn health at global and national levels.

Supporting Every Newborn Action Plan (ENAP) and global newborn care initiatives. In Q1, GHSC-PSM reviewed and compared global newborn health guidance from WHO and national newborn health guidelines from Bangladesh, Ghana, India, Nigeria, Sierra Leone, and Tanzania. The review assessed the guidelines' level of alignment and will inform updated global WHO guidelines. In Q1, GHSC-PSM presented its findings at a WHO technical convening. The project will provide technical assistance to ENAP's commodities working group throughout FY 2024 to update the list of desirable and essential commodities for newborn health using the information gleaned from this assessment.

Assessing medical devices and consumables for SSNBs in Ghana. Following a FY 2023 landmark assessment, in Q1 FY 2024, the project published the full assessment report on the availability and quality of newborn medical devices and the capacity of health workers to use and maintain this equipment in Ghana within the oxygen/respiratory ecosystem. In Q2, GHSC-PSM will continue to disseminate the report and key findings through additional resources and learning events to ensure that lessons from the assessment can inform additional countries' strategies to improve newborn health.

AD HOC STRATEGIC PROCUREMENT TO INCREASE AVAILABILITY OF QUALITY-ASSURED MNCH COMMODITIES

GHSC-PSM supported the process for six countries[50] to procure MNCH essential medicines and consumables in Q1, including select **essential medicines** that were in critically short supply in **DRC, medicines for cholera** patients in **Haiti**, and **ORS + zinc** for children in **Mozambique.**

Supporting the procurement of newborn and pediatric oxygen

Also in Q1, as part of USAID efforts to leverage "COVID-19 funds to strengthen oxygen ecosystems for maternal and newborn health and future pandemic preparedness," GHSC-PSM began conducting assessments in several countries using project-developed tools to estimate their needs for newborn and pediatric medical equipment, and determine what could be procured to meet those needs. This work is expected to improve the quality of care for newborns and children by strengthening the respiratory ecosystem in these countries.

PROGRESS BY OBJECTIVE

C1. GLOBAL COMMODITY PROCUREMENT AND LOGISTICS

Delivered 1,210 line-item orders in Q1, with a value of $169 million. Total value over the life of the project is over **$5.22 billion**.

Delivered 89 percent of line items on time, based on the defined on-time window (within the period 14 days before or seven days after the agreed delivery date). **Delivered 87 percent on-time and in-full.**

C1a. GLOBAL SUPPLY CHAIN: FOCUSED ON SAFE, RELIABLE, CONTINUOUS SUPPLY

GHSC-PSM's procurement strategy focuses on three primary objectives:

[50] GHSC-PSM supported procurement processes of MNCH commodities for 6 countries in Q1 FY 2024: DRC, Guinea, Haiti, Mozambique, Nigeria, and Zambia.

1. Maintain on-time deliveries, despite the war in Ukraine, the military coup in Niger, and several natural disasters.

2. Balance price, delivery, and quality to achieve the best value.

3. Reduce response/cycle times, lead times, and transaction costs.

The project focuses on the performance and management of overall commodity and supply chain costs through the following initiatives:

MORE HEALTH COMMODITIES THROUGH MARKET DYNAMICS, STRATEGIC SOURCING, AND SUPPLIER MANAGEMENT

GHSC-PSM works across project teams and external stakeholders to understand the markets for the medicines and health commodities it procures. The project develops sourcing strategies, builds strategic relationships with suppliers that shape markets, enhances project performance, and achieves greater value for USAID within each product category. GHSC-PSM conducts market analyses, leads strategy development, employs sourcing best practices, contributes to process improvements, and negotiates and proactively manages contracts with suppliers and 3PLs. The project executes sourcing activities for products under each health area in line with the strategic sourcing calendar and undertakes additional sourcing for products to support USAID's COVID-19 response. See sections B1, B2, B3, B4, and Annex A for details. Q1 highlights include:

- Received 25,650 vials of CAB-LA at the Belgium regional distribution center (RDC) to support PEPFAR PrEP programs in Malawi, Ukraine, Zambia, and Zimbabwe as directed in the PEPFAR FY 2024 (Country Operational Plan 23) Technical Consideration for HIV Prevention Programming. The project initiated shipping of CAB-LA to Malawi (5,400 vials), Ukraine (1,350 vials), Zambia (14,850 vials), and Zimbabwe (4,050 vials) and expects delivery in Q2 to support PEPFAR PrEP programs.

- Collaborated with GHSC-QA to complete the ready-to-use therapeutic food product and supplier eligibility process in anticipation of FY 2024 procurement needs. (See section B4 for more information.)

- Completed a semi-annual rate refresh for freight and logistics 3PLs using an updated evaluation criterion. The revised criterion includes a comprehensive assessment of factors such as on-time performance, electronic data interchange (EDI) efficiency, invoice timeliness, and quality considerations on shipments. This refined approach ensures that the selection of 3PL providers remains aligned with the overarching goal of delivering the best service to countries.

- Attended the 2023 Annual ARV Buyers-Sellers Summit in Maputo, Mozambique. GHSC-PSM met with MOH representatives, strategic ARV suppliers, the Global Fund, the USFDA, SAHPRA, and other procurement service agents (PSAs). GHSC-PSM participated in panel discussions and highlighted the program's effective use of non-price factors in its sourcing strategies. These meetings focused on advancing GHSC-PSM's VMS strategy and educating countries within the region about the benefits of the VMS program. In collaboration with the Global Fund and USAID,

GHSC-PSM, convened a meeting to explore how the Global Fund could leverage stock available at VMS supplier warehouses. (See section B1 for more information.)

Supplier relationship management

GHSC-PSM prioritizes building relationships with suppliers by encouraging dialogue on procurement and logistical challenges. In addition to scheduled calls to manage ongoing orders, routine business meetings with suppliers keep the project up-to-date on products, production capacities, delivery schedules, and quality matters. GHSC-PSM held a virtual conference with essential medicines suppliers, met with TO3 suppliers at a global meeting in Copenhagen, and engaged with ARV suppliers at the annual ARV Buyer/Seller Summit in Maputo.

Commodity and supplier risk profiles inform the project's supplier performance assessments and order allocation strategies. In Q1, the project conducted business reviews for 15 TO1 suppliers, one TO2 supplier, and seven TO3 suppliers. In Q2, GHSC-PSM plans to conduct business reviews with more than 20 additional suppliers for TO2.

Operational excellence

In Q1, GHSC-PSM developed, launched, and enhanced the following operational cost-reduction initiatives:

- **Invoice-to-pay (ITP) tool:** Completed a soft launch of version 1.0 of the ITP tool designed to significantly reduce operational costs and lead time in processing invoices. The launch included two suppliers who submitted live invoices. The project approved and paid more than ten invoices through the tool. These suppliers are transitioning toward sole use of the tool instead of the email process. The project introduced the tool to additional suppliers and initiated integration testing with the Chemonics D365 platform.

- **ePackingList (ePL):** Continued to onboard four ARV suppliers and support them in implementing the mapping/message in their systems and generating sample test files for review/revisions. Two of the ARV suppliers successfully completed the onboarding process and are now live, sending GS1 XML Despatch Advice messages for each shipment. The remaining two ARV suppliers are resolving internal issues and are expected to complete onboarding by the end of Q2.

- **Electronic Data Interchange (EDI):** Conducted several informational and strategy sessions with USAID to discuss and develop a TO1 EDI strategy. Through a competitive RFP process, GHSC-PSM identified a third-party software as a service (SaaS) provider to enable the project to improve the speed and accuracy in which it conducts trades with supply partners. The project aims to automate the data exchange of four standardized transactions (order, order confirmation, despatch advice, and invoice) that incorporate GS1 standardized identifiers (GTIN, GLN, and SSCC). Transactional data will flow through EDI between the GHSC-PSM ecosystem (ARTMIS, InforNexus, and D365) and health commodity suppliers to support D-Term order management and enhance operational efficiency. GHSC-PSM expects to launch this initiative in Q2.

- **Electronic Proof of Delivery (ePOD):** Selected one 3PL and one supplier for the initial ePOD proof of concept and worked with the 3PL to support ingesting the ePL and designing the XML message they will use to send ePOD data to GHSC-PSM. The project will complete development

of the ePOD receiving table and extraction logic in Q2 and is on target to test the ePOD proof of concept with the 3PL for two shipments in early Q2.

- **Sourcing Assistance Messenger (SAM):** SAM works as a virtual assistant to help procurement teams manage the order lifecycle in a collaborative fashion. It generates alerts and warnings to prompt follow-up to avert delays and allows the procurement team to provide comments and update OTD assessments. SAM maintains an up-to-date performance view of operations. In Q1, the project deployed changes that aimed to improve the user experience and robustness of the system and received positive feedback and suggestions through the user community survey.

- **Order allocation tools:** Launched two new allocation tools, covering VMMC and 3HP FDC products. Additionally, the project maintained and continued to enhance order allocation tools for commodity groups, such as essential medicines, lab (including HIV and malaria), condoms, and ARVs. In Q1, these automation tools collectively processed over 125 requisition orders (ROs), generated over 250 email communications to suppliers (request for information, intent to award, letter of decline, etc.), and recommended allocations for more than 195 RO lines.

Regional distribution center operations

In Q1, GHSC-PSM leveraged the three RDCs to deliver commodities valued at over $12.5 million to 14 countries. All three RDCs achieved 100 percent on inbound performance, where all products were received into the RDC on time, and outbound performance, which includes orders processed on time. The RDCs did not deliver TLD this quarter.

In Q1, the project destroyed a tranche containing three pallets of expired or damaged products at the Belgium RDC and facilitated the collection and destruction of another tranche from the Dubai RDC at an approved destruction site in France. Over the life of the project, GHSC-PSM has destroyed a total of five tranches. A stock account audit was performed at the Dubai RDC, resulting in a 100 percent stock count accuracy. The project also finalized contract modifications to extend the RDC performance period until November 2024 for all three RDCs.

Decentralized procurement (DCP)

In Q1, GHSC-PSM achieved 88 percent OTD for orders managed through the DCP channel. In line with the project's strategy to maintain decentralized procurement capability in Africa, in Q1 in **Kenya**, the project continued to procure laboratory commodities for **Kenya** and **Tanzania**. GHSC-PSM also delivered test kits for VL testing equipment for the new VL testing platform in **Kenya**, making the new instruments operational and the transition complete.

In **Ethiopia**, GHSC-PSM facilitated the importation of VL equipment for a new testing platform. The project expects the new platform to be operational for commodity procurement in Q2.

GLOBAL STANDARDS

GHSC-PSM operationalizes its procurement requirements for pharmaceuticals, medical devices, sterile kits, laboratory reagents, and LLIN suppliers to adopt standardized product identification and labeling, and exchange product master data leveraging GS1. These supplier requirements include:

- *Identification:* Assigning GTINs that identify trade items and Global Location Numbers that identify business entities and locations.

- *Capture:* Labeling specified packaging levels with barcodes encoded with GTIN, batch/lot, expiration date, serial shipping container code, and (for pharmaceuticals and LLINs) serial number.

- *Share:* Exchanging standards-based, descriptive product master data through the GDSN.

In Q1, the project continued to engage with suppliers and the global health community to advance adoption of these standards across the GHSC-PSM portfolio, thus laying the groundwork to use these data in global and national supply chain processes and systems. The project advances compliance through regular engagement with suppliers for all items. In Q1, the project:

- Collected, validated, and added GTINs for 154 items to the GHSC-PSM catalog.

- Collected master data for 56 items through the GDSN and maintained data on all items in the catalog. In Q1 alone, the project sent and received more than 1,050 messages in the GDSN.

As of Q1, the GHSC-PSM catalog had 1,236 total in-scope items.[51]

Quality assurance

GHSC-PSM streamlines and optimizes QA and quality control (QC) business processes and procedures to rapidly address product incidents and failures as they occur, ensuring quality products reach the consumer. Highlights in Q1 included:

- Facilitated collaboration of QA activities between GHSC-PSM's suppliers and clients to manage quality incidents by expediting product quarantines to ensure patient safety and facilitating QA determination for product disposition/replacement to avert stockouts.
- Received 25 new incidents across HIV/AIDS, FP/RH, and MNCH health areas and completed 24 cumulative incidents (including those from previous quarters), leaving about 19 open incidents as of the end of Q1.
- Leveraged meetings and incident correspondences with country offices to continue to enforce on-time reporting of quality incidents (especially those related to temperature excursions) and adherence to SOPs. This process ensures that only quality products are distributed to the end user.
- Worked with the USAID Transition Working Group and GHSC-QA to facilitate and support a smooth transfer of QA-related data, documentation, processes, and activities to applicable NextGen PSA and/or Qualifying, Testing, and Issuing project partners.
- Worked with GHSC-QA to validate and approve most product pick-up locations for HIV, malaria, and FP/RH commodities and optimize internal processes accordingly (i.e., automation of systems so that only approved locations can be selected). This is in line with the GHSC-PSM-initiated corrective and preventive action (CAPA) related to holding suppliers responsible for compliance against good storage and good distribution practices during product shipment or storage at the

[51] Subject to requirements, actively procured in the past, and available for procurement in the future.

pick-up locations while the product is in their custody. The project also began creating a business process for managing/registering product pick-up locations.

For QA related to malaria commodities, see section B2: Malaria.

IMPACTS OF GLOBAL CHALLENGES ON FREIGHT AND LOGISTICS

Global challenges

In Q1, the Economic Community of West African States, or ECOWAS, embargo on Niger, imposed since July 2023, continued to be in effect. Many GHSC-PSM shipments destined for Niger continue to be held in Benin due to the port restrictions on transit cargo moving through to Niger. These extensive delays contributed to additional costs.

Climate change remained a significant logistical obstacle, particularly in Europe, where drought has caused low Rhine River levels. This hampered trucking and container operations. GHSC-PSM continued reporting on vessel delays through the Panama Canal, where low water levels limited larger draft vessels from traveling through the canal and resulted in a backlog in cargo.

Air freight

In Q1, air freight capacity continued to rise, with international widebody capacity up by six percent compared to 2019 pre-pandemic levels. The FY 2024 outlook for air freight capacity is stable in capacity and price. An increase in widebody capacity in Asia reduced the demand for freighters.

Airlines continued to focus their routes on popular destinations, often adjusting to demand by switching to various and smaller aircraft types. Although overall airline scheduling is rebounding, the limited capacity for already underserved locations remains a concern, as fewer freighter aircraft serve these routes.

Air freight to Africa remains expensive and less dependable due to the current airline business landscape.

Ocean freight

In Q1, shipping companies continued to manipulate capacity, cancel sailings, and bypass ports, resulting in bookings with increased costs, longer itineraries, infrequent booking revisions, and transshipment delays primarily in response to the Red Sea crisis. Drought across Europe and Latin America prompted shipping companies to levy additional fees on affected itineraries.

The impact of Houthi attacks on vessels transiting through the Red Sea began to escalate in Q1. Carrier strategies were mixed, with some vessel operators pausing to understand the risks, while others changed their sailing schedules, rerouting around Southern Africa. Cost and lead time implications for GHSC-PSM have not yet been quantified, especially as carriers look to backdate new surcharges to cover operating costs.

Fuel shortages, increased fuel surcharges, and capacity constraints due to International Maritime Organization regulations on emissions persisted. These events are negatively impacting the costs and lead times of ocean shipping.

Destination challenges

In Q1, extremist activity, political unrest, and instability remained a concern, particularly in West Africa and Haiti. Tensions continued in Ethiopia, DRC, and Rwanda, affecting GHSC-PSM shipments on domestic flights into DRC.

C1b. PROJECT PERFORMANCE

This section summarizes findings on key indicators of GHSC-PSM global supply chain performance. More detail on these and other indicators is provided in Annex C.

DELIVERY TIMELINESS

GHSC-PSM measures OTD in two ways:

- OTD, the number of on-time deliveries as a percentage of expected deliveries in the period
- OTIF, the number of on-time deliveries as a percentage of all actual deliveries in the period

OTD is a more accurate reflection of recent performance, while OTIF is a lagging indicator, as late orders due in prior periods get delivered.

In Q1, GHSC-PSM OTD was 89 percent and OTIF 87 percent, the 22nd successive quarter that OTD has been above 80 percent (see Exhibits 12 and 13).

Exhibit 12. January 2023 through December 2023 Monthly IDIQ OTD

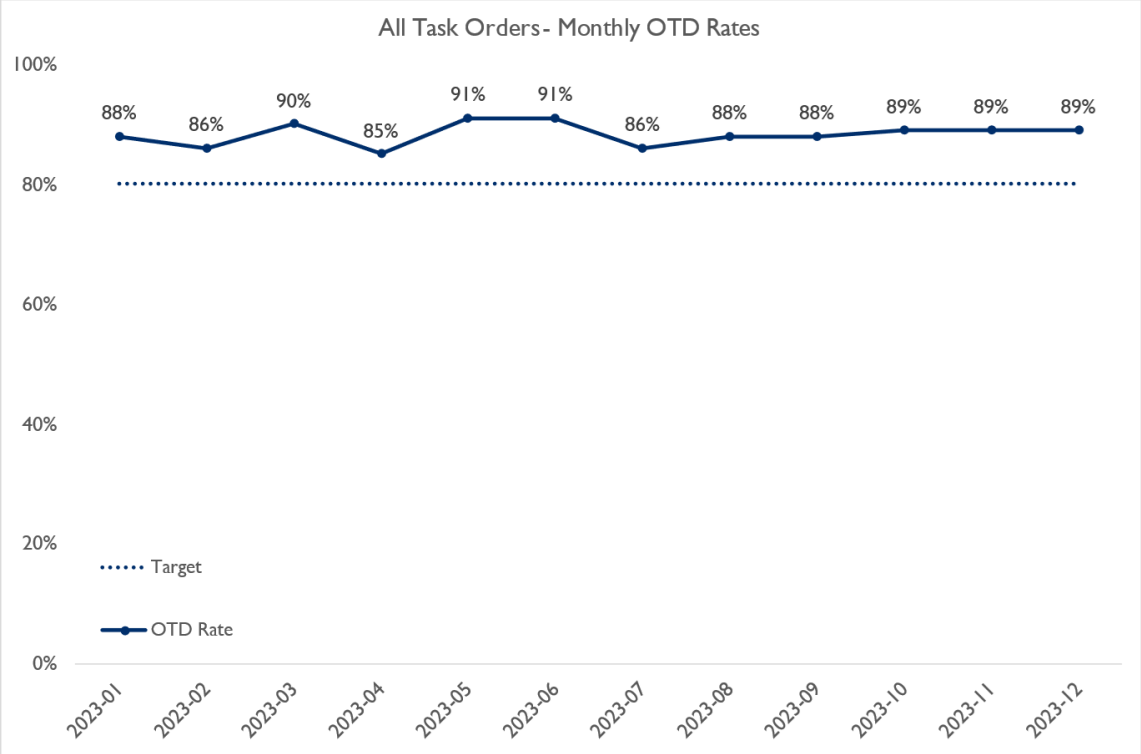
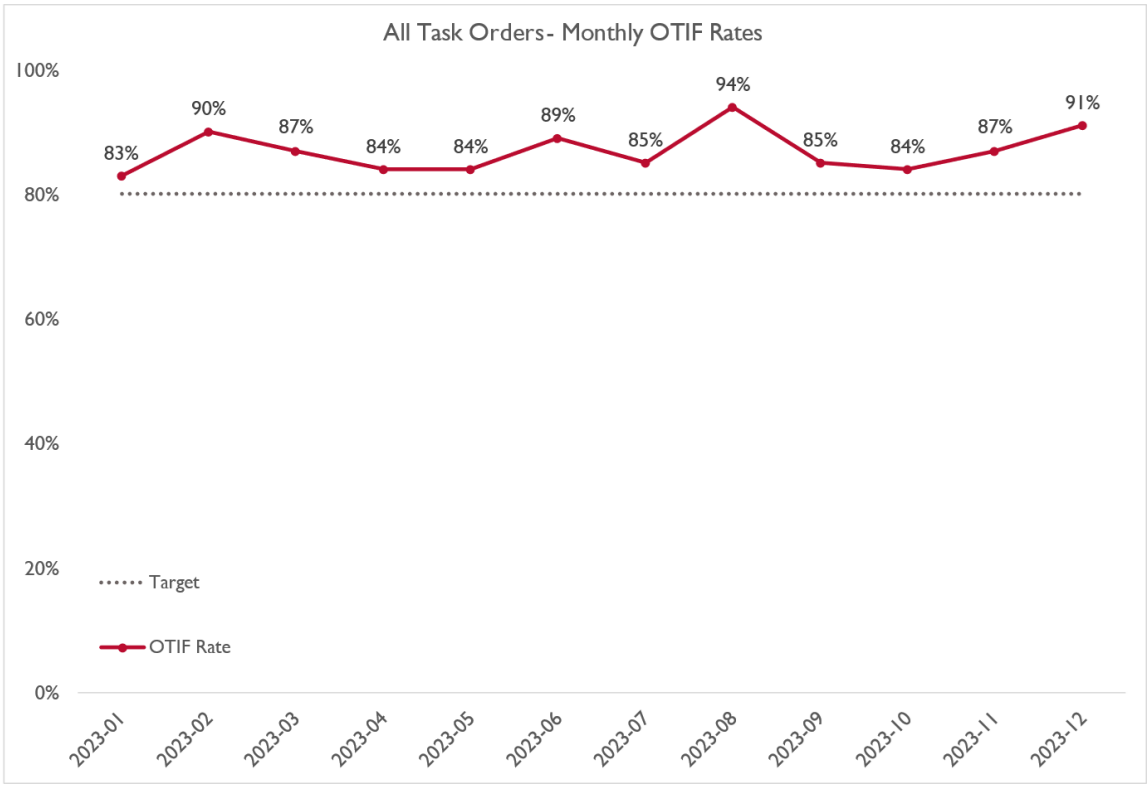


Exhibit 13. January 2023 through December 2023 Monthly IDIQ OTIF



C2. SYSTEMS STRENGTHENING TECHNICAL ASSISTANCE

Assisted 47 countries with health supply chain systems strengthening over the life of the project.

Provided **technical feedback on 181 supply plans this quarter** to strengthen national supply planning capabilities.

Facilitated the **adoption of QAT** for management of forecasting and supply planning **in 42 countries** over the life of the project.

GHSC-PSM's strategic goal is for every country to have a locally led health supply chain that is integrated, optimized, accountable, agile, and lean and can sustainably supply quality products to all citizens. To support this goal, headquarters, and country-based technical specialists work with country teams to define systems strengthening strategies that are appropriate to the local context and can be realistically achieved. The project emphasizes automated data capture and real-time end-to-end data visibility (most notably through advanced analytics, global standards and traceability, forecasting and supply planning, and management information systems), private-sector engagement, pharmaceutical-grade infrastructure, and efficient distribution across countries (through laboratory networks, warehousing, and distribution systems strengthening). Through workforce development, leadership, and governance activities, the project works with country stakeholders to ensure their supply chains are managed by supply chain professionals dedicated to quality improvement. Where possible, the project collaborates on strategies to outsource functions to accountable private sector providers.

ADVANCED ANALYTICS

Advanced analytics enables countries to expand the use of existing data to facilitate decision making across the supply chain, from day-to-day operations to high-level strategy. GHSC-PSM facilitates this process by designing analytic tools that leverage existing investments in management information systems to make data available in real time and meet individual country needs. These tools are repeatable, reusable, and adaptable in various contexts, enabling countries to employ them in a way that encourages and improves self-reliance.

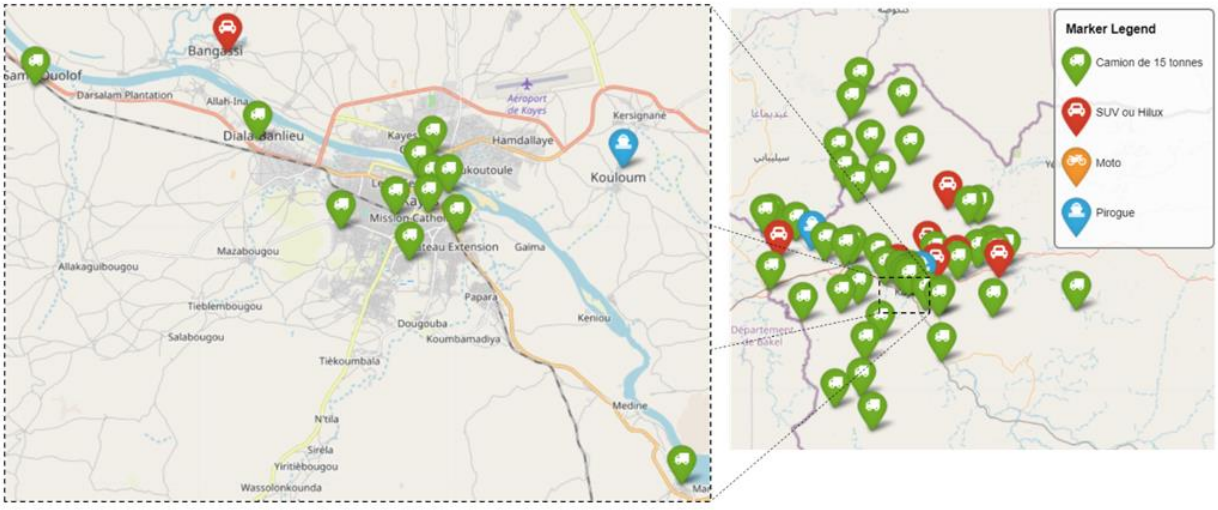
In FY 2024, GHSC-PSM is focused on enhancing the capabilities of analytic tools, facilitating ease of transfer between countries, and removing bottlenecks to expand these tools' use. The project will make country-specific adjustments to data inputs or modeling approaches to ensure sustained operational use and to widen accessibility to the tools and analytic approaches, including with the community on Github (a public site where anyone can download and use open-source software tools).

In Q1, the project refined data flows and incorporated, expanded, or improved the automation of data analytic tools within the country context in Ghana, Mali, Niger, Nigeria, and Zambia. Below are examples highlighting how GHSC-PSM worked with countries to refine analytic tools for improved supply chain data management and use.

- **In Mali**, GHSC-PSM used GIS and survey data, collected in FY 2023 using KoboTools, to build a website visualizing geographic and health facility information for ease of access and use by the Ministry of Health and Social Development (MOHSS). In addition, the project used these survey data and historical order data to expand the use of the **Dispatch Optimizer Tool (DOT)** that was originally developed in Zambia for potential use in Mali. GHSC-PSM used historical data to demonstrate the DOT's ability to aid in dynamic route planning. By adding geo coordinates and road network data to the tool, the MOHSS in Mali will have what it needs to pilot last-mile distribution in two regions where health facilities have been required to travel to collect commodities from their district warehouse. The website and refined DOT were in the final stages of development in Q1. The project's aim is to demonstrate and release them to the government in Q2.

- **Zambia**'s ZAMMSA and GHSC-PSM collaborated on a presentation of the DOT during a panel discussion at the Global Health Supply Chain Summit in Nairobi, Kenya, in November 2023, driving interest from organizations outside the project to use the GitHub repository of the source code for their own distribution efforts.

Exhibit 14: GIS Website Showing the Location and Largest Vehicle Type that Can be Sent to Each Facility in One District in Mali's Kayes Region



- **In Niger,** GHSC-PSM began automating and developing a web application to host a complex analytics process. The project uses this process to help plan monthly distribution quantities to health facilities based on available commodities in the warehouse, prior months' inventory levels, and average monthly consumption. The previous process was Excel-based and was tedious, partially manual, and error-prone, requiring the careful attention of a GHSC-PSM data analyst. By moving it from Excel into an open-source web application with a user-friendly interface and automation, the project can potentially hand the process over to in-country stakeholders, including district or regional health administrators.

GLOBAL STANDARDS AND TRACEABILITY

GHSC-PSM implements GS1 standards to give trading partners—including manufacturers and suppliers, logistics providers, regulatory agencies, medical stores, and health facilities—the means to operate using the same high-quality master data.

In Q1, GHSC-PSM provided technical assistance to seven countries[52] to support their adoption of GS1 standards for product identification, location identification, and data exchange. More information on standards implementation within the project can be found in Section C1. Global Supply Chain and in the Management Information Systems section below.

Adopting global standards can enable countries to reduce costs, enhance efficiency, and improve the availability of health commodities in their public health supply chains. This work also advances the adoption of GS1 labeling and data standards in-country regulatory guidelines and implementation roadmaps.

Country highlights in Q1 include:

- **In Ghana,** provided technical inputs to and convened a series of meetings with stakeholders[53] to finalize and validate the Ghana Food and Drugs Authority (FDA) Guidelines on Implementation of Identification, Data Capture, and Data Sharing for Traceability of Pharmaceutical Products. In Q2, the project expects the FDA will adopt the document, at which point the agency's board will publish the guidelines on the FDA website for one month to allow comments from stakeholders and the general public before final acceptance by the FDA. Furthermore, GHSC-PSM began planning for the implementation of a National Product Registry, which will serve as an authoritative source of product master data in Ghana and a standards-based Automatic Identification and Data Capture (AIDC) in collaboration with Global Fund's Software for Development, or S4D, project.

- In **Kenya,** provided technical support to the Kenya Pharmacy and Poisons Board (PPB) on the Product Master Data (PMD) initiative undertaken to identify the appropriate systems architecture that will accommodate a PMD that aligns with GS1 standards. This activity is anchored on the Kenya Health Products and Technologies (HPT) Supply Chain Strategy, 2020–2025, which recommends adopting GS1 Global Standards for tracking and tracing health products and technologies in the supply chain. Furthermore, the project worked with PPB to engage relevant stakeholders and advocate for developing and implementing a product master data list through a product mapping exercise. The project expects this exercise will take place in Q2 and is aimed at creating a framework for an interoperable and GS1-aligned product master data set.

- **In Zambia,** with the MOH and the Zambia Medicines Regulatory Authority (ZAMRA), expanded the product scope and suppliers required to report product master data through the GDSN. The initial pilot scope was limited to ARV products, while the expanded scope includes malaria medicines, family planning, and MNCH products. The scope also requires Market Authorization Holders to publish product data to Zambia's data pool, which is supported through a partnership

[52] Ghana, Kenya, Malawi, Nigeria, Rwanda, Uganda, and Zambia

[53] This includes pharmaceutical importers and manufacturers, pharmacy council, development partners, and relevant government agencies.

with GS1 South Africa. The project continued implementing the National Product Catalog (NPC) and system configuration for AIDC and participated in steering committee meetings to advance pharmaceutical traceability in Zambia.

- In **Rwanda**, in collaboration with UNICEF, handed over the National Product Catalog (NPC) mobile application to the Rwanda FDA and rolled out its integration with the Traceability and Verification System (TRVST). In 2019, GHSC-PSM supported the MOH to develop and launch the NPC, and subsequently the mobile application to facilitate product verification. In 2023, the Rwanda FDA, with GHSC-PSM and UNICEF, decided to enhance the NPC mobile application to enable users to validate and verify the authenticity of vaccines and other health commodities by scanning GS1 barcodes and confirming that the product scanned is available in TRVST data repository or NPC. Speaking at the handover event, the USAID Mission Director Jonathan Kamin, said, "Today, we add another great achievement to the long list of our brilliant cooperation by handing over the National Product Catalog mobile app to the Rwanda FDA. This app enables regulators and medical staff to quickly and easily verify the authenticity of pharmaceutical products entering Rwanda's market. This app will also be used across Rwanda."

Also, in Q1, GHSC-PSM developed a GS1 Global Trade Item Numbers (GTIN) Data Collection Tool and disseminated it during the Global Standards and Traceability technical working group meeting. The GTIN Data Collection Tool is a resource to aid countries in automating the physical collection of trade item identifiers—the GTIN—encoded in GS1 standardized data carriers[54] that are labeled on physical products. The data collection exercise may be implemented as part of an effort to establish a robust product master data management file that includes trade item–level identification, packaging- level hierarchies, and parent-child relationships between unique trade items and generic product concepts. These resources are part of GHSC-PSM's thought leadership and complement the project's compendium of traceability tools.

FORECASTING AND SUPPLY PLANNING

GHSC-PSM provided FASP technical assistance to 36 countries[55] to integrate FASP capabilities, develop country-led solutions, and improve program managers' ability to maintain enough inventory to meet disease prevention and treatment targets and address client demand. TA included quantification assistance, training, and supply plan monitoring.

Promoting wide adoption of QAT

To date, GHSC-PSM has facilitated the adoption of QAT in 42 countries for managing forecasting and supply planning. This includes Mauritania and Somalia, reached through GHSC-PSM's collaboration with

[54] Specifically, GS1 2D DataMatrix, GS1-128 linear, or EAN/UPC

[55] Angola, Benin, Botswana, Burkina Faso, Burma/Myanmar, Burundi, Cambodia, Cameroon, Côte d'Ivoire, Democratic Republic of Congo, Eswatini, Ethiopia, Ghana, Guinea, Haiti, Kenya, Laos, Lesotho, Liberia, Madagascar, Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Sudan, Tanzania, Thailand, Togo, Uganda, Zambia, and Zimbabwe.

UNICEF. As of Q1, the number of active QAT users worldwide[56] was 1,214. This is even as GHSC-PSM started removing inactive users within each country.

In Q1, GHSC-PSM provided in-person and remote technical assistance to strengthen capacity for QAT[57] use:

- In **Kenya**, facilitated a training on QAT's forecasting module for 25 participants from various countries and organizations, including UNICEF Supply Division, UNICEF Somalia, Somalia Federal Government, Somaliland Regional Offices, UNICEF Malawi, and Malawi Ministry of Health.

- In **Tanzania**, trained 35 participants from GHSC-TA Tanzania, GHSC-PSM Tanzania, Medical Stores Department (MSD), National AIDS & Hepatitis Control Program (NASHCOP), National Malaria Control Program (NMCP), Directorate of Reproductive, Maternal, and Child Health, USAID/Tanzania, USAID/Washington, CDC Tanzania, and others on the QAT forecasting and supply planning module.

- In **Madagascar**, collaborated with Management Sciences for Health (MSH) to train 31 persons on QAT's supply planning and forecasting modules. Participants included staff from the Government of Madagascar's Family Health Directorate, representing Maternal Health, Family Planning, and Malaria Control programs, the Pharmacy, Laboratory and Traditional Medicines Directorate, the Central Medical Procurement Agency and Health Supplies Directorate, USAID Mission, the USAID/ACCESS project, Population Services International (PSI), the MSH regional office, and the MSH/IMPACT project, which hosted the activity.

- Remote technical assistance:

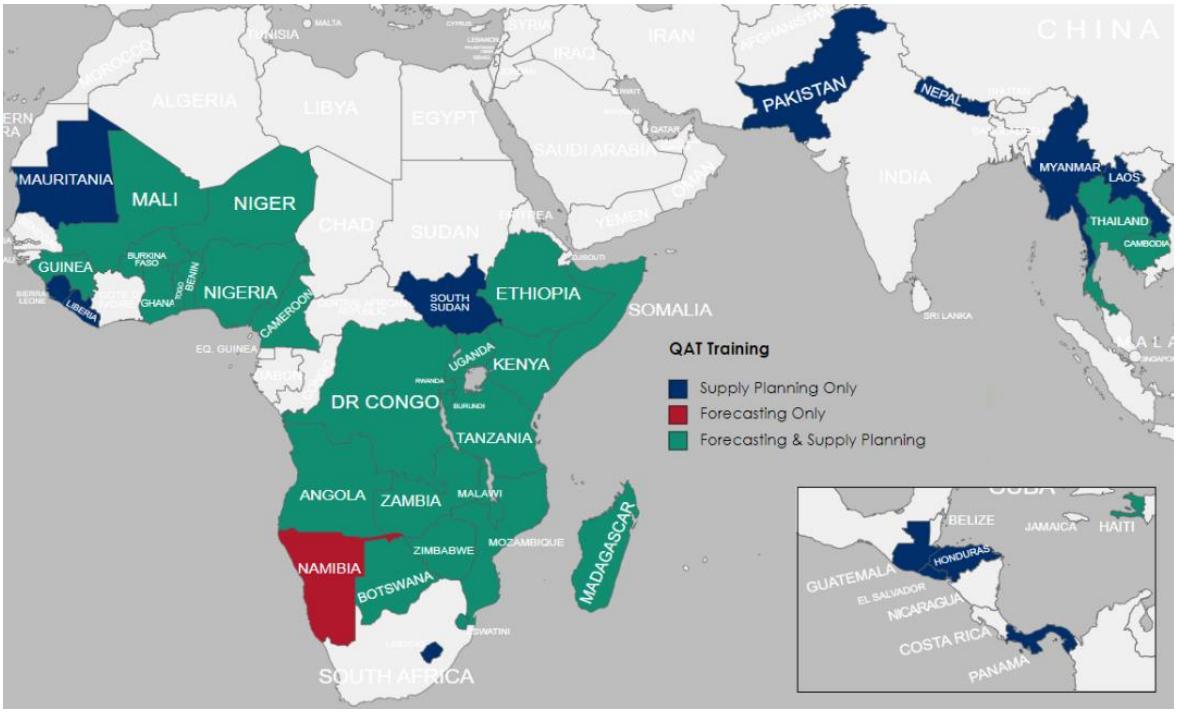
    - Provided training tools and guidelines to support the deployment of facilitators from Cameroon and DRC to facilitate training on QAT's forecasting and supply planning module in **Burkina Faso**.

    - In **Mali**, provided technical input on the quantification of essential medicines for each of the country's 28 districts.

Exhibit 15: Countries Trained on QAT Forecasting and Supply Planning (Updated in January 2024)

[56] Logged on at least once since Q1 FY 2023

[57] QAT is a cloud-based software for in-country stakeholders to optimize commodity procurement and delivery schedules, monitor product stock status, and share data with external platforms and stakeholders. With an enhanced user interface, greater analytical capabilities, and automated data exchange, this tool enables program managers to easily build multiple forecasts for comparison and selection, optimize commodity procurement and delivery schedules, monitor product stock status, and share data with external platforms and key stakeholders.



QAT Transition Planning

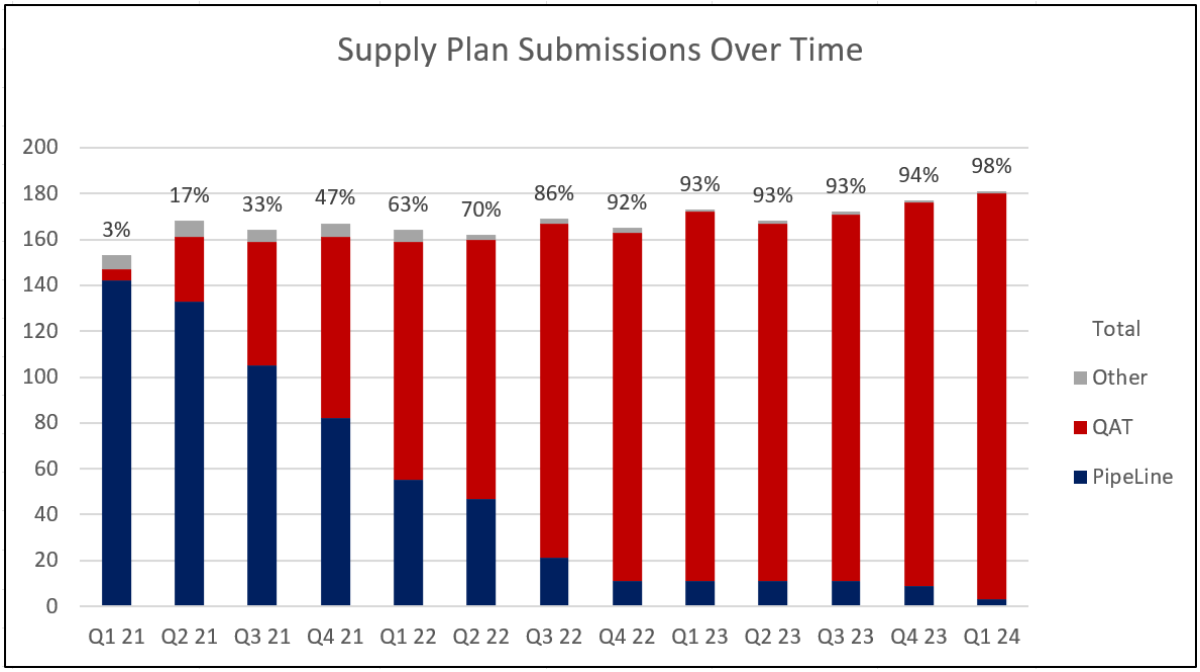
In Q1, GHSC-PSM continued discussions with USAID on the potential transition of QAT's source code and main application to another implementing partner under the purview of Digital Square, a marketplace for open source tools. This initiative is critical to ensuring the long-term sustainability of QAT and its smooth transition to NextGen. To this end, GHSC-PSM:

- Selected an Open Source License Agreement (in consultation with USAID and Digital Square) to govern the source code for QAT.
- Updated the End-User License Agreement that governs use of the QAT application.
- Completed a first draft of the terms of reference for the proposed product/governance committee for QAT.
- Conducted two meetings with USAID and Digital Square to provide guidance and updates on progress of the activities above.

QAT use for supply planning

GHSC-PSM supports countries' use of QAT for supply planning. In Q1, the project reviewed 181 supply plans to verify that they complied with data quality, supply planning, and procurement scheduling standards. This included 158 USAID high-priority supply plans from 31 countries.

Exhibit 16. QAT Supply Plan Submissions Over Time



MANAGEMENT INFORMATION SYSTEMS

GHSC-PSM improves data accuracy and quality for management information system (MIS) implementation, including GS1-compliant standardized product data to build master data sets—an important step toward end-to-end data visibility. The project works with countries to evaluate the data captured in information systems (e.g., eLMISs and warehouse management systems) for standardization and to establish methods and plans for managing master data sets across information systems.

In Q1, the project hosted one MIS technical working group session for countries to present their achievements with MIS implementation and operations, and their plans for Q2 through Q4. For example, Malawi presented its latest version of the MIS for supply chain information and data operation flow, as well as progress made in implementing the digital supply chain strategy and architecture project. The project team continued to advocate for countries to improve data quality and meet the objectives of USAID's Digital Strategy Initiative.

Promoting the USAID Digital Strategy Initiative for Public Health

In Q1, GHSC-PSM continued to update the supply chain information data mapping process flow and MIS landscape diagrams for all countries the project works in with feedback from USAID. An information and data mapping process flow document summarizes health commodity information, including funding sources and associated programs, FASP and procurement processes of each donor, and distribution flow in the country. An MIS landscape document depicts the information systems implemented and the interoperability structure in the country. The project shared updates to these documents with USAID in Q1 for review.

GHSC-PSM continued to emphasize the importance of establishing a digital supply chain strategy and architecture in all countries where the project works. In Q1, the project hosted a workshop to present

findings and recommendations of the Supply Chain Information System Maturity Model, or SCISMM. assessment to the MOH in Namibia. GHSC-PSM supported the MOH in Haiti to enhance the structure, design, and implementation of the eLMIS system in preparation for its rollout later in FY 2024.

Strengthening MIS-related acquisition in compliance with the Federal Acquisition Regulation (FAR)

GHSC-PSM supports MIS-related acquisitions across countries, including developing RFPs, evaluating proposals, reviewing and negotiating contract agreements, and monitoring vendor performance throughout the project life cycle. In Q1, the project and the contract management unit of the CMS in Botswana defined functional requirements, developed an RFP, evaluated technical and cost proposals, and selected a vendor for a supplier performance management system. GHSC-PSM also provided similar support to the Rwandan MOH for eLMIS and warehouse management system implementation, and to Angola and Malawi for eLMIS enhancement.

LABORATORY NETWORKS

GHSC-PSM promotes efficient and well-planned laboratory networks and supports quality service delivery by encouraging the visibility and use of project-generated supply chain data for decision making, improvements to network performance, and forecasting and supply planning for laboratory commodities. In Q1, the project leveraged routine meetings held individually with country laboratory teams to expand in-country capacity to use data to improve laboratory network performance and encourage country adoption of QAT for laboratory forecasting.

Supporting diagnostic network optimization (DNO)

Throughout the past periods of performance, GHSC-PSM has led DNO activities to improve diagnostic networks through a stakeholder-driven process. The project worked with stakeholders to develop optimization scenarios that aligned with specific country objectives, which were then modeled using DNO. The scenarios improved visibility into network performance and created opportunities to optimize laboratory equipment placement and multi-disease integrated testing to increase coverage of testing and reduce costs. After an intensive data collection and collation process, the project used two tools: 1) OptiDx™ and 2) supplemental interactive maps developed using the Python Library Folium™. The project uses interactive maps to validate data and inform scenarios by visualizing networks, including locations of health facilities, laboratories, and hubs, referral linkages, distances between facilities, testing volumes, instrument capacity, utilization, and testing demand by administrative area. Excel-based model outputs and interactive maps helped stakeholders review the scenarios and develop an operational plan that considered how the proposed changes to the lab network affect budget, operations, human resources, and logistics, providing an implementation roadmap to realize the future state of the network. In Q1, following USAID guidance, GHSC-PSM completed work on OptiDx and project management support for DNO activities.

In **Togo,** GHSC-PSM provided technical assistance to the USAID Global Health Supply Chain Program-Technical Assistance project (GHSC-TA) Francophone Task Order (FTO) in facilitating a final DNO workshop to share results, agree on recommendations to improve the network, and develop an

operational implementation plan based on the accepted recommendations. Once the plan is final, various stakeholders will implement it to improve the laboratory network.

Ghana, Burundi, and **Togo** will implement their operational plans throughout FY 2024 in alignment with the recommendations from their recently completed DNO workshops.

Supporting quantification for laboratory commodities

In FY 2024, the project will continue to look for opportunities to improve the use of QAT for forecasting laboratory commodities and streamline and standardize national quantification exercises. In Q1, GHSC-PSM:

- Provided in-person technical assistance to the **Zambia** National Quantification Committee by facilitating a QAT for lab forecasting training session and participating in the national laboratory quantification workshop.
- Developed a guideline for **Cameroon** to use the QAT forecasting module in adjusting a mid-year quantification for a new instrument, provided training materials on using QAT for lab in preparation for a quantification workshop in **Mozambique**, and provided remote support to **Uganda** during its annual laboratory forecasting exercise.

Supporting equipment planning and placement and instrument transitions

GHSC-PSM continues to steward the equipment planning and placement questionnaire (EPPQ) by ensuring that all supported countries adhere to its requirements. USAID requires that countries answer 12 EPPQ questions to ensure countries appropriately plan and are prepared before procuring certain laboratory equipment and instrumentation that come with a warranty, are connected to electricity, and/or require additional maintenance. The project works with country teams and the three global diagnostics manufacturers under the global SLA to complete the EPPQ before purchasing or placing new equipment. An EPPQ tracker captures the placement of molecular equipment and provides visibility and better coordination across the project for instrument placements. In Q1, the project coordinated with stakeholders in **Cameroon, Eswatini, Ethiopia, Mozambique, Tanzania, Zambia,** and **Zimbabwe** to complete the EPPQ and supplemental capacity utilization analysis. In addition, GHSC-PSM developed a module on Considerations for Instrument Placement as part of the SLA Implementation Toolkit.

WAREHOUSING AND DISTRIBUTION

GHSC-PSM improves warehousing and distribution systems in over 25 countries. The project aims to move countries' warehousing from a mid-/long-term storage facility strategy to a distribution center model with a focus on reducing order process cycle times. This requires infrastructure and process changes to ensure warehouses can keep up with the increased speed needed for frequent inventory turns. Activities include improving data-driven decision making across the supply chain, optimizing distribution networks, and increasing efficiencies in warehousing and distribution operations.

In Q1, the project introduced a policy to promote warehouse inventory variance and cycle count methodology for GHSC-PSM stakeholders by moving from periodic to perpetual inventory control. The

policy applies to all activities where the project directly oversees warehouse operations, has contractual agreements with a 3PL provider for warehousing services, or supports warehouse operations with other implementing partners or their MOH counterparts (e.g., through a CMS or a parastatal).

Activity-based costing/activity-based management (ABC/ABM)

GHSC-PSM recognizes that warehousing and distribution are part of a larger strategy requiring integrated procurement, transportation, storage, picking and packing, delivery, and other activities to increase velocity, improve orchestration and performance, and lower the risk of expiry and warehouse operational costs. The project supports countries in implementing private-sector approaches, such as ABC/ABM, to capture cost information, assess supply chain costs against private-sector costs, and enable increased efficiency in managing operational costs.

In Q1, GHSC-PSM provided remote technical assistance to Eswatini, Ghana, and Uganda—all of which are in various stages of ABC/ABM implementation:

- In **Ghana**, conducted weekly meetings with the Ashanti and Eastern regional medical store (RMS) finance teams and their warehouse and supply managers to discuss their daily planner, monthly labor report, and customization and use of profit and loss (P&L) statements. The project continued its quarterly reviews of P&L statements with both regional RMSs while mentoring each RMS's finance and operations team to conduct these reviews independently. The project's analysis of P&L statements has provided visibility into costs related to managing supply chain operations while also empowering RMS staff ownership of their supply chain operations. GHSC-PSM's goal is to have both regions maintaining and operating their own P&Ls by the end of Q3.

- In **Eswatini,** GHSC-PSM introduced warehousing and distribution (W&D) best practices in distribution planning, receiving, storage, picking, inventory control, expiry management, and the 5S[58] methodology to the CMS team. These and other performance benchmarks will allow the CMS to adopt a fee-for-service model and provide operators with guidance for follow-on ABC/ABM, thus providing a foundation for the Eswatini CMS to transition to a semi-autonomous and sustainable parastatal. This exercise will continue through Q3.

WORKFORCE DEVELOPMENT

GHSC-PSM strengthens public health supply chains by building sustainable workforces through professionalization and systematic assessments and approaches to workforce development.

Strengthening capacity for supply chain management

GHSC-PSM offers USAID personnel courses to introduce them to supply chain management. In Q1, the project began updating the course content and delivery approach by incorporating lessons learned from

[58] 5S is a workplace organization strategy that resets the existing operation by removing non value added product, items, or equipment, layout of all areas for continuity, and maintaining the streamlined processes and conditions. When followed, the 5S methodology creates a more organized and productive workspace.

previous years in preparation for the Introduction to Supply Chain Management and the Emerging Trends in Supply Chain Management courses, both of which are scheduled for Q3.

Country-specific workforce development activities:

The FP/RH task order supported various workforce development initiatives in **Rwanda**:

- Held an event for the Ministry of Health, Regional Center of Excellence (RCE), and Rwanda Medical Supply Ltd (RMS Ltd) to hand over the Supply Chain Management Professionalization Framework. This event was the culmination of GHSC-PSM's support for the Government of Rwanda's efforts to prioritize human resource development through institutional and organizational capacity building initiatives. This work began in 2019 with a labor market analysis, which revealed an imbalance between demand and supply in the supply chain management workforce. The project collaborated with the MOH, RCE, and RMS Ltd to develop the SCM professionalization framework to create a pool of qualified supply chain professionals in Rwanda. The framework establishes educational standards for the national SCM curriculum and provides the requirements for a fit-for-the-market SCM workforce. As this phase ends, the project will begin supporting the government to develop a capacity and professional development plan and an implementation and monitoring capacity development plan to complement the framework.

- The project also published four case study articles with the People that Deliver (PtD), Rwanda Ministry of Health, and IntraHealth on USAID's investments to strengthen supply chain management human resources in Rwanda. See section B3 for details. END-USE VERIFICATION SURVEY

GHSC-PSM assesses the availability of malaria, FP/RH, and MNCH commodities at health facilities using the End-Use Verification (EUV) survey. During EUV survey implementation, GHSC-PSM country teams collect and analyze data on commodity availability and attributes that contribute to commodity availability, including storage conditions, staff capacity, and stock management. The project presents findings to Missions and MOHs and helps facilitate conversations and activities to improve commodity availability. EUV data collectors also provide on-site capacity building for health facility staff during EUV data collection.

In FY 2023, at the request of USAID and PMI-Washington, GHSC-PSM developed the Community Health Worker (CHW) module of the EUV survey. In Q1 FY 2024, the project rolled the module out to EUV countries. By assessing health commodity availability at the community/CHW level and identifying the processes used by CHWs to manage these commodities, the EUV survey can now include recommendations to inform improvements, identify gaps, and strengthen the supply chain links between health facilities and communities.

In Q1, GHSC-PSM implemented the EUV survey in **Burkina Faso**, **Mali**, and **Niger** project offices in collaboration with MOH and NMCP staff. GHSC-PSM also made significant progress towards finalizing the CHW module report template and collected CHW module data in **Burkina Faso** and **Mali**.

NATIONAL SUPPLY CHAIN ASSESSMENT

The National Supply Chain Assessment (NSCA) is a comprehensive capability and performance review at all levels of a health supply chain. Assessment results help supply chain stakeholders develop their strategic, operational, and investment plans and monitor activities to their desired outcomes.

In Q1, GHSC-PSM supported implementation of the NSCA in Burundi, Lesotho, and Zambia:

- In **Burundi**, disseminated the results of the NSCA to the Government of Burundi, donor representatives, and implementing partners. The dissemination had participants review the assessment's key findings and lay initial details for planning supply chain reforms.
- In **Lesotho,** supported data analysis and report writing for the NSCA final report. USAID staff accompanied GHSC-PSM to conduct this exercise. The project will finalize a draft report in Q2 ahead of an NSCA dissemination event.
- In **Zambia**, finalized the technical details, scope, and sampling for the NSCA. Fieldwork is scheduled to commence in Lusaka in Q2.

LEARNING AGENDA: SUPPLY CHAIN TECHNICAL INDEPENDENCE INDICATOR

GHSC-PSM continues to work on the technical independence indicator learning activity. In Q1, following discussions with USAID, the project began drafting a brief on the strengths and weaknesses of the technical independence indicator and made recommendations for adaptation, drawing from all the different examinations of the indicator to date, including the Country Director's Forum working sessions, the supply chain indicator review project, and previous year technical independence learning activity. GHSC-PSM expects to share the technical brief with USAID by the end of Q2.

C2a. PROJECT PERFORMANCE

GHSC-PSM collects and analyzes data on several national supply chain system health indicators to understand the environments in which the project operates and to calibrate our work. These indicators establish priorities for the project's health systems strengthening support and, over time, will enable the project to assess the outcomes of technical assistance. Dashboards with these country-specific indicators are available for GHSC-PSM country offices to explore with in-country stakeholders.

CAPACITY STRENGTHENING

The number of people trained is an indicator on which the project focuses its capacity-building resources and identifies areas for improvement related to supply chain outcomes. GHSC-PSM trained 1,971 individuals in Q1 of FY 2024 (734 women and 1,237 men). In Q1, many trainings were cross-cutting and addressed topics relevant to multiple health areas. By funding source, 24 percent were trained with HIV/AIDS funding; 22 percent with malaria funding; 29 percent with FP/RH funding; and 25 percent with MCH funding.

ENVIRONMENTAL COMPLIANCE

In Q1, in accordance with USAID's Environmental Procedures (22 CFR 216) and GHSC-PSM's closeout and transition implementation phases, the project continued to support countries to operationalize and implement USAID-approved GHSC-PSM compliance instruments — the Initial Environmental Examinations /IEEs, Environmental Mitigation and Monitoring Plan/EMMP, Waste Management Plan/WMP, and the Pesticide Evaluation Report and Safer Use Action Plan/PERSUAP. This support included providing multi-faceted one-on-one technical advisory services to global staff, such as reviewing and providing guidance on technical documents on country activities operationalization and monitoring and evaluation, technical guidance and advisory on healthcare waste management, training and capacity building of project management units and local partners, and direct technical assistance to project staff.

GHSC-PSM began developing the FY 2023 Environmental Mitigation and Monitoring Report and expects to share with USAID by the end of Q2. The project also worked with country program and risk management teams to close out AssureX incidents related to waste disposal and provided guidance to countries on the disposal of expired commodities and unusable items from warehouses.

C3. GLOBAL COLLABORATION

In Q1, **delivered more than 27 presentations** at **seven international conferences,** and **submitted 11 abstracts** to the **People that Deliver 2024 Global Indaba, eight** of which were **accepted**.

Presented on four panels in Q1, at the 2023 **RHSC General Membership Meeting** and the 2023 **Global Health Supply Chain Summit**.

The scale, scope, and complexity of managing a global supply chain require collaboration with international and local partners to ensure the availability of medicines and health commodities. By integrating work across health sectors and sharing information, resources, activities, and capabilities, the project can achieve what it could never accomplish alone. GHSC-PSM's global collaboration efforts focus on coordinating with global donors and stakeholders to develop innovative means for responding to supply chain interruptions.

STRATEGIC ENGAGEMENT

As described throughout this report, GHSC-PSM engages with global players to promote the availability of medicines and commodities. The project does this by providing supply chain expertise and working with partners—locally and globally—to reach more communities, allocate scarce supplies, promote harmonization of standards and practices, and manage commodity stock information as a global good. GHSC-PSM participates in several groups:

- Hosts monthly **Proactive Stock Risk Management (ProStock)** meetings with USAID as a forum for building on the project's HIV/AIDS data collection and analysis, discussing gaps in HIV commodity access, and implementing action plans to address them. (See section B1.)
- Participates in the **VAN Steering Committee** (GHSC-PSM is a non-voting member) and provided input on supply chain data across the FP community. Also participated in regular VAN working groups, including the Data Management, Technical Management, Data Sharing, and Super User and Analytics task forces. (For more details, see section B3.)
- Through the **Consensus Planning Group**, coordinates supplier allocations of available supply among multiple procurement agencies and prioritizes needs, ensuring fair and reliable access to FP products. (For more details, see section B3.)
- Participates in the **Newborn TWG** alongside USAID, UNICEF, and WHO experts. This group oversees the ENAP. (See section B4.)

- Participates in and co-chairs the **Maternal Health Supplies Caucus** (a subgroup of the **Reproductive Health Supply Coalition**, or RHSC) and the USAID and BMGF-funded **Child Health Task Force** and shares and creates resources with and for these groups. (See section B4.)

- Participates in the Verification and Traceability Initiative **(VTI)**, a multi-stakeholder partnership composed of UNICEF, Gavi, BMGF, the Global Fund, USAID, national regulatory authorities in Nigeria and Rwanda, Vital Wave, and the World Bank. (See section C2.)

- Participates in the Malaria Pharmaceuticals, mRDT, and Vector Control Access Task Forces; the LLIN Donor Collaboration call; and the KSM/API working group. Also chairs the LQAG. (See section B2.)

- As part of the strategy to drive procurement and manufacturing regionally from Africa, collaborates with other global procurers and QA teams to gain a complete understanding of the potential impact of a quality issue on the malaria products the project seeks to procure. In Q1, the project successfully allocated procurement to an additional African manufacturer with this QA stipulation in place.

KNOWLEDGE SHARING

To ensure that MOHs, supply chain managers, donors, and other stakeholders can repurpose program activities and develop locally led solutions, GHSC-PSM documents and shares project activities, technical research, and success stories. Details can be found in sections throughout the report, and through our Conference Hub, but below are highlights from Q1 FY 2024:

- Prepared and submitted **11 abstracts** to the **People that Deliver 2024 Global Indaba, eight of which were accepted**.

- **Delivered three presentations** and participated in **two panels** at the 2023 **RHSC General Membership Meeting**.

- Presented **six posters** at the **American Society of Tropical Medicine and Hygiene Annual Meeting 2023**.

- Delivered six oral presentations and participated in and led two panels at the 2023 **Global Health Supply Chain Summit.** The project also participated in three panels at the 2023 **Health and Humanitarian Logistics Conference**, focusing on last-mile solutions.

- Presented three posters and co-hosted a satellite session at the 2023 **African Society for Laboratory Medicine (ASLM)** conference. USAID and GHSC-PSM co-hosted a panel discussion to promote the Wave-2 all-inclusive SLAs. The posters were on the National Integrated Specimen Referral Network (NiSRN) in Nigeria, integrating multi-disease testing on GeneXpert Devices in Ghana, and on findings from a national DNO analysis in Ghana.

- Presented one oral presentation and two posters at the 2023 **International Conference on AIDS and STIs in Africa (ICASA)**. The oral presentation focused on strengthening inventory management and stock visibility in Kenya. The poster exhibition featured a poster on MMD scale-

up in Nigeria, one on the project's support to the Malawi MOH, and the impact of on-the-job training and supportive supervision.

- Participated in the **12th Annual Ouagadougou Partnership Meeting** in Côte d'Ivoire, which focuses on accelerating progress in FP services in nine West African countries. (For more details, see section B3.)

- Collaborated with **People that Deliver**, Rwanda Ministry of Health, and IntraHealth to publish a study of Rwanda's health supply chain management labor markets in the BioMed Central (BMC) journal. (See section B3.)

- Presented the recently updated MNCH Procurement Manual at **MTaPS' global webinar** on subnational procurement for MNCH commodities in Q1. (See section B4.)

- Participated in the **WHO technical convening** on prioritizing MNCH commodities in Geneva, Switzerland. (See section B4.)

- Attended the **38th GS1 Global Healthcare Conference** in Sao Paulo, Brazil. The project presented on "accelerating traceability and collaborating for success in a complex world." Conference Key takeaways included the increasing importance of the GS1 Digital Link standard for accessing electronic patient information leaflets and electronic instructions for use. Additionally, manufacturers are continuing to advocate for harmonized regulations for medical devices, which are lagging behind when compared to pharmaceuticals and have an ever-growing number of harmonized coding and serialization regulations; while medical device requirements remain largely unharmonized. GHSC-PSM supported national officials from Ghana, Uganda, and Zambia to attend the conference as well.

- Provided technical support to USAID on the **Verification and Traceability Initiative (VTI)**, a partnership among UNICEF, Gavi, BMGF, the Global Fund, USAID, and national regulatory authorities to verify the authenticity of health products and track them through the supply chain. Technical assistance provided defining cases for VTI, defining requirements for Release 3.0 of the system based on those use cases, and providing inputs into the business model to sustain the initiative.

- Worked with PMI to reconvene the **TraceNet technical working group** to review and revise the 2019 TraceNet Guidelines for the identification, package barcoding, and master data sharing of LLINs procured by the global health community. In Q1, GHSC-PSM hosted the TraceNet working group kickoff meeting, where stakeholders discussed their experience implementing LLIN supply chain standards. (See section B2.)

COUNTRY COLLABORATION

- In **Burma**, led a stock monitoring meeting with the National AIDS Program, WHO, and UNOPS to support stock monitoring activities and address pending supply challenges (See section B1.)

- In **Burundi**, collaborated with the National AIDS Control Program, TB Program, and UNDP to analyze VL and EID lab data and transfer ownership of the DNO to the MOH. (See section B1.)

- In **Ethiopia**, facilitated advocacy workshops with MOH and regional stakeholders to leverage domestic resources for contraceptive procurements. This effort is part of the broader strategy to sustain reproductive health commodity security in collaboration with UNFPA and other partners. (See section B3.)

- In **Guinea**, worked with stakeholders to develop an operational plan for procuring and managing eight incinerators to be donated to Guinea by the Global Fund as part of its COVID-19 response. The project will implement the plan. (See Annex A.)

- In **Haiti**, collaborated with the MOH to facilitate a data validation workshop, enhancing FP supply chain data quality and supporting informed decision-making by stakeholders, including the MOH, USAID, and UNFPA. (See section B3.)

- In **Malawi**, held a remote training on QAT's supply planning module for UNICEF staff to support the UNICEF/BHA pilot using QAT for nutrition programs. (See section C2.)

- In **Malawi**, collaborated with CHAI, CDC, and other partners to support the MOH implement DNO to create an efficient specimen referral network. (See section B1.)

- In **Malawi**, worked with GFVAN and UNFPA to address FP product shortages, ensuring expedited shipments and advanced FY 2024 order placements. (See section B3.)

- In **Mauritania**, trained 22 participants from the MOH Nutrition Division, the CMS, and UNICEF on QAT's supply planning module.

- In **Mozambique**, conducted an in-person QAT training for more than 30 prospective users, including stakeholders from Center for Medicine and Medical Articles, National Directorate of Medical Services, the MOH, the Global Fund, and UNICEF. (See section C2.)

- In **Niger**, in collaboration with CRS, supported development of a contingency storage plan following the July coup to proactively manage the expected increase in container arrivals following the reopening of the land borders (still closed at the end of the quarter). (See section B2.)

- In **Rwanda**, used the People that Deliver process mapping tool to gather and analyze data from health facilities across the country. The project then developed a document titled, "Supply Chain Management Professionalization in Rwanda," which was reviewed by People that Deliver, the Rwanda country office, and USAID. (See section C3.)

- In **South Sudan**, facilitated a QAT workshop to develop a three-year national forecast for family planning/reproductive health commodities and maternal health medicines. Participants included staff from the MOH, UNFPA, and the MOMENTUM Integrated Health Resilience project. (See section C3.)

- In **Zambia**, continued to work with NMEC, E4H, and PAMO Plus to prepare for the 2023-2024 LLIN mass distribution campaigns. (See section B2.)

COLLABORATION WITH OTHER USAID GHSC PROJECTS

GHSC-PSM is a member of the GHSC program family and interacts regularly with the other GHSC projects.

In **Togo,** GHSC-PSM provided technical assistance to the GHSC-TA FTO in facilitating a final DNO workshop. See section C2 for details.

In **Tanzania**, trained 35 participants from GHSC-TA Tanzania, GHSC-PSM Tanzania, and several others on the QAT forecasting and supply planning module. See section C2 for details.

GHSC-PSM collaborates with **GHSC-QA** to share information, identify mutual challenges and solutions, and ensure QA requirements are incorporated into GHSC-PSM systems. Furthermore, GHSC-PSM collaborates with GHSC-QA to streamline and optimize QA and QC business processes and procedures to rapidly address any incidents and product failures as they occur, ensuring quality products reach the end consumer.

GHSC-PSM also provides FASP as well as in-country logistics support to the **GHSC-RTK project**, which undertakes HIV/AIDS RTK procurement and international freight. The project shares data monthly with GHSC-RTK to guide HIV-RTK procurement planning and data triangulation and reviews HIV testing targets against HIV-RTK stock in countries with PEPFAR-supported HIV testing programs. (See section B1.)

The role of the non-field office program management unit (NFO PMU) is to collaborate with in-country stakeholders to support the successful procurement and delivery of health commodities. In countries that have USAID programming for supply chain activities, the NFO team works with those programs, as well as the USAID Mission and counterpart health personnel. For the specific FTO countries, this collaboration happens almost daily between the NFO PMU, FTO country offices, and FTO headquarters staff. Collaboration is also facilitated by having the Managing Director of the NFO PMU serve in the role of Managing Director for the GHSC-TA IDIQ and FTO.

Highlights from Q1 include:

In late Q4 FY 2023, the GHSC-FTO team informed GHSC-PSM of an impending stockout of DTG 10 mg in DRC. It was essential that a shipment of DTG 10 mg arrive to DRC before the end of Q1 FY 2024 as the warehouse closed on December 20, 2023, for the holidays. The GHSC-PSM procurement team worked quickly to identify available stock and to secure 20,000 packs. Once GHSC-PSM obtained all necessary approvals, the team began to process the order for shipment. GHSC-PSM and GHSC-FTO colleagues collaborated to obtain customs clearance for the shipment quickly. As a result, GHSC-PSM completed the delivery of the first 20,000 packs of DTG 10 mg on December 7, 2023, and was critical in preventing discontinuation of pediatric treatment. Also in DRC, GHSC-PSM supported the USAID Mission in DRC in lifting two holds placed on their two respective U.S. Embassy accounts with an international maritime shipper DRC affiliate. To address future issues, the U.S. Embassy Kinshasa, the USAID Mission in DRC, and GHSC-PSM requested the shipper invoice logistics forms directly, thus eliminating the issue of unpaid invoices being booked, correctly or incorrectly, to the U.S. Embassy's accounts.

One of the many roles NFO PMU fills is to provide time-critical support to countries wrestling with unique challenges. Venezuelan refugees in Colombia are supported by a network of implementing partners that

are experiencing difficulties with obtaining DTG and TE. In a short time, GHSC-PSM organized an STTA with a technical expert to provide a forecast and supply plan for this marginalized population with the full support of the IPs. Based on this quantification, GHSC-PSM worked closely with its international suppliers to arrange for local delivery and avoid lengthy delays associated with the duty-free import process.

GHSC-PSM received OAA approval to commission six prefabricated shipping container units for the storage and dispensing of pharmaceutical supplies at four sites across Jamaica. The prefabricated storage units will increase storage capacity at the subnational level for health commodities. Also in Jamaica, at the request of USAID, GHSC-PSM sourced and will procure and provide dengue support commodities to the MOH of Jamaica, these tools will be used to address an ongoing outbreak there.

GHSC-PSM traveled to Tanzania to meet with USAID Tanzania team members, VMMC technical advisors, and all implementing partners to review activities from the FY 2023 meeting and to orient implementing partners on required information for quarterly stock reports, to assess current stock, and to conduct forecasting and inventory planning exercise for VMMC. The STTA highlighted a supply chain risk for FY 2025, as the forecast shared by implementing partners indicated that the FY 2024 demand could out-strip available suppliers and result in a supply gap for 192,926 clients.

GHSC-PSM Tanzania trained USAID Tanzania, GHSC-TA Tanzania, MSD, NASHCoP, NMCP, Directorate of Reproductive, Maternal, and Child Health (DRMCH), USAID/Washington, CDC Tanzania, and others on QAT. The workshop covered all the functionalities of the forecasting and supply planning modules. In his closing remarks, the chief pharmacist informed participants that he is behind the transition to QAT, stating that "this is the tool we are going with" and pointed to the numerous advantages provided by QAT compared to legacy programs.

OTHER GLOBAL COLLABORATION

- Provided the **USAID MOSAIC** program with technical assistance in Q1. (See section B1.)
- Delivered a USAID donation of 6,912 dapivirine vaginal rings to Kenya and Uganda in support of the **NIH-funded SEARCH** program. (See section B1.)
- Presented findings from the CSI Indicators Survey to a **USAID PRH** audience and co-led a panel with **USAID CSL**, focusing on the impact of government spending and LMIS on contraceptive prevalence. (See section B3.)
- Held discussions with the **Global Fund** to further collaborate on the VMS initiative. This initiative, which improves collaboration among the supplier, the buyer, and distributors, will help higher-volume TLD countries improve stock rotation, minimize inventory and the associated holding costs at the central level, and pave the way for more routinized ordering patterns. (For more details, see section B1.)

ANNEX A. COVID-19 RESPONSE

In Q1, the project **delivered 6.8 million COVID-19 commodities** to Liberia approved for American Rescue Plan Act (ARPA) funding, including examination gloves and surgical face masks.

In Q1, the project **delivered 12,139 kg of bulk liquid oxygen** to two hospitals in Namibia.

GLOBAL PROCUREMENT AND LOGISTICS

Procurements under COVID-19 ARPA

Under ARPA funding, GHSC-PSM procures cold chain supplies and equipment, bulk liquid oxygen, diagnostic tests, general patient care commodities, laboratory consumables, essential medicines, and personal protective equipment, along with a limited range of critical COVID-19 commodities for countries requiring emergency supplies, establishing a virtual stockpile of COVID-19 commodities and providing related technical assistance.

In Q1, GHSC-PSM delivered critical medical supplies and equipment to:

- **Liberia:** 6,550,000 examination gloves and 250,000 surgical face masks.

Procurement and installation of oxygen-related commodities

Supplemental oxygen is an essential, lifesaving treatment for people infected with COVID-19. As part of its global response to the pandemic, USAID tasked the project with procuring and delivering oxygen commodities, including pressure swing adsorption plants, vacuum swing adsorption plants, oxygen concentrators and cylinders, and oxygen disaster manifolds, as well as consumable and durable items. Activities in Q1 included:

- In **Botswana**, continued establishing a project charter with the Mission and MOH for three hospitals in Francistown and Masunga. The charter includes installing vacuum-insulated evaporators with tank telemetry systems for level and pressure monitoring and cylinder manifold systems to meet oxygen needs during each hospital's normal and peak consumption periods. In Q1, GHSC-PSM negotiated contracts with the awarded GHSC-QA–qualified supplier. To include mandatory federal acquisition regulations, the project paused negotiations with the supplier. Pending supplier feedback on the acceptability of regulations, GHSC-PSM will also explore alternative mechanisms to ensure oxygen supply to three hospital sites, such as by procuring pressure swing adsorption plants. Equipment installation will occur after the Ministry of Health and Wellness completes the infrastructure readiness work.

- In **Namibia**, delivered 12,139 kilograms of bulk liquid oxygen to two hospitals.

Procurement of respiratory equipment and related commodities

In Q1 FY 2024, USAID reprogrammed $11.6 million of funds previously allocated to procure ventilators and associated consumables and durables to now support oxygen and neonatal activities in 19 countries. The project's country offices and their respective recipient country counterparts will identify technical assistance and procurement needs and develop work plans for USAID approval. GHSC-PSM developed a budget calculator for recipient countries to quantify commodities and help country offices and MOHs select products from a list of available neonatal oxygen commodities and indicate their quantity needs while remaining within the ceiling of the reprogrammed ventilator country budgets.

GHSC-PSM, in collaboration with USAID's Office of Maternal and Child Health and Nutrition, defined product specifications and quality standards for a package of neonatal health commodities for recipient country procurement using their reprogrammed ventilator funding. The project expects the standard package of neonatal health commodities will expand countries' respiratory ecosystems and improve the quality of care for newborns and children.

COVID-19 TEST-TO-TREAT PROGRAM

In FY 2022, GHSC-PSM received funding to support the COVID-19 Test-to-Treat Program for Bangladesh, Botswana, Côte d'Ivoire, El Salvador, Ghana, Lesotho, Malawi, Mozambique, Rwanda, and Senegal. In Q1, GHSC-PSM:

- Issued three orders of generic nirmatrelvir + ritonavir that were pre-positioned at the Dubai RDC to **Malawi, Lesotho**, and **Ghana**. These orders amounted to 3,584 treatment courses and will be delivered to the recipient countries in Q2. GHSC-PSM also reallocated the 512 treatment courses of generic nirmatrelvir + ritonavir originally destined for **Mozambique** to **Ghana** to be delivered in Q2. The project will deliver the remaining 2,176 treatment courses at the Dubai RDC in FY 2024 after receipt of country product registration confirmation and import duty waivers.

COVID-19 IN-COUNTRY TECHNICAL ASSISTANCE

Below are examples of COVID-19 technical assistance activities the project conducted in Q1.

In **Rwanda**, managed COVID-19 vaccine inventory and dispatch. The project also conducts targeted data quality supervision at health facilities. GHSC-PSM began eLMIS improvements for Rwanda Medical Supply Ltd (RMS Ltd), including managing invoices and purchase orders, operating the warehouse management system, and reporting on procurement and warehouse operations. The upgraded eLMIS will automate business workflows at RMS. This feature ensures collaboration between RMS departments by attaching relevant documents, facilitating timely approvals with notifications at each stage.

In **Angola**, distributed 37,160 approved COVID-19 vaccine doses across 12 provinces and their municipalities using a combination of contracted 3PLs and MOH fleets. The project and the MOH also conducted waste management and reverse logistics supervision across eight provinces, 19 municipalities, and 34 health units, and trained 20 technicians to follow COVID-19 vaccination waste disposal guidance. The project conducted Adverse Event Following Immunization supervision across two provinces, six municipalities, and nine health units to support timely reporting of adverse events through the DHIS2 platform.

GHSC-PSM conducted cold chain supervision across two provinces, nine municipalities, and 10 health units. The project identified 40 non-functional pieces of cold chain equipment and updated provincial health offices cold chain inventory. GHSC-PSM trained ten cold chain technicians to reinforce vaccine conservation guidelines.

In Kenya, under TO5, Afya Ugavi, funded by USAID through the TO1 COVID-19 budget, supported the Pharmacy and Poisons Board (PPB) in implementing WHO Global Benchmarking Tool assessment recommendations that would aid PPB in attaining WHO Maturity Level III accreditation, which confirms that a stable, well-functioning, and integrated regulatory system is in place. The initiative supports local vaccine production, including COVID-19 vaccines, to expand accessibility and bolster preparedness against potential future pandemics.

Afya Ugavi also discussed a set of institutional development plans from the WHO assessment with the PPB and the National Quality Control Laboratory.

In **Haiti,** distributed 1,550 COVID-19 vaccine doses and vaccination materials, such as vaccine cards, safety boxes, syringes, cotton rolls, and other products to 26 vaccination sites in the Northern and Southern regions. In the Southern region, these distributions complemented the awareness-raising and community mobilization activities previously carried out by the MOH and other partners on the importance of COVID-19 vaccination and enabled those already vaccinated to receive their second doses and complete their vaccinations. During this quarter, GHSC-PSM also initiated discussions with the MOH to consider capacity-strengthening activities for cold chain technicians and vaccine stock managers, as well as uploading and inputting immunization logistics data.

ANNEX B. GHSC-PSM Local Subcontract Awards Fiscal Year 2023

GHSC-PSM supports USAID's mandate to "*catalyze and support local change*" through localization efforts. One illustration of the project's contribution to localization is subcontracting local entities where we work. The data presented below summarizes local GHSC-PSM warehousing and distribution and MIS subcontracts, selected according to the following inclusion criteria.

Inclusion criteria

1. **Time period**: Contracts executed in FY 2023
2. **Contracted entities**: Defined as an individual, a corporation, a nonprofit organization, or another body of persons that (1) is legally organized under the laws of; (2) has as its principal place of business or operations the country receiving assistance.
3. **Contract objectives**: The summary data presented is restricted to contracts explicitly undertaking activities to strengthen the country's warehousing and distribution and MIS systems.

Exhibit 17. Selected Subcontracts, by country, awarded by GHSC-PSM, FY 2023 and by TO[59].

Country Office / Task Order	Value of awards (USD)	Number of distinct vendors	Total number of subcontract or purchase orders
Angola			**17**
TO1	58,380	2	
TO2	207,286	2	
Burkina Faso			**6**
TO4	100,841	1	
Cameroon			**42**
TO1	281,535	2	
TO1; TO2	49,147	1	
TO2	50,836	1	
Ethiopia			**1**

[59] **Please note:** Where TOs are grouped under one row the information encompasses the cross-cutting subcontracts under those task orders in that country.

TO2	388,778	1	
Ghana			**79**
TO1; TO2; TO3; TO4	162,882	4	
TO2	227,763	5	
Haiti			**26**
TO1; TO3	429,636	4	
TO1; TO3; TO4	2,500	1	
Indonesia			**20**
TO1	3,264	1	
Malawi			**1**
TO1; TO2; TO3	1,672,524	1	
Mali			**2**
TO3	28,870	1	
Mozambique			**368**
TO1	1,499,590	3	
TO1; TO2; TO3; TO4	1,066	1	
TO2	385,595	3	
Niger			**55**
TO2	618,450	7	
Nigeria			**56**
TO1	1,519,973	5	
TO1; TO2; TO3; TO4	2,211,293	1	
TO2	2,132,550	14	
TO3	19,484	2	

Pakistan			**1**
TO1	126,076	1	
Sierra Leone			**14**
TO2	173,701	3	
Uganda			**8**
TO1; TO2; TO3	11,986,474	2	
Zambia			**29**
TO1; TO2; TO3; TO4	518,264	2	
Zimbabwe			**3**
TO1; TO2	181,937	1	
Total	**25,038,705**	57	728

Exhibit 18. Selected Subcontracts awarded by GHSC-PSM, FY 2023, summarized by TO[60].

Task Order	Number of distinct vendors	Total number of subcontract or purchase orders	Value of awards (USD)
TO1	**14**	**395**	**3,488,820**
TO1; TO2	**2**	**6**	**231,084**
TO1; TO2; TO3	**3**	**9**	**13,658,998**
TO1; TO2; TO3; TO4	**8**	**100**	**2,893,506**
TO1; TO3	**4**	**25**	**429,636**
TO1; TO3; TO4	**1**	**1**	**2,500**
TO2	**38**	**182**	**4,184,962**
TO3	**3**	**4**	**48,354**
TO4	**1**	**6**	**100,841**
Total	**57**	**728**	**25,038,705**

[60] **Please note:** Where TOs are grouped under one row the information encompasses the cross-cutting subcontracts under those task orders.

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Current Reporting Period

2024-Q1

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

Delivery Impact to Date

Number of ACT treatments delivered

547,467,087

Number of Couple Years Protection delivered

108,955,515

Person-years of ARV treatment delivered

23,388,635

Global Supply Chain M&E Indicator Performance

FY2023 Quarter 3, April - June 2023

Delivery (OTIF, OTD and Backlog)	Cycle Time	Quality Assurance (TO2 only)	Procurement	Registration
Supply Plan Error	Forecast Error	Supply Plan Submissions	Warehousing	Vendor Performance

HIV Complete Quarterly Results (TO1)

Malaria Complete Quarterly Results (TO2)

FP/RH Complete Quarterly Results (TO3)

MNCH & Zika Complete Quarterly Results (TO4)

USAID FROM THE AMERICAN PEOPLE

PEPFAR U.S. President's Emergency Plan for AIDS Relief

PMI U.S. PRESIDENT'S MALARIA INITIATIVE LED BY USAID FROM THE AMERICAN PEOPLE CDC

Delivery Performance

Current Reporting Period

2024-Q1

TO	Analysis
Crosscutting	Overall delivery performance for the project has remained strong this quarter. OTD had a minor increase from 88 percent in the previous quarter to 89 percent this quarter. Conversely, OTIF had a minor decrease from 89 percent in the previous quarter to 87 percent this quarter. Overall delivery volume increased slightly from the previous quarter with 1,210 lines delivered this quarter compared to 1,171 lines delivered in the previous quarter. The Increase was entirely attributable HIV/AIDS products as the number of lines delivered as compared to last quarter increased significantly. Malaria and MNCH registered a decrease in the total lines delivered this quarter while FP/RH lines witnessed an increase. Overall backlog has increased, in line with the increase for HIV/AIDs products. The backlog increased from 4.9 percent last quarter to 6.1 percent this quarter.
TO1 - HIV	Overall delivery performance for HIV remains strong this quarter. OTD increased from 87 percent in the previous quarter to 89 percent this quarter, while backlog increased slightly to 7.6 percent. OTIF observed a slight decrease from 88 percent in the previous quarter to 87 percent this quarter. Laboratory products and Pediatric ARVs had the most significant impact on OTIF performance figures with OTIF rates of 86 percent and 76 percent, respectively. Laboratory again had the most line items of any product category with 75 percent of all lines delivered in Q1. Looking closer at backlog performance, the backlog has risen by 2 percentage points since last quarter. This can be mostly attributed to laboratory products, of which 199 remain undelivered and late this quarter.
TO2 - Malaria	Overall delivery performance for malaria remains strong this quarter. OTD remains unchanged from the previous quarter at 87 percent. While OTIF had a minor decrease to 86 percent from 88 percent in the previous quarter. Backlog also decreased from 4.1 percent in the previous quarter to just 1.7 percent this quarter. The minor decrease in OTIF can mostly be attributed to LLINs, which decreased from 89 percent OTIF to 85 percent OTIF. LLINs also comprised the great proportion of line items this quarter with 62 out of 122 lines delivered in the quarter.
TO3 - FP/RH	Overall delivery performance was strong for FP/RH products during the period. OTIF increased from 81 percent in the previous quarter to 92 percent this quarter. OTD also registered an increase from 85 percent in the previous quarter to 93 percent in this quarter. Backlog has decreased this quarter from 2.9 percent to just 0.9 percent this quarter. Combined oral contraceptives and implantable contraceptives had the largest impact on the improved performance with both product categories registered both 100 percent in OTIF and OTD this quarter. They had 18 and 45 lines delivered, respectively, out of the 139 lines delivered in the period.
TO4 - MNCH	Delivery performance was strong for MNCH products during the period. OTIF decreased to 88 percent from 100 percent in the previous quarter while OTD increased slightly to 100 percent from 97 percent in the previous quarter. Backlog decreased to just 1.2 percent from 3.3 percent in the previous quarter.

A1a. On-time, In-Full Delivery

Task Order	Total # of Line Items Delivered	OTIF	OTIF Target
TO1 - COVID19	3	100%	80%
TO1 - HIV	938	87%	80%
TO2 - Malaria	122	86%	80%
TO3 - FP/RH	139	92%	80%
TO4 - MNCH	8	88%	80%
Total	**1,210**	**87%**	**80%**

A1b. On-time Delivery

Task Order	Total # of Line Items with ADDs in the quarter	OTD	OTD Target
TO1 - COVID19	4	75%	80%
TO1 - HIV	984	89%	80%
TO2 - Malaria	122	87%	80%
TO3 - FP/RH	148	93%	80%
TO4 - MNCH	8	100%	80%
Total	**1,266**	**89%**	**80%**

A16. Backlog Percentage

Task Order	Total # of line items with ADDs in the last 12 months	Backlog	Backlog target
TO1 - COVID19	138	5.8%	5%
TO1 - HIV	3,470	7.6%	5%
TO2 - Malaria	645	1.7%	5%
TO3 - FP/RH	339	0.9%	5%
TO4 - MNCH	86	1.2%	5%
Total	**4,678**	**6.1%**	**5%**

Delivery Performance

Current Reporting Period

2024-Q1

Task Order	A1a. OTIF rate		A1b. OTD rate		A16. Backlog percentage	
	OTIF	Total # of Line Items Delivered	OTD	Total # of Line Items with ADDs in the quarter	Backlog	Total # of line items with ADDs in the last 12 months
TO1 - COVID19	**100%**	**3**	**75%**	**4**	**5.8%**	**138**
COVID19	100%	3	75%	4	5.8%	138
TO1 - HIV	**87%**	**938**	**89%**	**984**	**7.6%**	**3,470**
Adult ARV	85%	53	72%	65	8.7%	263
Condoms	94%	32	100%	31	5.3%	133
Food and WASH					0.0%	1
Laboratory	86%	708	90%	739	8.4%	2,378
Other Non-Pharma	97%	29	84%	37	6.8%	176
Other Pharma	95%	55	100%	53	5.3%	208
Other RTK	67%	3	29%	7	14.3%	28
Pediatric ARV	76%	29	81%	26	3.4%	149
TB HIV	87%	15	92%	13	2.1%	48
Vehicles and Other Equipment	100%	2	100%	2		
VMMC	92%	12	100%	11	2.3%	86
TO2 - Malaria	**86%**	**122**	**87%**	**122**	**1.7%**	**645**
ACTs	94%	32	97%	31	0.0%	236
Laboratory	86%	7	100%	6	0.0%	58
LLINs	85%	62	84%	64	4.6%	152
mRDTs	80%	10	80%	10	3.2%	62
Other Non-Pharma	0%	2	0%	2	0.0%	7
Other Pharma	50%	2	100%	1	0.0%	9
Other RTK					0.0%	1
Severe Malaria Meds	100%	4	75%	4	1.5%	68
SMC					0.0%	25
SP	100%	3	100%	4	3.7%	27

Task Order	A1a. OTIF rate		A1b. OTD rate		A16. Backlog percentage	
	OTIF	Total # of Line Items Delivered	OTD	Total # of Line Items with ADDs in the quarter	Backlog	Total # of line items with ADDs in the last 12 months
TO3 - FP/RH	**92%**	**139**	**93%**	**148**	**0.9%**	**339**
Combined Oral Contraceptives	100%	18	100%	19	0.0%	49
Copper-Bearing Intrauterine Devices	50%	12	50%	12	0.0%	23
Emergency Oral Contraceptives	100%	10	100%	10	0.0%	19
Implantable Contraceptives	100%	45	100%	45	1.1%	87
Injectable Contraceptives	94%	31	88%	42	2.0%	102
Laboratory					0.0%	2
Levonorgestrel-Releasing Intrauterine Devices					0.0%	3
Other Non-Pharma	75%	8	100%	6	0.0%	20
Progestin Only Pills	93%	15	100%	14	0.0%	28
Standard Days Method					0.0%	6
TO4 - MNCH	**88%**	**8**	**100%**	**8**	**1.2%**	**86**
Food and WASH			100%	1	100.0%	1
Laboratory					0.0%	1
Other Non-Pharma					0.0%	10
Other Pharma	88%	8	100%	7	0.0%	74

Data notes

See "Indicator Details" pages in this report for more information.

Quarterly indicator targets are effective beginning FY2018 Q4.

Line items are considered on time if they are delivered between 14 calendar days before and up to 7 calendar days after the agreed delivery date.

All male and female condom and lubricant deliveries are reported under TO1.

Cycle Time Performance

Current Reporting Period

2024-Q1

A3. Average overall and dwell-adjusted cycle time

Task Order	# of line items delivered	Average Cycle Time	Cycle time target	Average dwell-adjusted cycle time	Dwell-adjusted cycle time target
TO1 - COVID19	3	248	250	248	250
TO1 - HIV	938	265	250	256	250
TO2 - Malaria	122	330	340	288	300
TO3 - FP/RH	139	317		313	
TO4 - MNCH	8	343	350	343	350
Total	**1210**	**278**		**266**	

A3. Average overall and dwell-adjusted cycle time (TO3 detail)

Task Order	# of line items delivered	Average Cycle Time	Cycle time target	Average dwell-adjusted cycle time	Dwell-adjusted cycle time target
TO3 - FP/RH	**139**	**317**		**313**	
Direct drop fulfillment	45	347	300	339	300
Warehouse fulfillment	94	302	250	301	250

See next page for break downs by process segment, product category, fulfillment channel, and transportation mode

TO	Analysis
TO1 - HIV	End-to-end cycle time for HIV/AIDS products increased to 265 days this quarter with dwell-adjusted cycle time at 256 days. There were more than 70 lines for both Tanzania (75) and DRC (83) which had a cycle time of more than 390 days. Other lines for Zambia (50 in total) and Kenya (72 in total) which experienced a cycle time of more than 310 days. Amongst product groups, Adult ARVs, Pharma and Other Non-Pharma all experienced a cycle time of more than 310 days. Breaking down the components of cycle time, the Manufacture segment increased noticeably from 66 days in the last quarter to 96 days in the present quarter. Eleven percent of line items had holds applied to them.
TO2 - Malaria	End-to-end cycle time for Malaria products decreased to 330 days this quarter, with a dwell adjusted cycle time of 288 days. The cycle times were below the target of actual cycle time (340) and dwell-adjusted cycle time (300). Amongst countries, there were 8 lines for Sierra Leone which had an average cycle time of 485 days. There were another 19 lines for Nigeria which had an average cycle time of 333 days. Both these two sets of country-lines accounted for more than 25 percent of the lines this quarter. Amongst products, LLINs accounted for 62 lines (out of 122 total) and experienced an average cycle time of more than 340 days. Countries like DRC, Nigeria and Sierra Leone received deliveries for LLINs this quarter. The DRC lines had exceptionally long cycle times because of Force Majeure (heavy rains) flooding of roads which impacted the delivery segment. There was a delay in the Sierra Leone due to a revised campaign schedule. The Sourcing and Planning as well as the Pick Up segment witnessed a reduction in the average number of days to 82 and 49 days respectively.
TO3 - FP/RH	End-to-end cycle time for warehouse fulfilment decreased further this quarter to 302 days, with a dwell-adjusted cycle time of 300 days. Cycle time for direct drop fulfilment increased this quarter to 347 days, with a dwell-adjusted average time of 339 days. Implants accounted for the highest number of lines in both types of fulfilments channels. There were a total of 45 lines under the direct drop fulfilment channel, 5 of those lines were for Bangladesh which witnessed an average cycle time of 530 days. Mozambique had another 9 lines with an average cycle time of 363 days. Among product groups under direct drop fulfilment: Implants, Injectables and Other Non-Pharma carried the highest weight in number of lines and witnessed the highest cycle times. All of them i.e. Implants (374 days), Injectables (337 days) and Other Non-Pharma (438 days) experienced a cycle time of more than 330 days. Delving into segment data, this quarter witnessed a noticeable increase in the Process PO/DO and Deliver segment under direct drop fulfilment. Like the last few quarters, under warehouse fulfilment, DRC had the highest number of lines (66/94 lines). DRC faces a long cycle time due to import difficulties and an unpredictable and long waiver process. Implants, the largest product group, witnessed a cycle time of 382 days. At the segment level, there was a decrease in almost all segment times except Deliver for the warehouse fulfilment channel.
TO4 - MNCH	End-to-end cycle time for Maternal and Child health products decreased to 343 days this for both average and dwell-adjusted cycle time, below the target of 350 days. There were a total of 8 pharma lines for DRC, Mozambique and Haiti. One line for Congo DRC had a long cycle time of 634 days.

Data notes

Data on overall cycle start and end dates are complete for all line items delivered this quarter. However, internal milestone data may not be complete for some line items. In these cases, line items with incomplete data are excluded from the segment averages. For this reason, the sum of all segments may not be equal to the overall average per task order and fulfillment channel, especially in earlier reporting periods.

Overall cycle time is defined as the number of days between when a customer order is submitted to when the shipment is actually delivered to the customer, inclusive of the start/end days and all holds or other dwell times. Dwell-adjusted cycle time is defined as the overall cycle time with all days of measurable dwell time deducted. Dwell is measured using system timestamps for the start and end for a set of acceptable holds, as defined by the GHSC-PSM hold status policy.

Quarterly indicator targets are set for overall and dwell-adjusted cycle times. For all task orders except TO2, the overall and dwell-adjusted targets are the same. Targets are not set for individual segments for any task order.

Cycle Time Performance

Current Reporting Period

2024-Q1

A3. Average overall cycle time by product group, fulfillment channel, and transportation mode (TO1, TO2, and TO3)

Fulfillment Channel	Direct Drop Fulfillment			Warehouse Fulfillment		Total
Task Order	Air	Land	Sea	Air	Sea	
TO1 - COVID19			**248**			**248**
COVID19			248			**248**
TO1 - HIV	**265**	**235**	**352**	**189**	**263**	**265**
Adult ARV	219	333	396	385	293	**312**
Condoms			308	157	141	**293**
Laboratory	261	222	335			**248**
Other Non-Pharma	286	337	397			**322**
Other Pharma	312	275	364			**329**
Other RTK	280					**280**
Pediatric ARV	314		262	58		**298**
TB HIV	342		382			**358**
Vehicles and Other Equipment		996				**996**
VMMC	217	130	455			**215**
TO2 - Malaria	**375**	**99**	**321**		**344**	**330**
ACTs	268	99	275		344	**274**
Laboratory	603					**603**
LLINs	149		349			**346**
mRDTs	278		269			**270**
Other Non-Pharma			259			**259**
Other Pharma	346					**346**
Severe Malaria Meds	404		220			**312**
SP	233					**233**
TO3 - FP/RH	**345**	**451**	**333**	**246**	**309**	**317**
Combined Oral Contraceptives			239	335	260	**263**
Copper-Bearing Intrauterine Devices				143	228	**214**
Emergency Oral Contraceptives			257			**257**
Implantable Contraceptives	356		618	167	398	**380**
Injectable Contraceptives	194	451	327	386	281	**308**
Other Non-Pharma		451	434			**438**
Progestin Only Pills				244	273	**267**

A3. Average overall cycle time by product group, fulfillment channel, and transportation mode (TO4)

Fulfillment Channel	Direct Drop Fulfillment		Total
Product Category	Multiple	Sea	
Other Pharma	634	301	**343**
Total	**634**	**301**	**343**

Data notes

Data on overall cycle start and end dates are complete for all line items delivered this quarter. However, internal milestone data may not be complete for some line items. In these cases, line items with incomplete data are excluded from the segment averages. For this reason, the sum of all segments may not be equal to the overall average per task order and fulfillment channel, especially in earlier reporting periods.

Overall cycle time is defined as the number of days between when a customer order is submitted to when the shipment is actually delivered to the customer, inclusive of the start/end days and all holds or other dwell times. Dwell-adjusted cycle time is defined as the overall cycle time with all days of measurable dwell time deducted. Dwell is measured using system timestamps for the start and end for a set of acceptable holds, as defined by the GHSC-PSM hold status policy.

Quarterly indicator targets are set for overall and dwell-adjusted cycle times. For all task orders except TO2, the overall and dwell-adjusted targets are the same. Targets are not set for individual segments for any task order.

Average cycle times by process segment

Fulfillment channel	Clarify and Source	USAID Approval	Process PO/DO	Manufacture/Prepare and Pick Up Order	Manufacture	Pick Up	Deliver
Direct drop fulfillment	**70**	**4**	**71**		**91**	**46**	**47**
TO1 - COVID19	49	2	48		39	15	94
TO1 - HIV	63	4	78		97	45	32
TO2 - Malaria		3	25		65	49	76
TO3 - FP/RH		3	68		64	43	64
TO4 - MNCH	106	2	35		90	26	84
Warehouse fulfillment	**66**	**7**	**77**	**43**	**17**	**26**	**104**
TO1 - HIV	35	5	91	44	7	37	53
TO2 - Malaria		0	4	29	6	23	178
TO3 - FP/RH		7	78	43	18	25	106
Total	**70**	**4**	**72**	**111**			**57**

Quality Assurance Performance (TO2 only)

Current Reporting Period

2024-Q1

A2. QA processes completed within required lead times

Task Order	Total # of QA processes completed	% QA Processes On Time	A2 Target
TO2 - Malaria	**66**	**94%**	**85%**
ACTs	31	90%	85%
LLINs	10	100%	85%
mRDTs	4	100%	85%
Other Pharma	4	100%	85%
Severe Malaria Meds	12	100%	85%
SMC	2	100%	85%
SP	3	67%	85%

A13. Out-of-specification percentage

Task Order	Total # of batches tested	Out-of-specification percentage	A13 Target
TO2 - Malaria	**191**	**0.0%**	**1%**
ACTs	82	0.0%	1%
LLINs	19	0.0%	1%
mRDTs	11	0.0%	1%
Other Pharma	2	0.0%	1%
Severe Malaria Meds	39	0.0%	1%
SMC	24	0.0%	1%
SP	14	0.0%	1%

Data notes

All QA activities for TO2 are conducted by GHSC-PSM. All QA activities for TO1, TO3, and TO4 are managed by the USAID GHSC-QA contract. GHSC-QA may be contacted for data related to these TOs.

Exceptional procedures outside of routine QA testing and clearance are excluded from indicator A2. This includes consignments requiring QA investigations, method transfers, non-PMI procurements, post-shipment quality control, and LLIN shipments requiring witnessing of loading and/or sealing of goods.

Quarterly indicator targets are effective beginning FY2018 Q4.

A15. QA investigation report submission (Q2 & Q4 only)

Task Order	# of reports due	Report submissions	A15 Target
TO2 - Malaria			
ACTs			
LLINs			
mRDTs			
Other Non-Pharma			
Other Pharma			
Severe Malaria Meds			
SP			

Ref	Analysis
A02	A total of 94 percent of QA/QC processes were completed within required lead times. This was a decrease from the 99 percent of last quarter. Lab Equipment issues impacted the overall score of Quality Assurance for one order of SP products, and three orders of ACTs.
A13	Out of specification findings was at 0 percent of batches tested, the same as last quarter.
A14b	The vendor scorecard rating for lab services decreased slightly this quarter to 91 percent from last quarter's 92 percent. This was noticeable in the reliability score, which decreased from 89 percent to 88 percent. Another decrease was in the responsiveness score, which reduced from 100 to 98 percent. The Service and Invoice Accuracy score remained the same at 84 and 100 percent, respectively. The reliability and responsiveness score carry more weight which has led to a decrease in the overall score.

Warehouse Performance and Product Losses

Current Reporting Period

2024-Q1

C7a and C7b. Product loss due to expiry, theft, damage and other causes while in GHSC-PSM control

Task Order	Country	Type of Loss	Product Group	Loss Value	Loss Denominator	% Loss
TO1 - HIV	RDC	Expiry	NA	$0	$3,451,257	0.00%
TO2 - Malaria	RDC	Expiry	NA	$0	$2,980,408	0.00%
TO3 - FP/RH	RDC	Expiry	NA	$0	$4,590,001	0.00%

A8. Shelf life remaining

Task Order	Inventory Balance	% Shelf Life Remaining	Shelf life target
TO1 - HIV	$3,689,351	83%	70%
TO2 - Malaria	$717,273	83%	70%
TO3 - FP/RH	$5,077,349	84%	80%
Total	**$9,483,973**	**83%**	

Data notes

- Average inventory balance (A4 and C7a denominator) is calculated using the ending balance at the close of each month.
- Expired inventory is excluded from shelf life calculations (A8). It is reported under product loss.
- Quarterly indicator targets are effective beginning FY2018 Q4. Per the project M&E plan, no targets are required for product loss indicators (C7a and C7b).
- Task Order 1 inventory includes all condoms. GHSC-PSM does not hold any inventory for Task Order 4.

Ref	Task Order	Analysis
A08	TO1 - HIV	In FY24 Q1, HIV-related products maintained an average shelf life of 83 percent. Apart from two specific items, the remaining shelf life for all other products exceeded 80 percent. COVID-Molnupiravir constituted 6 percent of the total value of HIV products, with a remaining shelf life of 58 percent. Additionally, the ARV dapivirine ring, representing 1.82 percent of the total value of HIV products, had a remaining shelf life of 51 percent. It's worth noting that this particular item was procured for a specific research project and is not currently allocated to any countries. Its impact on the overall results is minimal, primarily due to its limited quantity and relatively lower value.
A08	TO2 - Malaria	In FY24 Q1, the average weighted shelf life remaining for malaria products remained notably high at 83 percent. Almost all product categories exceeded the target of 80 percent, with the exception of one specific variation of Alu 20/120 mg Dispersible Tablet, procured twice exclusively by Belgium. This particular product, representing 7 percent of the total value of malaria products, had a shelf life of 64 percent remaining.
A08	TO3 - FP/RH	The average weighted shelf life remaining for family planning products increased to 84 percent in FY24 Q1, with all products exceeding the 80 percent target.
C07a	TO3 - FP/RH	There were no expiries of family planning products in GHSC-PSM's RDC inventory this quarter.
C07a	TO1 - HIV	There were no expiries of HIV/AIDS products in GHSC-PSM's RDC inventory this quarter.
C07a	TO2 - Malaria	There were no expiries of malaria products in GHSC-PSM's RDC inventory this quarter.
C07b	Crosscutting	Confirmed loss incidents within the global supply chain typically include product damage that occurred in transit to the destination. Most of these losses are typical for a supply chain of this size and represented a minimal proportion of the total value of product delivered in the quarters the losses took place. There were no reported losses in this quarter.

Procurement Performance

Current Reporting Period

2024-Q1

A10. Framework contract percentage

Task Order	Procurement total	Framework contract percentage	Framework contract target
TO1 - COVID19	$497,640	100%	90%
TO1 - HIV	$89,487,851	96%	90%
TO2 - Malaria	$34,028,896	98%	95%
TO3 - FP/RH	$15,230,834	100%	95%
TO4 - MNCH	$132,045	100%	85%
Total	**$139,377,266**	**97%**	**NA**

A10. Product-level detail

Task Order	Framework contract percentage	Procurement total
TO1 - COVID19	**100%**	**$497,640**
COVID19	100%	$497,640
TO1 - HIV	**96%**	**$89,487,851**
Adult ARV	100%	$47,096,180
Condoms	100%	$1,050,407
Laboratory	96%	$34,201,407
Other Non-Pharma	42%	$666,267
Other Pharma	100%	$936,370
Other RTK	4%	$1,345,738
Pediatric ARV	100%	$2,437,662
TB HIV	100%	$169,130
VMMC	100%	$1,584,689
TO2 - Malaria	**98%**	**$34,028,896**
ACTs	100%	$15,072,869
Laboratory	89%	$87,396
LLINs	0%	$48,400
mRDTs	100%	$450,000
Other Pharma	15%	$690,058
Severe Malaria Meds	100%	$6,772,597
SMC	100%	$10,398,796
SP	100%	$508,781

A10. Product-level detail

Task Order	Framework contract percentage	Procurement total
TO3 - FP/RH	**100%**	**$15,230,834**
Combined Oral Contraceptives	100%	$262,120
Emergency Oral Contraceptives	100%	$5,796
Implantable Contraceptives	100%	$12,062,588
Injectable Contraceptives	100%	$2,682,160
Other Non-Pharma	100%	$208,160
Standard Days Method	100%	$10,010
TO4 - MNCH	**100%**	**$132,045**
Other Non-Pharma	100%	$23,822
Other Pharma	100%	$108,223

Task Order	Analysis
TO1 - HIV	The use of framework contracts for HIV/AIDS procurement decreased slightly this quarter to 96 percent from 99 percent in the previous quarter. This decease was attributable to the Other Non-Pharma and Other RFK product categories, which utilized framework contracts this quarter for 42 percent and 4 percent of procurements, respectively. All other product categories remained at 100 percent, except for Laboratory, which was at 96 percent for the quarter.
TO2 - Malaria	Malaria procurements continued to remain about the target of framework contract percentage, with a value of 98 percent. This is a slight decrease from 100 percent in the previous quarter. The two categories driving this decrease were Other Pharma and Laboratory, which registered values of 15 percent and 89 percent utilization of framework contracts, respectively.
TO3 - FP/RH	Family planning continues to procure all items under framework contracts, per the sourcing strategy for these commodities. The indicator remains at 100 percent.
TO4 - MNCH	MNCH procurements were entirely conducted under framework contracts this quarter. The indicator stands at 100 percent.

Data notes

Procurement totals are equal to the total value of all line items procured from vendors each period. This includes Purchase Orders and warehouse Replenishment Orders. Distribution Orders released from the RDCs to countries are not counted, as these quantities are already included when the items are first purchased as Replenishment Orders.

Framework contracts include indefinite delivery, indefinite quantity contracts (IDIQs), blanket purchase agreements (BPAs), and basic ordering agreements (BOAs). Non-framework contracts include firm fixed price and fixed unit price subcontracts, simplified purchase agreements, and other types of one-off purchase orders.

Commodities are considered "purchased" if the "PO Released for Fulfillment Date" in ARTMIS falls within the reporting period.

Registration Waivers

A7. Temporary registration waiver percentage

Task Order	Temporary registration waiver percentage	Total # of line items delivered
TO3 - FP/RH	**7.0%**	**129**
Implantable Contraceptives	8.9%	45
Injectable Contraceptives	0.0%	31
Combined Oral Contraceptives	5.6%	18
Progestin Only Pills	0.0%	15
Copper-Bearing Intrauterine Devices	0.0%	12
Other Non-Pharma	50.0%	8
TO2 - Malaria	**9.0%**	**122**
LLINs	0.0%	62
ACTs	6.3%	32
mRDTs	40.0%	10
Laboratory	0.0%	7
Severe Malaria Meds	25.0%	4
SP	66.7%	3
Other Non-Pharma	0.0%	2
Other Pharma	100.0%	2
Total	**8.0%**	**251**

Task Order	Analysis
TO3 - FP/RH	The project utilized registration waivers for 7 percent of items, a slight increase from the 6.3 percent of last quarter. The majority of waivers were for Implantable and Other Pharma product groups followed by others. For Uganda, a number of waivers were required for Other Pharma products and CoCs. Waivers for implants were required for Mozambique.
TO2 - Malaria	The project utilized registration waivers for 9 percent of items, a reduction from the 10 percent of last quarter. The orders were spread across commodity groups of ACTS, mRDTs and SP. The maximum number of waivers were given in the mRDTs category.

Supply Plan Submissions

Current Reporting Period

2024-Q1

B6. Quarterly supply plan submission rate to GHSC-PSM HQ

Product Group	# of supply plans required	Supply plan submission rate	Submission target
ARVs	21	100%	95%
Condoms	21	100%	90%
FP commodities	21	100%	95%
Lab (HIV diagnostics)	15	100%	93%
Malaria commodities	27	96%	96%
RTKs	21	100%	95%
TPT	15	100%	93%
VMMC	5	100%	80%
Total	**146**		

Task Order	Analysis
TO1 - HIV	Submission rates for HIV supply plans was strong this quarter with 100 percent submission for Condoms, VMMC ,Lab ,TPTs, RTKs and ARVs.
TO2 - Malaria	Malaria supply plans submissions decreased to 96 percent this quarter.
TO3 - FP/RH	Supply plan submissions for family planning commodities and condoms was strong this quarter, with 100 percent of supply plans submitted for family planning commodities and condoms.

Supply Plan and Forecast Performance

Current Reporting Period

2024-Q1

A6a. Supply plan error - HIV Products

Product Category	Supply plan/ forecast error	Supply plan/ forecast bias	4-quarter error	Annual APE Target	4-quarter bias
Adult ARV	1%	1%	21%	22%	-21%
Condoms	81%	-81%	21%	30%	-21%
Laboratory	461%	-461%	1%	25%	1%
Pediatric ARV	50%	50%	15%	25%	15%

A6a. Supply plan error - Malaria products

Product Category	Supply plan/ forecast error	Supply plan/ forecast bias	4-quarter error	Annual APE Target	4-quarter bias
ACTs	26%	26%	12%	35%	-12%
mRDTs	11%	11%	12%	25%	-12%

A6b. Forecast error - Family Planning products

Product Category	Supply plan/ forecast error	Supply plan/ forecast bias	4-quarter error	Annual APE Target	4-quarter bias
Combined Oral Contraceptives	78%	-78%	42%	25%	-42%
Copper-bearing Intrauterine Devices	189%	-189%	4%	30%	-4%
Implantable Contraceptives	18%	18%	5%	25%	5%
Injectable Contraceptives	38%	-38%	11%	22%	-11%
Progestin Only Pills	30%	-30%	4%	25%	4%

Task Order	Analysis
Crosscutting	
TO1 - HIV	Supply plan error for adult ARVs decreased to 1 percent this quarter, from the 99 percent of last quarter. The rolling four-quarter metric stood at 21 percent. The error emanated from 71, 000 units of Adult ARV which were ordered by Nigeria but was not included in the supply plan. For pediatric ARV, the planned amount in the supply plans was almost half the amount which was requested. The supply plan error for pediatric ARVs stood at 50 percent with the rolling four-quarter metric at 15 percent. Tanzania and Zambia ordered 269,000 and 71,000 units respectively, both of these orders were not present in the supply plan.
TO1 - HIV	The forecast error for condoms increased to 81 percent this quarter with a rolling four-quarter metric of 21 percent. There was a change in the forecasting methodology so at to accommodate short lead time, which led to increased forecasts across other products including condoms. In the next quarter, the previous methodology will be reinstated.
TO1 - HIV	There was a significant increase in the in the supply plan error for lab commodities, the supply plan error increased to 461 percent. The planned amount was considerably higher than the ordered amount. The maximum number of units which did not materialize into actual orders, were under Other lab products. There were 47,775 units of lab consumables planned for Zambia, but the resultant ordered units stood at 0. Under EID lab products, there were 3,057 units planned for Tanzania and Ethiopia which did not convert into actual orders. A similar trend was observed under Molecular products, there were a total of 5819 products which were planned for Ethiopia which did not materialize into orders. The rolling four-quarter metric decreased to 1 percent this quarter, the requested quantity drastically reduced this quarter (compared to previous quarters).
TO2 - Malaria	Overall there was a decrease in the supply plan error for Malaria commodities. Supply plan error for ACTs decreased to 26 percent, with a four-quarter rolling metric of 12 percent. The error emanated from under forecasting for ALs. The AL supply plan error stood at 27 percent, which is a decrease from the significant error of 185 percent (from last quarter). The rolling four-quarter metric stood at 32 percent. They were AL orders from Nigeria and Ethiopia not present in the supply plans, which led to the error. Approximately 2,500,000 and 2,000,000 units of AL was ordered for Nigeria and Ethiopia respectively, neither of the orders were forecasted. The supply plan error for ASAQ stood at 0 percent. For mRDTs, the supply plan error decreased to 11 percent with a rolling four-quarter metric at 12 percent. The amount ordered was almost quadruple the number of units in the supply plan of Zambia. This led to a difference of 2,637,625 units between the forecasted supply plan amount and the ordered quantity. For Uganda, the difference between forecasted and ordered stood at 611,600 units.
TO3 - FP/RH	Overall there was an increase in the forecast error for all family planning commodities. In this quarter there were changes to the forecasting methodology which led to increased and unfulfilled forecasts for almost all products, except implants. While forecasting, there was additional leeway given to forecasts to accommodate for countries ordering with a short lead time. However this strategy led to over forecasting. The forecast error for Injectables increased to 38 percent with a four-quarter rolling metric at 11 percent. This was partly due to an order for Bangladesh of 1 million units which was placed with a short lead time. The forecast error for Combined Oral Contraceptives increased from 27 percent of the last quarter to 78 percent in this quarter, with a four-quarter rolling metric at 42 percent. The error increased due to two orders from Madagascar and Mali. For Progestin-only pills, the forecast error increased to 30 percent due to the change in forecasting methodology. Under copper-bearing IUDs, the error increased to 189 percent this quarter with a four-quarter rolling metric at 4 percent. The total requested and planned quantity for CuIDs drastically decreased this quarter. There was an order forecasted of 6000 units for Bangladesh which did not materialize. For Implants, the forecast error increased to 18 percent with a four-quarter rolling metric at 5 percent. This was partly due to two unforeseen orders from Kenya. The total requested and planned amount for Implants increased significantly in the present quarter. For the successive quarters, the old forecasting methodology will be reinstated.

Vendor Performance

Current Reporting Period

2024-Q1

A14a-c. Average vendor rating score

Vendor Type	Average vendor rating
Commodity Supplier	61%
Freight Forwarder	86%
QA Lab	91%

14b. QA Lab Vendor Scorecard Components, Weighting, and Scores

Component Name	Indicator Name	Indicator Score	Indicator Weight (Overall)	Overall Weighted Score
1 - Reliability (Timeliness of Service)	Does the lab provide on-time provision of completed test reports?	88%	48%	42%
2 - Responsiveness	Does the lab provide prompt response after receipt of GHSC-PSM request for testing	98%	15%	15%
3 - Completeness of Documentation	Frequency of modification to Certificates of Analysis (CoA)	94%	18%	16%
4 - Invoice Accuracy	Submitted invoices for routing testing adhere to set IDIQ pricing	100%	10%	10%
5 - Service	Adherence to other terms and conditions, not related to reliability, responsiveness, completeness, and cost (Qualitative)	84%	10%	8%
Total			**100%**	**91%**

Analysis

This quarter's average freight forwarder vendor rating shows an 86 percent average performance for third-party logistics (3PL), slightly down from last quarter's 89 percent. Performance across metrics such as EDI status, booking timeliness, invoicing accuracy, spot quote turnaround, responsiveness, and non-compliance report remained consistent with the high performance observed in the previous quarter. However, the timeliness sub-indicator within the invoicing accuracy component decreased to 39 percent this quarter from its previous 67 percent. It is expected that this metric will improve in subsequent quarters as data reviews continue and rate refresh from 3PLs improves.

The vendor scorecard rating for lab services decreased slightly this quarter to 91 percent from last quarter's 92 percent. This was noticeable in the reliability score, which decreased from 89 percent to 88 percent. Another decrease was in the responsiveness score, which reduced from 100 to 98 percent. The Service and Invoice Accuracy score remained the same at 84 and 100 percent, respectively. The reliability and responsiveness score carry more weight which has led to a decrease in the overall score.

Supplier on-time performance rose by 3 percent to reach 61 percent in FY24 Q1, maintaining relatively consistent performance over the past quarter. The reported 61 percent is expected to improve slightly as data reviews continue with suppliers and acceptable rationale for GAD changes or delays are logged in the system, consistent with past quarters. Task Order 1 suppliers, handling the highest overall volume of orders, have not met standard expectations but have shown improvement compared to recent quarters, while Task Order 3 suppliers have experienced a decline in performance. Lab commodity suppliers have improved, but ARV and essential medicine suppliers have continued to struggle as in the past quarter. Incorrect or delayed shipping documents remain a leading cause of orders marked as late, emphasizing the need for timelier documentation of updated or revised GADs to improve overall scores.

Data notes

Components and indicators for the 3PL scorecard have changed over time. Version 1 of the scorecard was in effect up to FY2018 Q2. Version 2 was in effect from FY2018 Q3 until FY2022 Q4. Version 3 took effect in FY2023 Q1. See the M&E plan for full details of scorecarde changes over time.

Per the GHSC-PSM M&E plan, targets are not required for vendor performance indicators.

Complete Quarterly Results (TO1)

Reporting Period

2024-Q1

A1a. OTIF rate / A1b. OTD rate / A16. Backlog percentage / A10. Framework contracting

Task Order	OTIF	Total # of Line Items Delivered	OTD	Total # of Line Items with ADDs in the quarter	Backlog	Total # of line items with ADDs in the last 12 months	Framework contract percentage	Procurement total
TO1 - COVID19	**100%**	**3**	**75%**	**4**	**5.8%**	**138**	**100%**	**$497,640**
COVID19	100%	3	75%	4	5.8%	138	100%	$497,640
TO1 - HIV	**87%**	**938**	**89%**	**984**	**7.6%**	**3,470**	**96%**	**$89,487,851**
Adult ARV	85%	53	72%	65	8.7%	263	100%	$47,096,180
Condoms	94%	32	100%	31	5.3%	133	100%	$1,050,407
Food and WASH					0.0%	1		
Laboratory	86%	708	90%	739	8.4%	2,378	96%	$34,201,407
Other Non-Pharma	97%	29	84%	37	6.8%	176	42%	$666,267
Other Pharma	95%	55	100%	53	5.3%	208	100%	$936,370
Other RTK	67%	3	29%	7	14.3%	28	4%	$1,345,738
Pediatric ARV	76%	29	81%	26	3.4%	149	100%	$2,437,662
TB HIV	87%	15	92%	13	2.1%	48	100%	$169,130
Vehicles and Other Equipment	100%	2	100%	2				
VMMC	92%	12	100%	11	2.3%	86	100%	$1,584,689
Total	**87%**	**941**	**89%**	**988**	**7.5%**	**3,608**	**96%**	**$89,985,491**

A6a and A6b. Absolute percent supply plan or forecast ...

A6 Indicator	Supply plan/ forecast error	Supply plan/ forecast bias	4-quarter error	4-quarter bias
A6a - Supply plan error				
Adult ARV	1%	1%	21%	-21%
Laboratory	461%	-461%	1%	1%
Pediatric ARV	50%	50%	15%	15%
A6b - Forecast Error				
Condoms	81%	-81%	21%	-21%

C7a and C7b. Product loss due to expiry, theft, damage, and other causes

Country	Type of Loss	Product Group	Loss Value	Loss Denominator	% Loss
RDC	Expiry	NA	$0	$3,451,257	0.00%

A3. Cycle time (average)

Fulfillment Channel	Direct Drop Fulfillment			Warehouse Fulfillment		**Total**
Task Order	Air	Land	Sea	Air	Sea	
TO1 - COVID19			**248**			**248**
COVID19			248			**248**
TO1 - HIV	**265**	**235**	**352**	**189**	**263**	**265**
Adult ARV	219	333	396	385	293	**312**
Condoms			308	157	141	**293**
Laboratory	261	222	335			**248**
Other Non-Pharma	286	337	397			**322**
Other Pharma	312	275	364			**329**
Other RTK	280					**280**
Pediatric ARV	314		262	58		**298**
TB HIV	342		382			**358**
Vehicles and Other Equipment		996				**996**
VMMC	217	130	455			**215**
Total	**265**	**235**	**349**	**189**	**263**	**265**

A8. Shelf life remaining

% Shelf Life Remaining	Inventory Balance
83%	$3,689,351

B6. Quarterly supply plan submissions

Product Group	Supply plan submission rate	# of supply plans required
ARVs	100%	21
Condoms	100%	21
Lab (HIV diagnostics)	100%	15
RTKs	100%	21
VMMC	100%	5

Crosscutting indicators

A14. Average vendor ratings

Vendor Type	Average vendor rating
Commodity Supplier	61%
Freight Forwarder	86%

Complete Quarterly Results (TO2)

Reporting Period

2024-Q1

	A1a. OTIF rate		A1b. OTD rate		A16. Backlog		A7. Waiver percentage	A10. Framework contracting			A2. QA processes on time		A13 Out-of-spec		A15. QA reports	
Task Order	OTIF	Total # of Line Items Delivered	OTD	Total # of Line Items with ADDs in the quarter	Backlog	Total # of line items with ADDs in the last 12 months	Temporary registration waiver percentage	Total # of line items delivered	Framework contract percentage	Procurement total	% QA Processes On Time	Total # of QA processes completed	Out-of-specification percentage	Total # of batches tested	Report submissions	# of reports due
TO2 - Malaria	**86%**	**122**	**87%**	**122**	**1.7%**	**645**	**9.0%**	**122**	**98%**	**$34,028,896**	**94%**	**66**	**0.0%**	**191**		
ACTs	94%	32	97%	31	0.0%	236	6.3%	32	100%	$15,072,869	90%	31	0.0%	82		
Laboratory	86%	7	100%	6	0.0%	58	0.0%	7	89%	$87,396						
LLINs	85%	62	84%	64	4.6%	152	0.0%	62	0%	$48,400	100%	10	0.0%	19		
mRDTs	80%	10	80%	10	3.2%	62	40.0%	10	100%	$450,000	100%	4	0.0%	11		
Other Non-Pharma	0%	2	0%	2	0.0%	7	0.0%	2								
Other Pharma	50%	2	100%	1	0.0%	9	100.0%	2	15%	$690,058	100%	4	0.0%	2		
Other RTK					0.0%	1										
Severe Malaria Meds	100%	4	75%	4	1.5%	68	25.0%	4	100%	$6,772,597	100%	12	0.0%	39		
SMC					0.0%	25			100%	$10,398,796	100%	2	0.0%	24		
SP	100%	3	100%	4	3.7%	27	66.7%	3	100%	$508,781	67%	3	0.0%	14		
Total	**86%**	**122**	**87%**	**122**	**1.7%**	**645**	**9.0%**	**122**	**98%**	**$34,028,896**	**94%**	**66**	**0.0%**	**191**		

A3. Cycle time (average)

Fulfillment Channel	Direct Drop Fulfillment			Warehouse Fulfillment	**Total**
Task Order	Air	Land	Sea	Sea	
TO2 - Malaria	**375**	**99**	**321**	**344**	**330**
ACTs	268	99	275	344	**274**
Laboratory	603				**603**
LLINs	149		349		**346**
mRDTs	278		269		**270**
Other Non-Pharma			259		**259**
Other Pharma	346				**346**
Severe Malaria Meds	404		220		**312**
SP	233				**233**
Total	**375**	**99**	**321**	**344**	**330**

B6. Quarterly supply plan submissions

Product Group	Supply plan submission rate	# of supply plans required
Malaria commodities	96%	27

A6a. Absolute percent supply plan error

A6 Indicator	Supply plan/ forecast error	Supply plan/ forecast bias	4-quarter error	4-quarter bias
A6a - Supply plan error				
ACTs	26%	26%	12%	-12%
mRDTs	11%	11%	12%	-12%

A8. Shelf life remaining

% Shelf Life Remaining	Inventory Balance
83%	$717,273

Crosscutting indicators

A14. Average vendor ratings

Vendor Type	Average vendor rating
Commodity Supplier	61%
Freight Forwarder	86%

C7a and C7b. Product loss due to expiry, theft, damage, and other causes

Country	Type of Loss	Product Group	Loss Value	Loss Denominator	% Loss
RDC	Expiry	NA	$0	$2,980,408	0.00%

A14. Average vendor rating - QA labs

Average vendor rating
91%

Complete Quarterly Results (TO3)

Reporting Period

2024-Q1

A1a. OTIF rate A1b. OTD rate A16. Backlog percentage A10. Framework contracting

Task Order	OTIF	Total # of Line Items Delivered	OTD	Total # of Line Items with ADDs in the quarter	Backlog	Total # of line items with ADDs in the last 12 months	Framework contract percentage	Procurement total
TO3 - FP/RH	**92%**	**139**	**93%**	**148**	**0.9%**	**339**	**100%**	**$15,230,834**
Combined Oral Contraceptives	100%	18	100%	19	0.0%	49	100%	$262,120
Copper-Bearing Intrauterine Devices	50%	12	50%	12	0.0%	23		
Emergency Oral Contraceptives	100%	10	100%	10	0.0%	19	100%	$5,796
Implantable Contraceptives	100%	45	100%	45	1.1%	87	100%	$12,062,588
Injectable Contraceptives	94%	31	88%	42	2.0%	102	100%	$2,682,160
Laboratory					0.0%	2		
Levonorgestrel-Releasing Intrauterine Devices					0.0%	3		
Other Non-Pharma	75%	8	100%	6	0.0%	20	100%	$208,160
Progestin Only Pills	93%	15	100%	14	0.0%	28		
Standard Days Method					0.0%	6	100%	$10,010
Total	**92%**	**139**	**93%**	**148**	**0.9%**	**339**	**100%**	**$15,230,834**

A7. Temporary Waiver Percentage

Task Order	Temporary registration waiver percentage	Total # of line items delivered
TO3 - FP/RH	**7.0%**	**129**
Other Non-Pharma	50.0%	8
Implantable Contraceptives	8.9%	45
Combined Oral Contraceptives	5.6%	18
Copper-Bearing Intrauterine Devices	0.0%	12
Injectable Contraceptives	0.0%	31
Progestin Only Pills	0.0%	15
Total	**7.0%**	**129**

A3. Cycle time (average)

Fulfillment Channel	Direct Drop Fulfillment			Warehouse Fulfillment		**Total**
Task Order	Air	Land	Sea	Air	Sea	
TO3 - FP/RH	**345**	**451**	**333**	**246**	**309**	**317**
Combined Oral Contraceptives			239	335	260	**263**
Copper-Bearing Intrauterine Devices				143	228	**214**
Emergency Oral Contraceptives			257			**257**
Implantable Contraceptives	356		618	167	398	**380**
Injectable Contraceptives	194	451	327	386	281	**308**
Other Non-Pharma		451	434			**438**
Progestin Only Pills				244	273	**267**
Total	**345**	**451**	**333**	**246**	**309**	**317**

C7a and C7b. Product loss due to expiry, theft, damage, and other causes

Country	Type of Loss	Product Group	Loss Value	Loss Denominator	% Loss
RDC	Expiry	NA	$0	$4,590,001	0.00%

A6b. Absolute percent forecast error

A6 Indicator	Supply plan/ forecast error	Supply plan/ forecast bias	4-quarter error	4-quarter bias
A6b - Forecast Error				
Combined Oral Contraceptives	78%	-78%	42%	-42%
Condoms	81%	-81%	21%	-21%
Copper-bearing Intrauterine Devices	189%	-189%	4%	-4%
Implantable Contraceptives	18%	18%	5%	5%
Injectable Contraceptives	38%	-38%	11%	-11%
Progestin Only Pills	30%	-30%	4%	4%

B6. Quarterly supply plan submissions

Product Group	Supply plan submission rate	# of supply plans required
Condoms	100%	21
FP commodities	100%	21

A8. Shelf life remaining

% Shelf Life Remaining	Inventory Balance
84%	$5,077,349

Crosscutting indicators

A14. Average vendor ratings

Vendor Type	Average vendor rating
Commodity Supplier	61%
Freight Forwarder	86%

Complete Quarterly Results (TO4)

Reporting Period

2024-Q1

	A1a. OTIF rate		A1b. OTD rate		A16. Backlog perentage		A10. Framework contracting
Task Order	OTIF	Total # of Line Items Delivered	OTD	Total # of Line Items with ADDs in the quarter	Backlog	Total # of line items with ADDs in the last 12 months	Framework contract percentage	Procurement total
TO4 - MNCH	**88%**	**8**	**100%**	**8**	**1.2%**	**86**	**100%**	**$132,045**
Food and WASH			100%	1	100.0%	1		
Laboratory					0.0%	1		
Other Non-Pharma					0.0%	10	100%	$23,822
Other Pharma	88%	8	100%	7	0.0%	74	100%	$108,223
Total	**88%**	**8**	**100%**	**8**	**1.2%**	**86**	**100%**	**$132,045**

Crosscutting indicators

A14. Average vendor ratings

Vendor Type	Average vendor rating
Commodity Supplier	61%
Freight Forwarder	86%

A3. Cycle time (average)

Task Order	Direct Drop Fulfillment	**Total**
TO4 - MNCH	**343**	**343**
Other Pharma	343	**343**
Total	**343**	**343**

Indicator Details

Check out the GHSC-PSM IDIQ M&E Plan for complete details on all our indicators.

Delivery Indicators

Indicator Code	Name	Numerator	Denominator	Data Source(s)	Reporting frequency	Other Info
A01a	On Time, In Full Delivery (OTIF) - Percentage of line items delivered on time and in full, within the minimum delivery window (within -14/+7 calendar days of the agreed delivery date (ADD))	Number of line items delivered to the recipient on time and in full during the quarter	Total number of line items delivered to the recipient during the quarter	ARTMIS	Quarterly	Lines items are considered on-time and in-full if the full ordered quantity of the line item is delivered to the recipient within the -14/+7 day delivery window. If the line item is partially delivered within the window, it may be considered on-time but not in-full.
A01b	On Time Delivery (OTD) — Percentage of line items delivered on time, within the minimum delivery window (within -14/+7 calendar days of the agreed delivery date (ADD))	Number of line items with an ADD during the quarter that were delivered to the recipient on time	Total number of line items with an ADD during the quarter	ARTMIS	Quarterly	
A16	Percentage of backlogged line items	Number of line items with an ADD on or before the reporting period end date, within a rolling 12-month period, that have not been cancelled or put on hold and that are currently undelivered and late	Total number of line items with an ADD on or before the reporting period end date, within a rolling 12-month period, that have not been cancelled or put on hold	ARTMIS	Quarterly	

Cycle time Indicators

Indicator Code	Name	Numerator	Denominator	Data Source(s)	Reporting frequency	Other Info
A03a	Cycle time (average)	Sum of cycle time for all line items delivered during the quarter	Count of all line items delivered during the quarter	ARTMIS	Quarterly	Overall cycle time is defined as the number of days between when a customer order is submitted to when the shipment is actually delivered to the customer, inclusive of the start/end days and all holds or other dwell times.
A03b	Dwell-adjusted cycle time (average)	Sum of cycle time for all line items delivered during the quarter, excluding all defined inactive dwell periods from the overall cycle time	The count of all line items delivered during the quarter	ARTMIS	Quarterly	Dwell-adjusted cycle time is defined as the overall cycle time minus the sum of all dwell durations for all holds placed on the line item during its fulfillment.

Indicator Details

Check out the GHSC-PSM IDIQ M&E Plan for complete details on all our indicators.

Quality Assurance Indicators

Indicator Code	Name	Numerator	Denominator	Data Source(s)	Reporting frequency	Other Info
A02	Percentage of QA processes completed within the total estimated QA lead times (on-time completion rate for QA processes)	Number of consignments complying with the pre-established QA lead times during the quarter	Total number of consignments requiring QA processes that were cleared for shipment during the quarter	QA Database	Quarterly	Consignment is defined as a shipment of commodities, including one or more line items. QA process transactions are managed at the consignment level, regardless of the number of line items in the consignment.
A13	Percentage of batches of product for which the final result is showing nonconformity (out of specification percentage)	Total number of batches of product showing nonconformity during the quarter	Total number of batches tested during the quarter	QA Database	Quarterly	
A14b	Average vendor rating score - QA lab services	Sum of all key vendor ratings.	Number of key vendors from whom GHSC-PSM procured lab testing services during the quarter	QA scorecard	Quarterly	All vendors are equally weighted in the overall score, regardless of procurement volume from each vendor.
A15	Percentage of quality assurance Investigation reports submitted within 30 calendar days of outcome determination (QA investigation report submission)	Number of QA investigation reports submitted to PMI within 30 days of outcome determination	Total number of QA investigation reports due during the reporting period	QA Database, email submissions	Semiannual	

Procurement Indicators

Indicator Code	Name	Numerator	Denominator	Data Source(s)	Reporting frequency	Other Info
A07	Percentage of line items imported using a temporary registration waiver (temporary waiver percentage)	Number of line items that were imported using a temporary registration waiver	Total number of line items delivered to the recipient during the quarter	Supplier registration bidding documentation	Quarterly	
A10	Percentage of product procured using a framework contract (framework contract percentage)	Value of product purchased through framework contracts during the quarter	Total value of commodities purchased during the quarter	ARTMIS	Quarterly	

Indicator Details

Check out the GHSC-PSM IDIQ M&E Plan for complete details on all our indicators.

Forecast and Supply Planning Indicators

Indicator Code	Name	Numerator	Denominator	Data Source(s)	Reporting frequency	Other Info
A06a	Absolute percent supply plan error, with variants annual absolute percent error and supply plan bias	Absolute value of the differences between the actual quantities with requested delivery dates during the quarter minus the quantities planned for delivery according to country supply plans	Sum of the actual quantities with requested delivery dates during the quarter	ARTMIS, Country Supply Plans	Quarterly	Supply plan error is currently calculated for adult and pediatric ARVs, HIV lab products, ACTs, and malaria rapid diagnostic tests. Planned quantities are drawn from an aggregation of country supply plans submitted in the prior quarter, including only the quantities that are forecasted to be procured through GHSC-PSM. Actual quantities are derived based on the requested delivery dates for products included in customer ROs submitted to ARTMIS.
A06b	Absolute percent forecast error, with variants annual absolute percent error and forecast bias	Absolute value of the differences between the actual quantities with requested delivery dates during the quarter minus the quantities planned for delivery according to the global demand forecast	Sum of the actual quantities with requested delivery dates during the quarter	ARTMIS, Country Supply Plans, PPMR, other sources	Quarterly	Forecast error is currently calculated for condoms and contraceptives. Forecasted or planned quantities are drawn from the GHSC-PSM global demand forecasts for each product, which are based on an aggregation of country supply plans submitted in the prior quarter and additional inputs, such as country order history, data from coordinated planning groups, and global market dynamics indicators. Actual quantities are derived based on the requested delivery dates for products included in customer ROs submitted to ARTMIS.

Warehouse Indicators

Indicator Code	Name	Numerator	Denominator	Data Source(s)	Reporting frequency	Other Info
A04	Inventory turns (average number of times inventory cycles through GHSC-PSM controlled global facilities)	Total ex-works cost of goods distributed from GHSC-PSM-controlled global inventory stocks (in USD) within the fiscal year	Average monthly inventory balance (in USD)	Inventory extract	Annual	
A08	Average percentage of shelf life remaining for warehoused commodities, weighted by the value of each commodity's stock (product at risk percentage)	Percentage of shelf life remaining at the end of the quarter, weighted by value of commodities, summed across all products	Total value of commodities, summed across all products, at the end of the quarter	Inventory extract	Quarterly	Shelf life requirements vary by country and by product.

Indicator Details

Check out the GHSC-PSM IDIQ M&E Plan for complete details on all our indicators.

3PL and Commodity Vendor Indicators

Indicator Code	Name	Numerator	Denominator	Data Source(s)	Reporting frequency	Other Info
A14a	Average vendor rating score - Commodity suppliers	Sum of all key vendor ratings	Number of key vendors from whom GHSC-PSM procured products/commodities during the quarter	ARTMIS	Quarterly	Scorecards are compiled on one-month lag, i.e. Q1 data represents vendor performance from Sept-Nov. Supplier OTIF is currently reported for high value and/or high risk suppliers. Only suppliers for which one or more order line items were fulfilled in this reporting period were included. All vendors are equally weighted in the overall score, regardless of procurement volume from each vendor.
A14c	Average vendor rating score - Freight forwarders	Sum of all key vendor ratings	Number of key vendors from whom GHSC-PSM procured freight forwarding services during the quarter	3PL scorecard	Quarterly	To allow complete data collection, freight forwarder scorecards are conducted on a one-month lag (i.e. Q1 data represents performance from Sept-Nov, rather than Oct-Dec). Overall score is weighted by delivery volume, such that vendors who deliver a greater number of shipments will have a relatively greater impact on the result.

Product Loss Indicators

Indicator Code	Name	Numerator	Denominator	Data Source(s)	Reporting frequency	Other Info
C07a	Percentage of product lost due to expiry while under GHSC-PSM control (product loss percentage)	Total value of product lost due to expiry during the quarter	Average inventory balance (in USD) during the quarter	Inventory reports	Quarterly	Expiries from the Regional Distribution Centers (RDCS) are presented in the GSC section of this report. Expiries that occur in warehouses that GHSC-PSM manages in countries are reported in the country-specific sections of this report.
C07b	Percentage of product lost due to theft, damage, or other causes, while under GHSC-PSM control (product loss percentage)	Total value of product lost due to theft, damage, or other causes during the quarter	For losses in transit: Total value (in USD) of product delivered during the quarter For losses in storage: Average inventory balance (in USD) during the quarter	GHSC-PSM Continual Improvement system reports	Quarterly	Product losses due to incidents are reported only after the actual value of the loss has been determined, which may be later than the quarter in which the incident took place or was first reported to GHSC-PSM Continual Improvement.

Indicator Details

Check out the GHSC-PSM IDIQ M&E Plan for complete details on all our indicators.

GHSC-BI&A Data Sharing Indicators

Indicator Code	Name	Numerator	Denominator	Data Source(s)	Reporting frequency	Other Info
C04	Percentage of required files submitted to GHSC-BI&A in the reporting period	Number of required files submitted to BI&A during the quarter	Total number of files required for submission to BI&A during the quarter	GHSC-BI&A File Submission dashboard	Quarterly	Data requirements, including file types, data elements, submission formats, and frequency, are governed by the BI&A Information Specification for Implementing Partners (the "Infospec"). Exceptions may be specified by USAID.
C05	Percentage of required files timely submitted to GHSC-BI&A in the reporting period.	Number of required files timely submitted to BI&A during the quarter	Total number of files required for submission to BI&A during the quarter	GHSC-BI&A File Submission dashboard	Quarterly	Data requirements, including file types, data elements, submission formats, and frequency, are governed by the BI&A Information Specification for Implementing Partners (the "Infospec"). Exceptions may be specified by USAID.
C06	Average percent variance between GHSC-PSM ARTMIS and GHSC-BI&A calculations of key supply chain indicators for Task Order 1	Absolute value of GHSC-BI&A Order Performance indicator value minus GHSC-PSM ARTMIS dashboard indicator value	GHSC-PSM ARTMIS indicator value	ARTMIS, GHSC-BI&A Order Performance dashboard	Quarterly	The two indicators used to asses this variance are: 1) on-time delivery, 2) count of order lines with ADDs in the current period

Indicator Details

Check out the GHSC-PSM IDIQ M&E Plan for complete details on all our indicators.

Total Landed Cost

Indicator Code	Name	Numerator	Denominator	Data Source(s)	Reporting frequency	Other Info
A05	Total Landed Cost (as a percentage of total value of commodities delivered to recipients)	Sum of all freight and logistics costs (in USD) paid by GHSC-PSM during the reporting period	Sum of the value of all commodities delivered to recipients during the reporting period	ARTMIS, Monthly Financial Statement	Semiannual	The project will also report a variant of this indicator that includes all HQ supply chain operations costs in the numerator. Quality assurance costs will be excluded from all task orders, as QA costs are not paid by GHSC-PSM for all task orders. A version of the indicator including QA costs will be reported for Task Order 2 only.

Global Advocacy Engagments

Indicator Code	Name	Numerator	Denominator	Data Source(s)	Reporting frequency	Other Info
C08	Number of global advocacy engagements in support of improved availability of essential health commodities	Number of global advocacy engagements in support of improved availability of essential health commodities	NA	Project work plans, narrative reports	Semiannual	

Indicator Details

Check out the GHSC-PSM IDIQ M&E Plan for complete details on all our indicators.

Delivery Impact Indicators

Indicator Code	Name	Numerator	Denominator	Data Source(s)	Reporting frequency	Other Info
NA	Number of ACT treatments delivered	Sum of ACT treatments delivered to countries, where a treatment is equal to one blister strip		ARTMIS	Quarterly	Includes malaria treatments delivered over the life of the project, with "full dose" based on WHO-recommended treatment guidelines. Specific medicines counted are limited to those used only for treatments, and not primarily as prophylaxis. Specifically, it includes Artemether/Lumefantrine, Artesunate/Amodiaquine, and Artenimol/Piperaquine formulas.
NA	Number of Couple Years Protection delivered	Total of contraceptive method units delivered to countries, multiplied by the couple-years protection conversion factors per method, summed across all contraceptive methods delivered.		ARTMIS and USAID/MEASURE CYP conversion factors	Quarterly	CYP is a standard indicator calculated by multiplying the quantity of each contraceptive method distributed by a conversion factor to yield an estimate of the duration of contraceptive protection provided per unit of that method. The CYP for each method is then summed for all methods to obtain a total CYP figure. CYP conversion factors are based on how a method is used, failure rates, wastage, and how many units of the method are typically needed to provide one year of contraceptive protection for a couple. The calculation takes into account that some methods, e.g., condoms and oral contraceptives, may be used incorrectly and then discarded, or that intrauterine devices (IUDs) and implants may be removed before their life span is realized. This GHSC-PSM measure includes all condoms, IUDs, and hormone (oral, injectable, and implantable) contraceptives delivered over the life of the project, with the conversion factor provided by USAID/MEASURE (see https://www.usaid.gov/what- we-do/global-health/family-planning/couple-years-protection-cyp for details).
NA	Person-years of ARV treatment delivered	Sum of the monthly treatment units of adult first-line ARV treatments delivered to countries , divided by 12		ARTMIS	Quarterly	This report only includes Adult Efavirenz/Lamivudine/Tenofovir (TLE, Nevirapine/Lamivudine/Zidovudine (NLZ), and Dolutegravir/Lamivudine/Tenofovir (TLD). Doses for calculating treatments are based on World Health Organization (WHO)-recommended guidelines. The calculation of patient-years allows GHSC-PSM to monitor effectiveness and efficiency by a standard unit.