

USAID GLOBAL HEALTH SUPPLY CHAIN PROGRAM
Procurement and Supply Management

FISCAL YEAR 2019
QUARTERLY REPORT

January 1, 2019 to March 31, 2019

With Semi-Annual Indicators for October 1, 2018 through March 31, 2019



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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

3PL	third-party logistics
4PL	fourth-party logistics
AAWG	Advocacy and Accountability Working Group
ACT	artemisinin-based combination therapy
ALu	artemether-lumefantrine
ART	Anti-retroviral therapy
ARV	Anti-retroviral
ASAQ	artesunate + amodiaquine
CARhs	Coordinated Assistance for Reproductive Health Supplies
CHAI	Clinton Health Access Initiative
CYP	couple-years of protection
DMPA	depot medroxyprogesterone acetate
DMPA-IM	depot-medroxyprogesterone acetate intramuscular
DRC	Democratic Republic of the Congo
EID	early infant diagnosis
eLMIS	electronic logistics management information system
ePOD	electronic Proof of Delivery
EPSA	Ethiopian Pharmaceuticals Supply Agency
EUV	end-use verification
FMoH	Ethiopia Federal Ministry of Health
FASP	forecasting and supply planning
FLARE	First-Line Reporting and Evaluation
FP	family planning
FP/RH	family planning/reproductive health
FY	fiscal year
GDSN	Global Data Synchronization Network
GHSC-BI&A	Global Health Supply Chain-Business Intelligence & Analytics
GHSC-PSM	Global Health Supply Chain Program-Procurement and Supply Management
GHSC-QA	Global Health Supply Chain-Quality Assurance
GHSC-RTK	Global Health Supply Chain-Rapid Test Kit
Global FP VAN	Global Family Planning Visibility and Analytics Network
HOTOSM	Humanitarian OpenStreetMap Team
IAPHL	International Association of Public Health Logisticians
IDIQ	indefinite delivery, indefinite quantity
IgM	immunoglobulin M
IUS	intrauterine system

LAC	Latin America and the Caribbean
LLIN	long-lasting insecticide-treated net
LMIS	logistics management information system
M&E	monitoring and evaluation
MCH	maternal and child health
MMD	multi-month dispensing
MNCH	maternal, newborn and child health
MOH	Ministry of Health
NMCP	National Malaria Control Program
NSPH	Burkina Faso National School of Public Health
OOS	out of specification
OTD	on-time delivery
OTIF	on-time, in-full delivery
PEPFAR	The U.S. President's Emergency Plan for AIDS Relief
PFSA	Pharmaceuticals Fund and Supply Agency (Ethiopia)
PLHIV	people living with HIV
PME WG	Performance Monitoring and Evidence Working Group
PMI	The U.S. President's Malaria Initiative
PPMR	Procurement Planning and Monitoring Report
PPMRm	Procurement Planning and Monitoring Report - malaria
PrEP	pre-exposure prophylaxis
PSI	Population Services International
Q	quarter
QA	quality assurance
QAMS	Quality Assurance Management System
QC	quality control
RDC	regional distribution center
RDT	rapid diagnostic test
RHSC	Reproductive Health Supplies Coalition
RTK	rapid test kit
SCOP	Supply Chain Operational Plan
SDP	service delivery point
SOH	stock on hand
SP	sulfadoxine-pyrimethamine
SP/AQ	sulfadoxine-pyrimethamine + amodiaquine
SSWG	Systems Strengthening Working Group
TB	tuberculosis
TLD	tenofovir/lamivudine/dolutegravir
TLE	tenofovir/lamivudine/efavirenz

TransIT	Transportation Information Tool
TTI	time temperature indicator
VMMC	voluntary medical male circumcision

Executive Summary

The 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 Fiscal Year 2019 (FY 2019) Quarter 2 (Q2). We describe here our work providing life-saving commodities and building efficient, reliable and cost-effective supply chains for delivering health products for the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR), the U.S. President’s Malaria Initiative (PMI), USAID’s voluntary family planning and reproductive health (FP/RH) program, and USAID’s maternal and child health (MCH) program, which equitably share the cost of the project.

Global Supply Chain

GHSC-PSM’s global supply-chain procurement and logistics activities and achievements are described in Section C.I. Highlights of our global supply-chain performance in Q2 appear below.

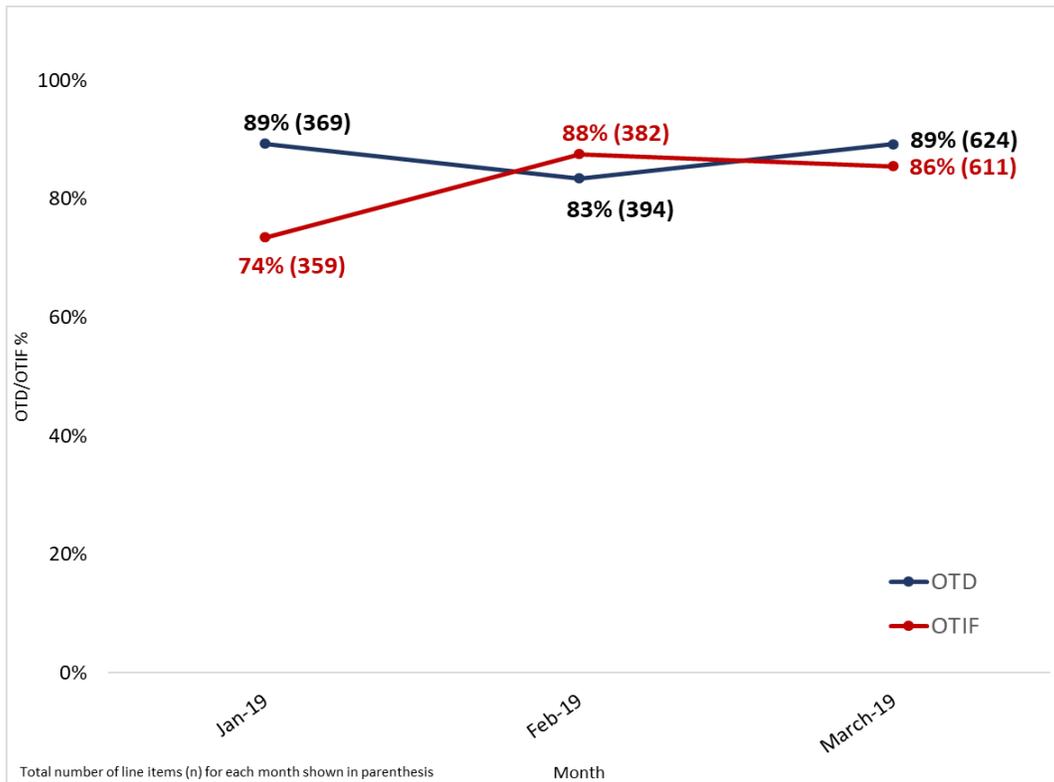
	Procured more than \$134.9 million in health commodities.
	Delivered more than \$149.1 million in health commodities.
	As shown in Exhibit I, achieved on-time delivery¹ (OTD) of 88 percent and on-time, in-full delivery (OTIF) of 83 percent , and the backlog of late orders dropped to 1.9 percent.

Q2 OTD rates were strong for all health areas: 89 percent for HIV; 93 percent for malaria; 85 percent for FP/RH; and 81 percent for maternal, newborn, and child health (MNCH) commodities, which exceeded the project’s overall quarterly target of 80 percent. GHSC-PSM continues to conduct root-cause analysis of late deliveries and to refine procurement and supply-chain processes to improve performance.

Strategic sourcing of health commodities continued to promote market health, reduce prices, and shorten lead times for a variety of products.

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

Exhibit I. OTD and OTIF Over the Quarter



Value to the U.S. Taxpayer and the U.S. Government’s International Health Programs

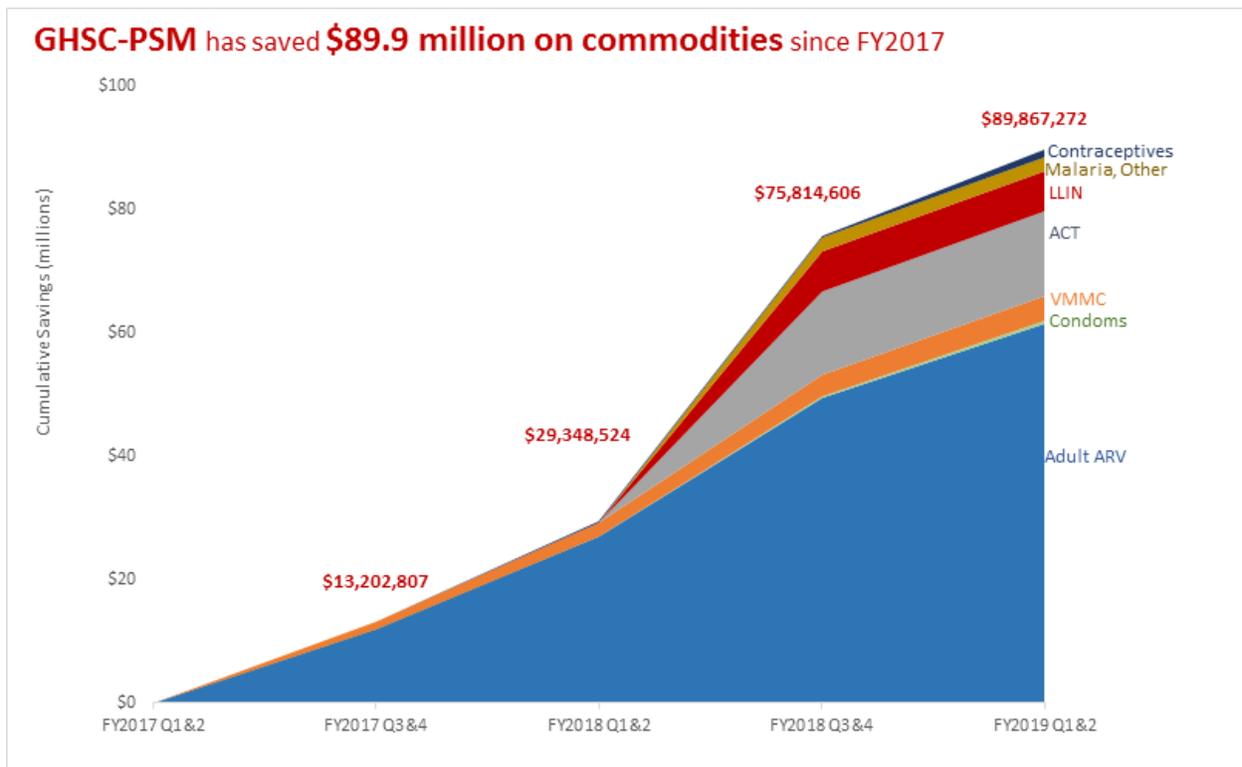
GHSC-PSM works to achieve best value for the U.S. taxpayer in all our efforts. In some cases, this means the project is saving money through lower costs. In others, *value* represents a combination of reasonable costs and other important benefits, such as timeliness, diversification of sources to reduce risk, and quality. Examples of excellent value through lower costs appear below.

Cost-savings on medicines and other health commodities

GHSC-PSM conducts detailed analysis to understand the markets for the medicines and health commodities that we procure and brings this knowledge to our negotiations with suppliers. Through careful negotiation of long-term contracts with suppliers, for major product groups only, the project saved \$14 million over the last six months, as shown in Exhibit 2².

² Please note that cost-savings are calculated based on orders placed in the period. Cost-savings values in those periods may be updated to reflect any subsequent changes to those orders.

Exhibit 2. GHSC-PSM Savings on Medicines and Other Health Commodities



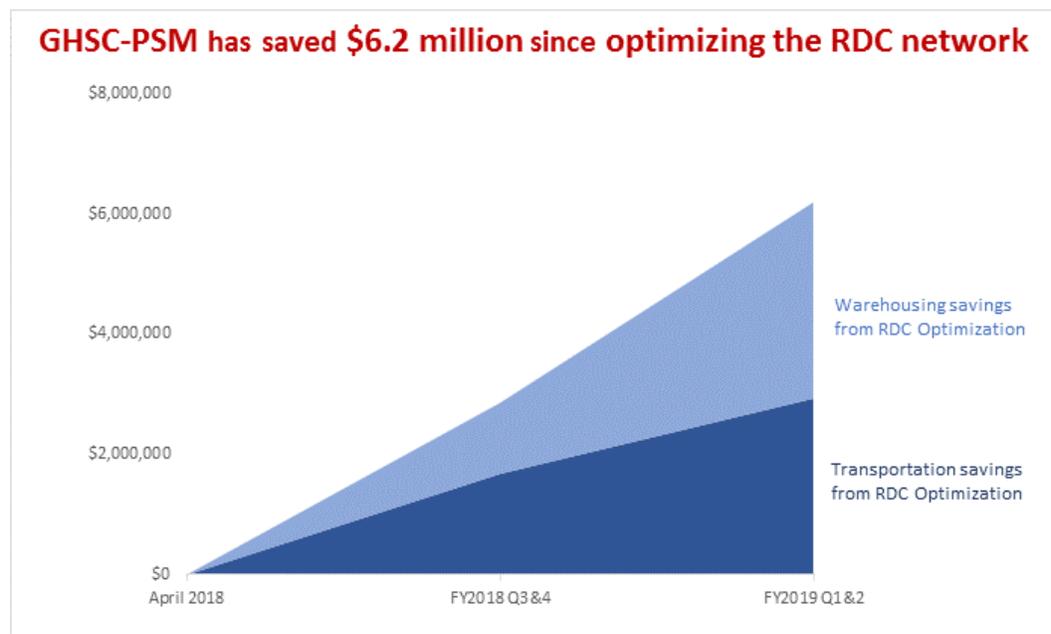
The life-of-project total for cost-savings on medicines and other health commodities is now \$89.9 million. To achieve long-term value and sustainability, GHSC-PSM achieved these cost-savings while working to ensure a return to suppliers that will maintain their interest in the market, while expanding the number of suppliers in many commodity categories so the U.S. Government can benefit from a competitive supplier base. (More information on this analysis appears in Section C1b.)

Cost-savings on logistics

GHSC-PSM has saved money on logistics (see Exhibit 3) through optimizing the project’s network of regional distribution centers. This generates:

- Warehousing savings from lower costs at the project’s three regional distribution centers. This report’s life-of-project cost-savings include the actual savings from the project’s new South African regional distribution center from the last two quarters. The savings there are 45 percent higher than we had projected because of the greater-than-expected usage of that facility.
- Transportation savings from shipping costs on actual commodities that moved through the three regional distribution centers, compared to what warehousing and shipping would have cost for those commodities under the previous five-warehouse model.

Exhibit 3. GHSC-PSM Savings on Logistics



Health Areas

GHSC-PSM provides procurement, supply-chain systems strengthening, and global collaboration support to the U.S. Government’s programs for HIV/AIDS, malaria, FP/RH, MNCH, and other emerging health threats. We provide highlights of the project’s achievements in the last quarter below.

HIV

GHSC-PSM continued to make significant contributions to PEPFAR’s life-saving agenda (see box).

The project is supporting the transition to use of tenofovir disoproxil fumarate, lamivudine, and dolutegravir (TLD) as the first-line anti-retroviral (ARV) therapy. By the end of Q2, the project had **delivered more than 15.2 million bottles of TLD** to 14 countries, with an on-time delivery rate of 96 percent.

GHSC-PSM also is supporting the dispensing of multiple months of ARVs to patients (multi-month dispensing). The project now has **higher-count (mostly 90-count) bottles on order**. Over time, the project estimates that the new multi-month dispensing packs of TLD will generate savings of more than \$1 million in product and transport costs, calculated via commodity and logistics cost-savings metrics.

Complementing the scale-up of TLD is the **drawdown of previous first-line treatment regimens**, which the project is monitoring and reporting to PEPFAR each month through the project’s supply-chain data visibility initiatives.



GHSC-PSM has delivered enough anti-retroviral therapy to provide more than **5.4 million patient-years of HIV treatment to date**.

This includes more than **1.3 million patient-years of TLD treatment delivered over the life of the project**.

To better ensure the distribution of the right quantities of HIV medicines and commodities (primarily ARVs) to health facilities to meet patient needs, GHSC-PSM continued its stock tracking, oversight, and planning initiative. In Q2, the project collected and reviewed site-level data from 17,499 facilities in 12 PEPFAR-supported countries. PEPFAR staff used these tools during their meetings to review the annual Country Operational Plans. Also, the project developed a new Country Diagnostics and Mitigation Plus tool to display information on stock on hand, average monthly consumption, months of stock available, and patient volume at sites.

To address shortages of **recommended pediatric ARVs**, GHSC-PSM has shared rigorous supply and demand analyses with global donors and met with suppliers to discuss expanding their capacity. In March, suppliers of optimized pediatric formulations confirmed their willingness to invest in increased manufacturing capacity.

GHSC-PSM worked on multiple fronts to **mitigate the global supply risk for male condoms** (for both HIV prevention and voluntary FP programs) this quarter, including by providing forecasts to suppliers, negotiating minimum supply commitments from suppliers, identifying potential alternative suppliers, and coordinating with other major global procurers, such as the United Nations Population Fund (UNFPA) and the social marketing organization Population Services International (PSI), to mitigate the shortage among condom programs globally.

The project worked closely with the USAID HIV team to develop a technical working group with the USAID tuberculosis (TB) team to address market challenges and ensure coordinated procurement strategies for **TB preventive therapy**.

To ensure state-of-the-art laboratory performance, GHSC-PSM updated its viral-load instrument survey in 11 countries to inform procurement decisions and efforts to optimize laboratory networks. The project helped the Republics of Cameroon, Haiti and Malawi develop sample referral maps to use in updating their national strategic plans for supporting viral-load scale-up. Key viral-load data now appear in a global viral-load dashboard that GHSC-PSM and U.S. Government stakeholders can use to **plan more accurately for the scale-up of viral-load monitoring**.

Malaria

GHSC-PSM works to help PMI reduce malaria deaths and substantially decrease malaria morbidity. In Q2, GHSC-PSM achieved 93 percent OTD for malaria commodities. The project delivered enough anti-malarials³ to treat millions of malaria infections (see box).

Cyclone Idai wrought widespread devastation in the Republics of Malawi, Mozambique and Zimbabwe, three countries supported by GHSC-PSM. The impact of destroyed logistics infrastructure was magnified by the increased risk of malaria from all the rain and standing water. The project **responded to the Cyclone Idai disaster** by quickly assessing damages and loss of product, responding to emerging and critical needs, and broadly sharing supply-chain data with all parties



GHSC-PSM has delivered enough anti-malarials to **treat 162.8 million infections to date.**

This includes **treatment for 22.6 million infections in Q2.**

³ Includes malaria treatments delivered with “full dose” based on WHO-recommended treatment guidelines. Specific medicines are limited to those used only for treatments, and not primarily as prophylaxis. Specifically, they include only artemether/lumefantrine and artesunate/amodiaquine formulas this quarter.

that were mobilizing to deal with the emergency. Specifically, to address the threat of an increase in mosquitoes, the project delivered 182,700 long-lasting insecticide-treated nets (LLINs) to Beira, Mozambique; 86,000 LLINs to Malawi; and 160,000 LLINs to Zimbabwe.

The project reached several important strategic sourcing milestones in Q2. We issued awards for the **first fixed-price long-term agreements for artemisinin-based finished pharmaceutical products** and executed an **order allocation for rapid diagnostic tests (RDTs)** that works to achieve overall best value and long-term market health for that product.

The project worked to **resolve a quality problem with the LLIN supply**. First, the project worked to understand the root cause of the problem to determine how to remedy it and prevent its reoccurrence. GHSC-PSM also assessed the market for LLIN supply and, by using a customized mathematical optimization model, assessed scenarios to inform LLIN sourcing strategies. These strategies were reflected in a solicitation for LLINs that was issued this quarter.

GHSC-PSM started implementing its sulfadoxine-pyrimethamine + amodiaquine (**SP/AQ**) **prepositioning strategy** to reduce the time between order and delivery. We successfully delivered the first two shipments of SP/AQ from the regional distribution center in the Kingdom of Belgium, with deliveries on time and well ahead of the seasonal malaria chemoprevention campaign in the Republic of Guinea, the destination country.

Voluntary Family Planning and Reproductive Health



GHSC-PSM has delivered enough contraceptives to provide **44.7 million couple-years of protection (CYP) to date**.

This includes **3.7 million couple-years of protection in Q2**.

GHSC-PSM support for voluntary family-planning/reproductive-health programs achieved several major milestones in Q2.

This quarter, more than a year of collaboration and effort culminated in the **launch of the Global Family Planning Visibility and Analytics Network (Global FP VAN)**. The Global FP VAN is a shared platform that captures and uses data on the contraceptive supply chain from multiple donors, procurers and countries to support coordinated decision making and improve the allocation of limited health resources. GHSC-PSM provided key support in developing and testing the Global FP VAN throughout the development process and is now contributing order/shipment data for project-supported countries as well as supply plan data for the

two pilot countries, Malawi and the Federal Republic of Nigeria.

GHSC-PSM continued to play a **leadership role in the global FP/RH community**, including by chairing the Systems Strengthening Working Group of the Reproductive Health Supplies Coalition (RHSC) at the coalition's annual General Membership Meeting.

The project, with USAID, reviewed the FP/RH five-year strategic sourcing strategy. Among other achievements, this quarter, the project **delivered the first orders of generic injectables** (depot medroxyprogesterone acetate, intramuscular), overcoming a sustained global shortage of these high-demand products. Also, the project, in collaboration with FHI 360, convened a working session with stakeholders to discuss increasing access to, and enhancing market health for the **hormonal intrauterine system (hormonal IUS)**. Together, we are working toward achieving an affordable public-sector price for this important contraceptive.

Maternal and Child Health



In March, WHO, UNICEF and UNFPA announced the release of a joint statement on the need to procure quality-assured oxytocin and maintain it in the cold chain throughout the supply chain.

GHSC-PSM works to end preventable child and maternal deaths by increasing access to quality-assured MNCH medicines and supplies and by providing global technical leadership on MNCH commodities.

This quarter, long-term project efforts to improve the availability of quality-assured oxytocin to prevent postpartum hemorrhage **culminated in an important joint statement by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF) and UNFPA** (see box).

The project continued efforts to understand supply-chain challenges for MNCH products. GHSC-PSM developed tools to use in an

assessment of supply chain-induced constraints to reducing neonatal mortality rates in Malawi. The project also finalized and shared a rapid-assessment protocol to **identify challenges and barriers that private-sector wholesalers and distributors face** in providing quality-assured MNCH products through the health supply chain. Rapid assessments will be conducted in Mozambique and the Republic of Zambia in the near future.

Health Systems Strengthening

GHSC-PSM continues to manage 34 country or regional field offices. These offices, supplemented by headquarters-based experts, provide wide-ranging technical assistance to strengthen national health supply chains.

USAID's investment in supply-chain systems strengthening through the project is yielding important innovations and positive results on many fronts. For example, the project continues to **advocate for and develop pre-service trainings to put countries on a path to self-reliance**. This quarter, GHSC-PSM further developed supply-chain curricula for universities in the Republic of Angola, Burkina Faso and the Republic of Burundi. The project received **114 supply plan updates** from countries across health programs, which provide us and other procurers with forward-looking views of demand for 18 months to facilitate timely procurement planning. Support to countries' logistics management information systems (LMIS), warehousing and distribution systems, and procurement processes continued in many countries, as did efforts to strengthen critical aspects of the supply-chain enabling environment. The project provided training to 3,221 people in topics that range from warehouse management to forecasting and supply planning.

Global Collaboration

In addition to the achievements with others outlined above, the project achieved a major milestone in advancing the adoption of global standards for identifying, labeling and exchanging data on health products. In Q2, the project finalized and published the **Global Standards Technical Implementation Guideline for Global Health Commodities**, endorsed jointly by major donors and procurement agents (see box on the next page). **Wide endorsement** of this document represents an important milestone in harmonizing procurement across the community, sends a strong signal to suppliers about the demand for these standards, and paves a path to a future where countries can rely on a standardized set of data

to enable automation of supply-chain processes to improve efficiencies and the quality of data they use for decisions.

The pages that follow provide additional detail on strides taken by GHSC-PSM this quarter to ensure the continuous availability of health commodities to the people who need them around the world.

Global Support for Global Standards

USAID's and GHSC-PSM's sustained efforts to promote global standards in product identification, labeling and data exchange led to joint endorsement of the new *Global Standards Technical Implementation Guideline for Global Health Commodities* by key donors and procurement agents.



INTRODUCTION

A1. Background

The USAID GHSC-PSM project works to ensure uninterrupted supplies of quality medicines and other health 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:

- The U.S. President's Emergency Plan for AIDS Relief to help reach the Joint United Nations Programme on HIV/AIDS (UNAIDS) global 90-90-90 HIV/AIDS testing, treatment and viral-load suppression targets.
- The U.S. President's Malaria Initiative to reduce malaria deaths and substantially decrease malaria morbidity, toward the long-term goal of elimination.
- USAID's Family Planning and Reproductive Health program to ensure that key reproductive-health commodities are available for safe and reliable voluntary family planning.
- USAID's maternal and child health program to prevent child and maternal deaths.
- Other public health threats as they emerge, with support for Zika at this time.

The project procures and delivers medicines and other health commodities, offers comprehensive technical assistance (TA) to strengthen national supply-chain systems, and provides global supply-chain leadership to ensure that life-saving health supplies reach those most in need. In Q2, the project procured commodities or provided TA to 59 countries (see Exhibit 4 on the following page).

A2. About This Report

We are pleased to present our performance report for fiscal year 2019 quarter 2 (January 1 through March 31, 2019). 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** (HIV/AIDS, malaria, family planning and reproductive health (FP/RH), maternal, newborn and child health (MNCH) and other public health threats).
- Section C describes activities under each of the **three main technical objectives** (global commodity procurement and logistics, systems strengthening, and global collaboration), including key indicator results for those objectives.
- Annex A provides **performance and context indicators** for January 1 through March 31, 2019 (quarterly indicators) and for October 1, 2018 through March 31, 2019 (semiannual indicators).

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

Exhibit 4. Countries for Which GHSC-PSM Procured Commodities or Provided TA in Q2

	Proc.	TA		Proc.	TA
AFRICA:			ASIA:		
Republic of Angola	•	•	Islamic Republic of Afghanistan	•	
Republic of Benin	•		People's Democratic Republic of Bangladesh	•	
Republic of Botswana	•	•	Kingdom of Cambodia		•
Burkina Faso	•	•	Republic of Indonesia		•
Republic of Burundi	•	•	Republic of Kazakhstan	•	
Republic of Cameroon	•	•	Kyrgyz Republic	•	
Republic of Côte d'Ivoire	•		Lao People's Democratic Republic	•	
Democratic Republic of the Congo (DRC)	•		Republic of the Union of Myanmar	•	•
Federal Democratic Republic of Ethiopia	•	•	Federal Democratic Republic of Nepal	•	•
Republic of Ghana	•	•	Islamic Republic of Pakistan		•
Republic of Guinea	•	•	Independent State of Papua New Guinea	•	
Republic of Kenya	•	•	Republic of Tajikistan	•	
Kingdom of Lesotho		•	Kingdom of Thailand	•	•
Republic of Liberia	•	•	Socialist Republic of Viet Nam	•	•
Republic of Madagascar	•		LATIN AMERICA AND CARIBBEAN:		
Republic of Malawi	•	•	Barbados		•
Republic of Mali	•	•	Dominican Republic	•	•
Islamic Republic of Mauritania	•		Republic of Ecuador		•
Republic of Mozambique	•	•	Republic of El Salvador		•
Republic of Namibia	•	•	Republic of Guatemala		•
Republic of the Niger	•	•	Republic of Haiti	•	•
Federal Republic of Nigeria	•	•	Republic of Honduras		•
Republic of Rwanda	•	•	Jamaica	•	•
Republic of Senegal	•		Republic of Panama	•	•
Republic of Sierra Leone	•	•	Republic of Peru	•	•
Republic of South Sudan	•	•	Republic of Suriname	•	•
Kingdom of Swaziland (eSwatini)	•	•	OTHER:		
United Republic of Tanzania	•		Ukraine	•	
Republic of Togo	•		Republic of Yemen	•	
Republic of Uganda	•	•			
Republic of Zambia	•	•			
Republic of Zimbabwe	•	•			

PROGRESS BY HEALTH AREA

In this section, we summarize GHSC-PSM's support for HIV/AIDS, malaria, FP/RH, MNCH and other public health threats over the last quarter.

BI. HIV/AIDS

	GHSC-PSM has delivered enough ARVs to provide 5.4 million patient-years of HIV treatment⁴ over the life of the project , including more than 700 thousand patient-years of treatment this quarter .
	To date, GHSC-PSM had delivered more than 15.2 million bottles of TLD to 14 countries , which would provide approximately 1.3 million patient-years of treatment .
	38 countries procured HIV/AIDS medicines and commodities , and 32 countries received health supply-chain systems strengthening with HIV/AIDS funding this quarter.
	GHSC-PSM improved product data visibility for HIV medicines and other health commodities in 17,499 health facilities in 12 PEPFAR-supported countries.

GHSC-PSM supports PEPFAR's goal of controlling the HIV/AIDS epidemic by procuring and delivering medicines and other health commodities⁵ to prevent infection and treat people living with HIV (PLHIV), including scaling up viral-load testing to monitor treatment efficacy for PLHIV. GHSC-PSM is also implementing data visibility initiatives that support appropriate procurement and distribution of ARVs to link treatment needs with the necessary commodities.

⁴ This is calculated based on deliveries of adult Dolutegravir/Lamivudine/Tenofovir (TLD), Efavirenz/Lamivudine/Tenofovir (TLE), and Nevirapine/Lamivudine/Zidovudine (NLZ). Doses for calculating treatments are based on WHO-recommended guidelines.

⁵ GHSC-PSM procured medicines and commodities for the following countries this quarter: AFRICA: Angola, Botswana, Burkina Faso, Burundi, Cameroon, Côte d'Ivoire, Democratic Republic of the Congo (DRC), Ethiopia, Ghana, Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, South Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe; LATIN AMERICA AND THE CARIBBEAN (LAC): Dominican Republic, Haiti, Jamaica, Panama, Peru, Suriname; ASIA: Burma, Nepal, Papua New Guinea, Vietnam, Kazakhstan, Kyrgyzstan, Tajikistan, Ukraine

Supporting PEPFAR's HIV Prevention Agenda

Pre-exposure prophylaxis

Multiple clinical trials have shown that daily, oral pre-exposure prophylaxis (PrEP), using a combination of the ARV medicines tenofovir and emtricitabine, dramatically reduces the risk of HIV infection for people who take prophylaxis as directed. GHSC-PSM is supporting countries as they continue to scale up PrEP under special initiatives such as PEPFAR's Determined, Resilient, Empowered, AIDS-free, Mentored and Safe (DREAMS) Partnership for adolescent girls and young women as well as for other key populations. This quarter, GHSC-PSM met with USAID to discuss procurement of an innovative product to help reach difficult-to-reach populations in Zimbabwe. The product, called V for PrEP, is a kit that takes a human-centered approach to increase demand and adherence to oral tablets among high-risk adolescent girls and young women in Africa. Specifically, the V kit contains a reversible makeup bag, a pill-carrying case for the PrEP medicine that resembles a tube of lipstick or balm, a label sticker that can be applied to a larger pill bottle, a loyalty card, and a box for the pill bottle, all of which increase discretion for young women to facilitate their uptake of the medicine. The kit will not contain actual PrEP product.

Condoms

To efficiently manage condom procurement, given that condoms are key commodities for both family planning and HIV prevention, GHSC-PSM developed a standardized procurement management process for all condom orders. Under USAID's technical direction, countries use a forecasting algorithm that addresses both family-planning and HIV-prevention program needs. This quarter, the project received 10 supply plans for condoms that incorporate this approach.

An issue with a condom supplier created a global supply risk for this important product. GHSC-PSM took aggressive, targeted steps to analyze country demand, provide improved visibility to suppliers and identify alternative suppliers. Specifically, the project:

- Provided supplier-specific forecasts
- Negotiated increased minimum supply commitments for GHSC-PSM in 2019
- Collaborated closely with the GHSC-Quality Assurance (GHSC-QA) project (implemented by FHI 360) to identify potential alternative suppliers
- Coordinated with USAID and other key procurers, including UNFPA and Population Services International, to mitigate any negative impact on condom programs globally

Also in Q2, the project reported on a study of major procurers' packaging for condoms. (See Section B3 for additional detail.) These findings and upcoming discussions with manufacturers and upstream stakeholders will inform recommendations for harmonization of packaging, which could increase supply-chain efficiency.

Drugs and Commodities Procured for HIV/AIDS Programs

- ARVs
- Diagnostics
- Essential medicines
- Injectable anesthetics
- Laboratory reagents
- Male and female condoms
- Personal lubricants
- Voluntary medical male circumcision (VMMC) kits

HIV/TB Prevention and Treatment

Worldwide, TB is one of the leading causes of death among PLHIV. TB occurs more often and is more severe among PLHIV because of their weakened immune systems.

In support of PEPFAR's 2019 country operational planning, GHSC-PSM provided countries with unit price forecasts so they could budget and plan for medicines to prevent TB in PLHIV. Also, GHSC-PSM worked closely with the USAID HIV team to develop a technical working group, in partnership with the USAID TB team, to address market issues and ensure coordinated procurement strategies. In March 2019, GHSC-PSM also released a request for information to better understand manufacturers' capacity for supporting scale-up of TB preventive therapy interventions and to inform procurement strategies for this growing category of supplies.

Supporting First 90: Testing

GHSC-PSM actively supports rapid test kit (RTK) availability to reach the first 90, HIV diagnosis. GHSC-PSM leadership meets regularly with the GHSC-RTK project (implemented by Remote Medical International) to get updates on its RTK procurements, to ensure a smooth transfer of country orders to GHSC-RTK, and to coordinate GHSC-PSM field office facilitation of orders and deliveries. GHSC-PSM helps countries forecast and quantify the number of RTKs needed and shares countries' 18-month RTK procurement plans with GHSC-RTK. Finally, GHSC-PSM collects and manages data on RTK stock status at the central and regional levels and on planned deliveries from all sources in its central and warehouse-level stock reporting initiative. The project is tracking and triangulating data on RTKs as part of the site-level data activity.

Supporting Second 90: Treatment

GHSC-PSM coordinates with other global procurers on high-demand or difficult-to-source ARVs for public procurement by participating in the ARV Procurement Working Group's quarterly calls. GHSC-PSM also participated in an annual technical meeting with USAID, UNITAID, the Global Fund, Clinton Health Access Initiative (CHAI), WHO and others to review the group's core key performance indicators and to assess strategic initiatives. GHSC-PSM was then invited to participate in a strategy group to address market issues for medicines used in treating and preventing opportunistic infections for HIV patients, with work to launch in FY 2019 Q3.

TLD transition

To help achieve HIV treatment goals, GHSC-PSM continued to support PEPFAR countries' planned transition to TLD, the preferred first-line ARV (see box). The project delivered TLD for nine countries this quarter, including first-time deliveries to Burundi and Zimbabwe. GHSC-PSM communicated regularly with country counterparts and suppliers to balance country demand with manufacturing capacity and to ensure timely delivery. This quarter, GHSC-PSM began procuring 90-count bottles of TLD to facilitate multi-month dispensing (see below).

The project also worked closely with countries to support scale-up of their use of TLD and monitored the drawdown of legacy ARVs. GHSC-PSM ensured tight coordination with USAID on all facets of this dynamic transition through weekly first-line ARV transition meetings, monthly transition reports, and reviews of the First-Line ARV Reporting and Evaluation (FLARE) reports.

Scaling Up Supply of TLD

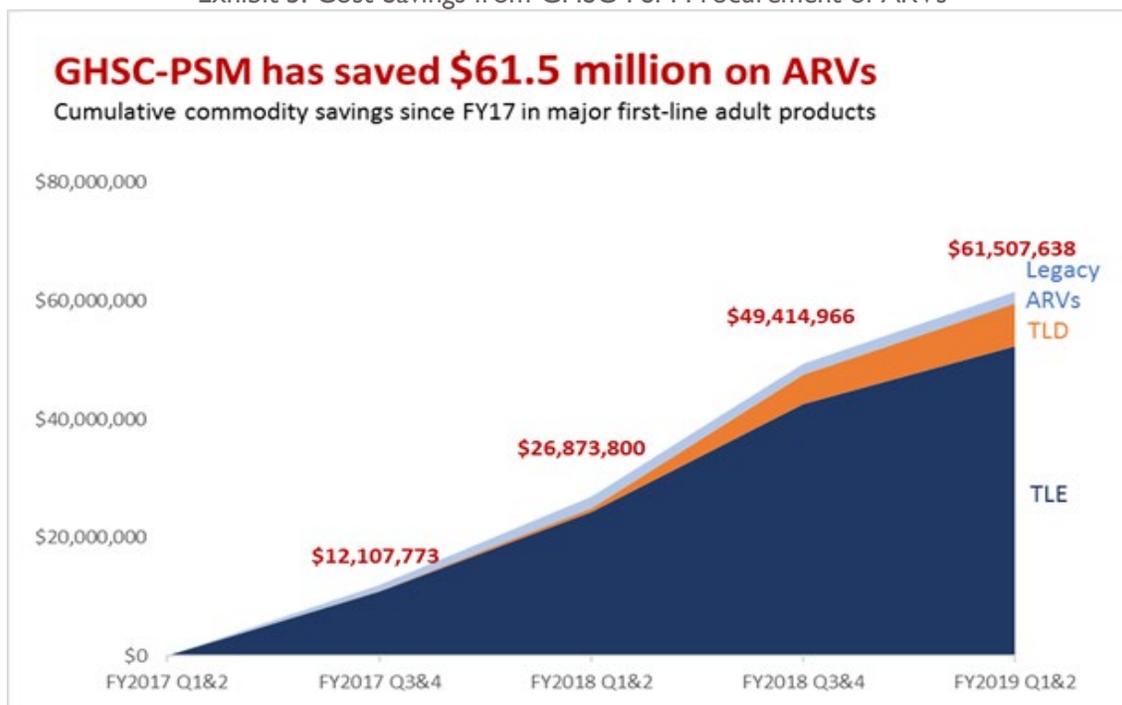
By the end of Q2, the project had delivered more than **15.2 million** units of TLD to **14** countries. This is enough to provide almost **1.3 million patient-years of TLD treatment**.

GHSC-PSM has achieved 96 percent on-time delivery of TLD during the transition due largely to the project’s strategy of maintaining inventory of TLD in regional distribution centers in advance of country-specific orders. The project has been able to draw down on these pre-positioned medicines over the last three quarters as each country initiated the transition to TLD to ensure timely delivery.

Cost-savings on ARVs

GHSC-PSM’s strategic sourcing activities generate significant cost-savings for PEPFAR and the countries and people served by its HIV programs. As shown in Exhibit 5, for ARVs alone, GHSC-PSM has saved \$61.5 million over the life of the contract, when compared to established baseline prices for each commodity.

Exhibit 5. Cost-Savings from GHSC-PSM Procurement of ARVs



Legacy ARV drawdown

To support efficient transition to newer regimens, such as TLD, and minimize vestiges of older first-line ARV regimens (legacy ARVs), GHSC-PSM manages the FLARE initiative. Each month, GHSC-PSM’s home office, in coordination with field office staff, collects, reviews and compiles monthly inventory data from 52 warehouses in PEPFAR priority countries for all first-line ARVs.

Multi-month dispensing

Multi-month dispensing (MMD), or dispensing several months rather than one month of treatment at a time, reduces the number of visits patients must make to health facilities to pick up their medicines, leading to better adherence and viral-load suppression. MMD also reduces clinician workload at facilities, and the increased packing density possible with multi-month bottles reduces logistics costs. GHSC-PSM now has higher-count bottles of TLD on order to support widespread adoption of MMD in 2019.



Pharmacist intern Johanna Iyambo prepares to dispense a three-month supply of ARV medication to a patient in Namibia. Photo credit: Paulina Moses/GHSC-PSM

Pediatric ARVs

USAID and GHSC-PSM are working with countries to align pediatric ARV demand with the *WHO 2018 Optimal Formulary and Limited Use List for Paediatric ARVs*. A limiting factor has been suppliers' production capacity of recommended ARVs. Global donors have been working with suppliers to increase capacity and to help transition countries from legacy pediatric ARVs to the currently recommended optimum formulations. GHSC-PSM has developed rigorous supply and demand analyses to support discussions between global donors and suppliers about building up supplier capacity. In March, suppliers of improved pediatric formulations confirmed their willingness to invest in increased manufacturing capacity.

GHSC-PSM hosted a WHO ARV forecasting meeting in Q2. The largest ARV procurers and donors and other stakeholders participated to share their knowledge about this market. GHSC-PSM presented an analysis of the pediatric market for a specific formulation that would need to be closely monitored by all stakeholders to make sure that its expected demand is met by the few manufacturers available.

Supporting Third 90: Viral-Load Testing

GHSC-PSM continued to support countries in reaching their viral-load testing and early infant diagnosis (EID) targets, including building capacity for procuring viral-load testing reagents, specimen collection consumables, and testing equipment. Nine countries procured 1.5 million viral-load tests, a 50 percent increase over last quarter. GHSC-PSM continued to work with in-country partners to strengthen laboratory forecasting and supply planning for viral-load scale-up, including training the national quantification team in the Democratic Republic of the Congo on the Forlab tool.

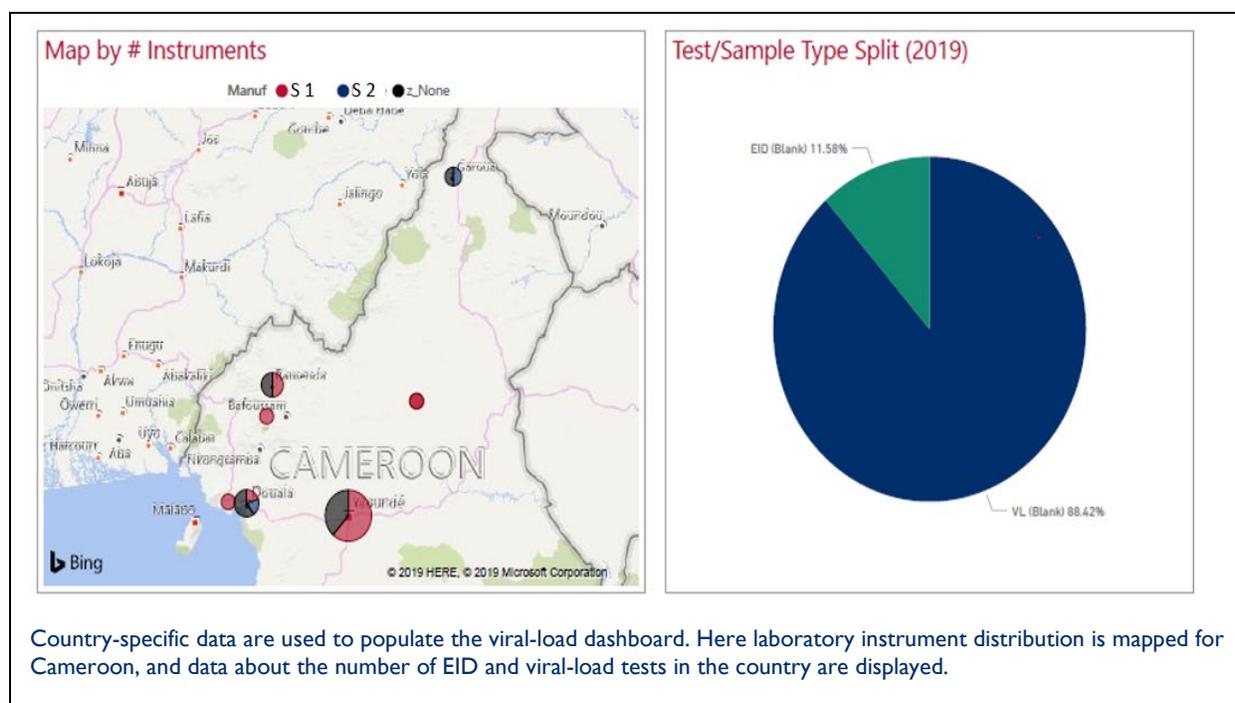
The project conducted the viral-load instrument survey in 11 countries to inform procurement decisions and to determine if additional instrument capacity is needed before further investments are made. These survey data support laboratory network optimization efforts, which should lead to cost-savings and increased efficiency through consolidation or reallocation of laboratory equipment. The project also assisted Cameroon and Malawi develop sample referral maps to update their respective national strategic plans for supporting viral-load scale-up.

GHSC-PSM developed the global viral-load dashboard to analyze and visualize country viral-load scale-up, displaying information on national testing targets, demand, pricing, national capacity, and geographic information system (GIS) locations of laboratories based on prior optimization exercises. The visibility provided by the dashboard informs and helps GHSC-PSM and U.S. Government stakeholders more accurately plan for viral-load scale-up. (See screenshot of dashboard on next page.)

GHSC-PSM continued to develop the curriculum for inventory management of laboratory commodities at national and site levels. This will promote and strengthen inventory management and stock-level reporting to improve laboratory testing and should help decrease stock-outs of viral-load commodities.

Stock Tracking, Oversight and Planning for HIV/AIDS

This quarter, GHSC-PSM carried out multiple efforts to support USAID’s vision for increased inventory stock visibility at all levels for HIV medicines and commodities.



Country-specific data are used to populate the viral-load dashboard. Here laboratory instrument distribution is mapped for Cameroon, and data about the number of EID and viral-load tests in the country are displayed.

Site-level data visibility in 12 countries for 17,499 health facilities

Each month, the project collects and reviews site-level data covering 17,499 facilities in 12 countries⁶ coming from 400+ Excel files with over 800,000 data lines. The team has established a framework to receive, process, and standardize monthly data on site-level stocks of ARVs, RTKs, condoms, and several tuberculosis products from these 12 countries, and generated user-friendly visualizations and analyses. These analyses are provided in the Country Diagnostics and Mitigation Plus (CDM Plus) Tool, which displays information on stock on hand, average monthly consumption, months of stock available,

⁶ GHSC-PSM is collecting site-level data from Angola, Botswana, Cameroon, Haiti, Lesotho, Malawi, Mozambique, Namibia, Nigeria, Uganda, Zambia and Zimbabwe.

and patient volume at these sites. GHSC-PSM also is piloting triangulation of logistics and PEPFAR patient data in several countries to determine if patients are receiving medicines as expected.

HIV commodity data visibility at 52 central warehouses

Each month, GHSC-PSM reviews central and warehouse-level inventory data for more than 20 HIV medicines and commodities in 15 PEPFAR countries to identify stock imbalances and, where possible, to help mitigate imbalances by raising awareness, identifying opportunities to shift GHSC-PSM shipments, and/or supporting redistribution within a country; this helps to avoid rationing and waste. GHSC-PSM also uses these data for reports to USAID and PEPFAR on the status of the first-line ARV drawdown, the transition to TLD and tenofovir disoproxil fumarate, lamivudine, and efavirenz (TLE), and HIV commodity stock-out risk.

GHSC-PSM provides detailed reviews of country data through this central and warehouse-level reporting initiative and is helping improve display of shipment data for almost 70 products across 17 countries. Since November 2018, GHSC-PSM has reviewed countries' requests for donor actions and shared these with USAID, which then coordinates actions with the Global Fund through the Coordinated HIV/AIDS Supplies Group.

Country Support

The HIV task order funds supply-chain systems strengthening in 32 countries⁷. One example of our work this quarter is procurement of a containerized biological safety level 3 (BSL-3) modular TB laboratory for the National Tuberculosis Reference Laboratory in Botswana, where TB causes more than 40 percent of deaths in PLHIV. This is the only TB reference laboratory serving the country's 28 health districts. The modular TB laboratory has a reception area, anteroom, BSL-3 laboratory, and plant room. It is fully fitted with a biosafety cabinet, GeneXpert, microscopy, and mycobacteria growth indicator tube (MGIT™) equipment. GHSC-PSM partnered with the Ministry of Health and Wellness to provide water, electrical service (including a backup power generator) and sewer connection to the laboratory. Following installation of the modular lab, an end-user training was conducted for medical laboratory scientists and biomedical engineers. The new lab is expected to increase in-country capacity to diagnose TB and other bacterial infections.

In Honduras, GHSC-PSM and the Ministry of Health (MOH) work to assess and improve warehouse conditions and inventory management practices and procedures through quarterly clinic visits. Together they developed standardized clinic visit evaluation criteria and established clear standard operating procedures. These have been key to improving clinic adherence to best practices and to assessing clinic performance. After the implementation of these criteria and procedures, the three main hospitals providing ARV treatment in the country's Tegucigalpa region received an average compliance score of 88 percent during the Q2 visits.

⁷ The countries for which GHSC-PSM provides technical assistance with HIV funding are: AFRICA: Angola, Botswana, Burundi, Cameroon, Eswatini, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Mali, Mozambique, Namibia, Nigeria, Rwanda, South Sudan, Uganda, Zambia, Zimbabwe; LAC: Barbados, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Panama, Suriname; ASIA: Burma, Cambodia, Indonesia, Vietnam

B2. Malaria

	The project has delivered enough anti-malarials to treat nearly 162.8 million infections⁸ , including 22.6 million in Q2.
	30 countries procured malaria medicines and commodities and 23 countries received health supply-chain systems strengthening with malaria funding under the contract this quarter.
	The project responded to the Cyclone Idai disaster by supporting malaria activities, including delivering more than 400,000 LLINs to affected countries.
	GHSC-PSM provided an uninterrupted supply of malaria medicines and commodities in a timely manner with an OTD rate of 93 percent and an OTIF rate of 92 percent .

Under the U.S. President’s Malaria Initiative (PMI)-funded malaria task order, GHSC-PSM supplies life-saving prevention and treatment medicines, rapid diagnostic tests (RDTs), and LLINs. We offer partner countries new approaches to strategic planning, logistics, data visibility, analytics, and capacity building. We also provide technical guidance to strengthen global supply, demand, financing, and the introduction of new malaria medicines and commodities.

Commodity Sourcing, Procurement and Delivery

GHSC-PSM’s provision of malaria medicines and commodities this quarter entailed strategic sourcing, procurement, QA, deliveries, and support for transferring/redistributing stocks, as summarized below.

Strategic sourcing

Strategic sourcing of malaria medicines and commodities in Q2 focused on:

- Completing the evaluation of offers for artemisinin-based finished pharmaceutical products. GHSC-PSM is currently engaged in contract negotiations and awarding contracts to the selected suppliers.
- Posting a request for proposals for supply of LLINs, including an option to provide vendor-managed inventory services. The new solicitation responds to fundamental changes in the market in terms of suppliers, product appropriateness and demand for next generation products.

⁸ This is calculated based on deliveries of medicines that are used only for treatment (rather than those used primarily for prophylaxis), specifically, Artemether/Lumefantrine and Artesunate/Amodiaquine. Calculations use a “full dose” of treatment per WHO-recommended treatment guidelines.

Procurements and deliveries

Since the start of the project, GHSC-PSM has procured malaria medicines and commodities for 30 countries (all PMI countries including two USAID-designated malaria countries)⁹. Over the life of the project, GHSC-PSM has procured \$443.8 million in malaria commodities, including \$21.2 million this quarter¹⁰.

Second RDT allocation. GHSC-PSM executed its second RDT allocation strategy during the quarter. This strategy entails country-agnostic, fixed-price contracts and allocates orders based on overall best value and long-term market health. Benefits include:

- Cost-savings
- Less price variation country-to-country and order-to-order
- Supply diversity
- More streamlined and coordinated order fulfillment process that avoids bottlenecks with suppliers and throughout the project's end-to-end supply chain

Delivery timeliness. GHSC-PSM achieved OTD of 93 percent and OTIF of 92 percent for malaria commodities this quarter. In January, GHSC-PSM achieved 100 percent OTD for 93 delivery lines of malaria commodities.

Response to emergency orders to reduce stock-outs. GHSC-PSM quickly responded to emergency orders for artemisinin-based combination therapies (ACT) and sulfadoxine/pyrimethamine (SP) for Mali. The project delivered the medicines from a regional distribution center that is closer to Mali than the suppliers, which reduced delivery and cycle times and helped reduce stock-outs.

SP/AQ repositioning. GHSC-PSM continued to implement our SP/AQ prepositioning strategy whereby we deliver the product from a regional distribution center to reduce the time between order and delivery. This quarter, the project delivered the first two shipments from the regional distribution center in Belgium to Guinea. The shipments were on time and delivered well ahead of the seasonal malaria chemoprevention campaign, so they would be available for use.

Global standards procurement requirement. In Q2, GHSC-PSM launched the TraceNet Working Group to develop a global standards-based identification, labeling and data exchange procurement requirement for LLINs. GHSC-PSM will coordinate the group, which will be co-chaired by USAID, the Global Fund and UNICEF. Representatives from these organizations will consult a broad range of country and manufacturer stakeholders and vector control experts to scope requirements and existing capabilities and to identify challenges in implementing these requirements for LLINs.

⁹ This quarter, GHSC-PSM procured malaria medicines and commodities for the following countries: AFRICA: Angola, Benin, Burkina Faso, Burundi, Cameroon, Côte d'Ivoire, DRC, Ethiopia, Ghana, Guinea, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Sudan, Tanzania, Uganda, Zambia, Zimbabwe; ASIA: Burma, Cambodia, Laos, Thailand

¹⁰ Note that, because of PMI's ordering cycle, GHSC-PSM calculates and reports cost-savings on malaria medicines and commodities only once a year in the annual report.

Quality Assurance and Quality Control

GHSC-PSM addresses challenges arising from an LLIN manufacturer's quality issues

Early in Q2, GHSC-PSM received notification of critical management and structural failures at one of the project's primary manufacturers of LLINs. These may have affected the long-term quality of nets manufactured between January 2017 and April 2018. Approximately 45 million nets procured for PMI were produced by the manufacturer after January 2017. It is believed that most of these nets, which were distributed already to end-users, still provide a physical barrier but may have insecticide concentrations resulting in LLINs with lower effective lifespans. Therefore, they may need to be replaced sooner than the normal three-year duration. GHSC-PSM conducts pre-shipment quality-assurance testing on all LLIN batches that we procure. During the period in question, all batches were compliant when tested pre-shipment. However, post-shipment tests identified some batches procured for Ghana, Mozambique, Nigeria and Uganda with insecticide levels identified as out of specification (OOS). Based on the OOS results and subsequent self-reporting by the manufacturer of a breakdown in its management system, in consultation with PMI, GHSC-PSM took the following steps:

- Convened an internal task force that included experts from all relevant project teams to ensure effective oversight and management of this situation.
- Initiated discussions with the manufacturer to understand the root cause of the breakdown in its management systems and what corrective and preventive actions had been put in place.
- Reviewed the project's subcontracts with the manufacturer to determine remedies available and informed the manufacturer of the liability it holds for the nets produced out of specification.
- Coordinated with PMI for PMI to notify the National Malaria Control Programs (NMCPs) in all affected PMI countries of the potential issues.
- Coordinated with PMI, GHSC-PSM's LLIN QC laboratory and the GHSC-QA contractor (FHI 360) to review the established pre- and post-shipment testing methodology and to develop an expanded protocol that contained additional post-shipment sampling and testing of procured nets.
- Completed a thorough LLIN market assessment and developed a customized mathematical optimization model to allow for scenarios analyses to inform future LLIN market risk assessment, support operational decision making, and inform development of the new LLIN sourcing strategy.
- Initiated remedy negotiations with the manufacturer to maximize compensation for PMI, minimize disruption to PMI programs, and ensure that PMI programs receive effective replacement nets as soon as possible.

QA system pilot a success

During Q2, the project completed pilot testing of the Quality Assurance Management System (QAMS), which is designed to capture QA-related information for malaria commodity orders that require QA support. Based on the successful pilot, the project will launch full implementation of QAMS next quarter.

Revised quality control testing strategy for ACTs and RDTs

GHSC-PSM analyzed and evaluated data to support cost-cutting QA initiatives that are critical to procurement. Evaluation of the risk-based testing strategy for ACTs showed that, between September and December 2018, the risk-based approach saved \$69,000 in testing costs (or 55 percent of the original testing costs). GHSC-PSM performed a similar analysis for RDTs concurrent with the evaluation for ACTs and provided the results of the risk-based testing approach to PMI. The evaluation may be used to inform a reduced testing strategy for RDTs.

Support for Prioritizing Orders and Transferring Stock

In Q2, 27 countries submitted data to the Procurement Planning and Monitoring Report-malaria (PPMRm). Niger reported PPMRm data for the first time. An emphasis was placed on collecting other donors' shipment information, including collaborating with donors such as the Global Fund to cross-check accuracy of shipment information included in PPMRm.

Countries continued to report on products recently added to PPMRm, such as artesunate suppository 50-mg, 100-mg and 200-mg. PPMRm information was used to identify central-level overstocks and understocks. This information will be used to prioritize orders that are now being placed with GHSC-PSM as well as orders already in the pipeline.

EUV Summit

During the past year, GHSC-PSM piloted new tools and a new sampling methodology for the end-use verification (EUV) survey for malaria, with added modules for FP/RH and MNCH commodities. The EUV survey provides timely and actionable information regarding stock levels and storage and use of pharmaceuticals at service delivery points for the detection and correction of issues surrounding implementation of health programs. During Q2, GHSC-PSM hosted an EUV Summit to present the revised EUV methodology and tools to USAID representatives. The participants reviewed the revised EUV methodology, tools, training materials and a new analysis tool. Follow-up discussions on the sampling methodology and improvements to the dashboard are ongoing.

Country Support

GHSC-PSM provided supply-chain systems strengthening for malaria medicines and commodities in 23 countries this quarter¹¹. Examples of our work in Q2 follow.

¹¹ The countries for which GHSC-PSM provides technical assistance with malaria funding are: AFRICA: Angola, Burkina Faso, Burundi, Cameroon, Ethiopia, Ghana, Guinea, Kenya (TO5), Liberia, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Sierra Leone, South Sudan, Uganda, Zambia, Zimbabwe; ASIA: Burma, Cambodia, Thailand

GHSC-PSM responds to Cyclone Idai destruction in Malawi, Mozambique and Zimbabwe

A natural disaster puts enormous strain on a supply chain, requiring quick assessment of damages and product loss, nimble response to emerging and critical needs, and broad data sharing with all parties that mobilize to deal with the emergency. In response to Cyclone Idai's devastation in Mozambique in March, GHSC-PSM supported malaria, HIV/AIDS, and, to a lesser extent, nutrition emergency working groups that included representation from WHO, PMI, the Global Fund, the NMCP, the Mozambique National Institute of Health and others. The project delivered 182,700 LLINs to the badly damaged port city of Beira and supported an emergency malaria meeting to review product loss and to revise quantification to reflect an expected increase in malaria cases in some parts of the country. GHSC-PSM's critical efforts to help the government and donors deal with the emergency is summarized in the box. Also, GHSC-PSM in Malawi and Zimbabwe delivered 86,000 and 160,000 LLINs, respectively, to flood-affected areas to prevent the spread of malaria in the wake of flooding.

Supply Chain Responds to Disaster: GHSC-PSM Supports the Malaria Program After Cyclone Idai Strikes

- Delivered more than 428,000 LLINs including 182,700 to the badly damaged city of Beira, Mozambique
- Maintained data on current stock on hand
- Shared information on medicines and commodities sent to disaster areas and supported distribution planning
- Quantified extra needs for disaster areas with the emergency response groups
- Helped the PMI team respond to disaster aid requests
- Reallocated orders intended for Beira to other central warehouses
- Assessed damage to malaria products at all supply-chain levels



Warehouse Munhava in Beira, Mozambique, was one of the hardest-hit public health warehouses. The building needs major rehabilitation to be operational again, with a third of the roof missing and significant damage to one wall. *Photo credit: Mickael Breard/GHSC-PSM*

Supply pipeline in Guinea adjusted after review reveals understocks

GHSC-PSM in Guinea is helping the NMCP's procurement and supply management technical working group institutionalize forecasting and supply planning (FASP) best practices. This quarter's support focused on reviewing and updating the malaria supply plan. In collaboration with other NMCP partners, GHSC-PSM facilitated a workshop to analyze and validate stock-level, consumption and shipment data from various sources. The analyses revealed that three out of four artemether-lumefantrine (ALu) formulations and RDTs were understocked. This review enabled NMCP to work with both PMI and the

Global Fund to adjust the supply pipeline to ensure continuous availability of commodities. Delivery schedules for these products were moved up to avert potential stock-outs.

Caldwell warehouse improves supply-chain management conditions in Liberia

In December 2018, GHSC-PSM assisted the Liberia MOH with relocating its Central Medical Stores (CMS) from a sub-standard warehouse in Freeport to a new state-of-the-art facility in Caldwell. The project worked closely with CMS in both the planning and physical movement of medicines and commodities between warehouses. The new warehouse has a greater capacity for storage, including cold-chain, and uses an automated inventory control system – mSupply – to track inventory. The new system is expected to increase efficiency overall, will increase inventory accuracy and reduce labor costs. Prior to opening the new warehouse in Caldwell, the CMS faced challenges including poor storage conditions, medicine theft, and a lack of visibility into inventory availability. Construction of the new warehouse was funded by USAID, Gavi, and the Global Fund.

Burkina Faso procurement planning improves with project assistance

Stock on hand (SOH) figures are critical for procurement planning. Previously, SOH data in Burkina Faso were incomplete, which reduced the quality of procurement planning. In January, GHSC-PSM provided financial and technical support to NMCP and the pharmacy department to complete the annual physical inventory of malaria commodities in all 70 district stores, 10 Central Medical Stores regional warehouses, and the central warehouses. In February, the technical coordinating committee for the malaria program used data from this physical inventory in the supply plan review. Use of data on the actual stock situation strengthened the country's procurement plans for malaria commodities.

Supply planning review in Burundi assuages expiry risk concerns

In response to a potential expiry risk for two types of artesunate/amodiaquine (ASAQ) tablets, GHSC-PSM and the United Nations Development Programme (UNDP) helped the government of Burundi analyze stock status for malaria commodities and review supply planning for the remainder of the year. The quantification subcommittee concluded that there was no expiry risk, that staff should continue to closely follow consumption to prevent any potential expiries, and that additional procurements, which could have led to wastage, were not needed.

Supply planning workshop identifies and avoids potential stock-out

In Ethiopia, GHSC-PSM assisted the Federal Ministry of Health (FMoH) and Ethiopian Pharmaceuticals Supply Agency (EPSA) in conducting a quarterly supply planning workshop for malaria commodities. Held in March, the workshop focused on building consensus around the necessary lead time required for malaria commodities and on identifying ways to improve procurement planning and management. Due to the risk of a stock-out of artesunate injectable that was identified in the supply planning exercise, the planned delivery of an upcoming artesunate injectable order was moved up from August to June. The workshop enhanced the capacity of FMoH and EPSA to complete quarterly procurement quantification exercises to ensure sufficient product in the pipeline.

Commodity accountability performance tracking (CAPeT) undergoes review in Malawi

The project reviewed the commodity accountability performance tracking (CAPeT) approach and tool that are used in Malawi to improve accountability and reporting for malaria commodities at service delivery points. The NMCP, the MOH Health and Technical Support Services-Pharmaceuticals Directorate, PMI and the USAID-funded Organized Network of Services for Everyone's Health (ONSE)

participated in the review. Reviewers resolved that, moving forward, CAPeT results (action plans) will be incorporated into the ongoing Integrated Supportive Supervision and Peer Mentorship program, and districts will now follow up to ensure facilities are implementing action points agreed upon during the CAPeT visits. This demonstrates local ownership in using information to guide actions and commitment to making improvements toward self-reliance.

LLIN Distribution Support

In Q2, many countries prepared for large-scale LLIN campaigns or distributed nets as a key malaria prevention strategy. These massive distribution campaigns ensure beneficiaries, particularly in high-impact areas, receive the nets they need in advance of the rainy season. While the actual distributions can last just a few weeks, logistics, supply planning, procurement and pre-positioning the nets take months.

Training bolsters LLIN campaign in Burkina Faso

In advance of an upcoming national LLIN distribution campaign in Burkina Faso, GHSC-PSM provided technical and financial support to the NMCP for three two-day logistics training-of-trainers workshops. The workshops trained more than 140 district pharmacists, pharmacist assistants, and central-level staff responsible for logistics management in 13 regions. Training was provided on logistics planning and LLIN management tools that will be used during the national LLIN campaign. District pharmacists will, in turn, train the head nurses and health facility storekeepers on the new LLIN management tools. Proper use of the logistics tools will improve visibility into dispatch of LLINs visibility into dispatch of LLINs to all supply-chain levels and will support distribution to households during the mass campaign scheduled in June/July 2019.

Planning continues for LLIN campaigns in Nigeria and Burundi

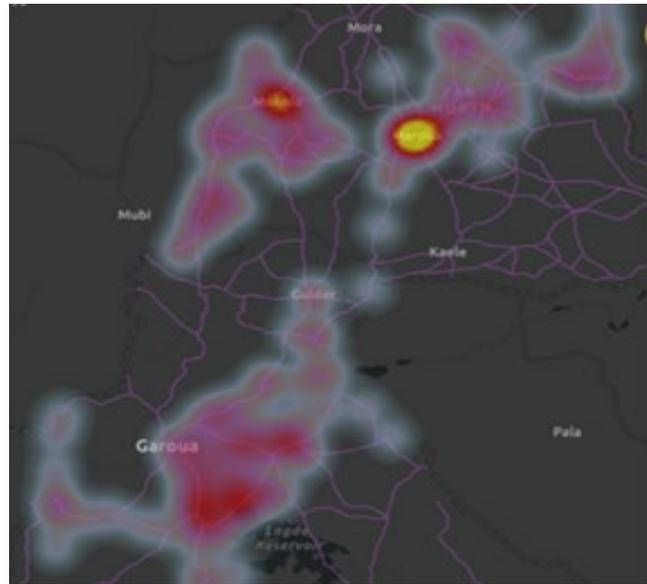
GHSC-PSM helped Cross River and Plateau states in Nigeria complete planning for mass LLIN distribution campaigns scheduled for FY 2019 Q3. Work included reviewing LLIN campaign training plans and materials, finalizing LLIN distribution campaign guidelines and tools, and identifying warehouses to pre-position LLINs. In **Burundi**, the project supported the NMCP to plan a mass LLIN distribution campaign for FY 2020. GHSC-PSM helped draft a global action plan, particularly the logistics action plan, and identify the tools to be used



LLINs reach people in remote areas of Ethiopia. A resident of Limu Kossa district, Oromia State enjoys the walk back home with the net he received.
Photo Credit. Sisay Sima/GHSC-PSM

Technology assists LLIN distribution in Cameroon

GHSC-PSM in Cameroon distributed 255,750 LLINs to more than 600 sites, recording deliveries using the Transportation Information Tool (TransIT). TransIT is a cloud-based, non-subscription Software as a Service (SaaS) system that enables user access to transportation information anytime, anywhere. Along with TransIT, the project used electronic proof of delivery (ePOD), an application that allows proof of delivery receipts to be signed and archived electronically. The constant stream of information generated by TransIT and ePOD created an instant report card of progress that enabled distribution managers to better track LLIN shipments, increase security and documentation, and make informed, data-driven decisions.



Cameroon LLIN delivery heatmap shows number of deliveries data from TransIT

B3. Family Planning and Reproductive Health



GHSC-PSM delivered enough contraceptives to provide **44.7 million couple-years of protection¹² over the life of the project, including 3.7 million in Q2.** GHSC-PSM achieved **100 percent on time delivery (OTD)** for January and February and **85 percent** for the quarter.



25 countries procured FP/RH commodities¹³ and 19 countries received health supply-chain systems strengthening with FP/RH funding this quarter.



GHSC-PSM continued to play a global leadership role, including **chairing the Systems Strengthening Working Group of the RHSC** at the annual General Membership Meeting in Nepal and leading a strategy refresh for the group.



The project continued to achieve **major data visibility milestones by supporting the launch of the Global FP VAN.**



The project **began discussing strategies for the hormonal IUS** with the goal of increasing access to the product in countries via the public sector.

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

Addressing FP/RH Priorities

¹² CYP is a standard indicator calculated by multiplying the quantity of each contraceptive method delivered 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 and implants may be removed before their life span is realized. This GHSC-PSM measure includes all condoms, intrauterine devices, and hormone (oral, injectable, and implantable) contraceptives delivered over the life of the project, with the conversion factor provided by USAID/MEASURE Evaluation (see <https://www.usaid.gov/what-we-do/global-health/family-planning/couple-years-protection-cyp> for details).

¹³ All condoms procured with FP/RH funding are included here, all other condoms are counted under the HIV/AIDS task order.

GHSC-PSM has addressed USAID’s FP/RH priorities by managing and continuously improving our global supply operations, partnering with countries to build self-reliant supply chains, and leading with knowledge and evidence. Below, GHSC-PSM provides examples of our work in these areas.

Collaborating with global stakeholders

In Q2, the project continued to build global partners’ awareness of and support for the U.S. Government’s FP/RH priorities and programs, and to support USAID’s leadership in FP/RH commodity availability.

GHSC-PSM participates in Reproductive Health Supplies Coalition Annual Meeting

In March, GHSC-PSM staff attended the annual RHSC General Membership Meeting in Nepal, which focused on assessing progress in the past decade and looking ahead to the next. GHSC-PSM led the Systems Strengthening Working Group (SSWG) meeting, where a new strategy was introduced (see below). The project also co-facilitated, in conjunction with the University of Lugano (Switzerland), an interactive supply-chain game, known internationally as the “Beer Game,” which allows participants to experience the challenges of operating an efficient supply chain in a context of limited information-sharing and visibility. Also, project staff presented in panels on the Global FP VAN, Contraceptive Security Indicators, and eLMIS implementation in Pakistan.

As SSWG chair, GHSC-PSM implemented a new strategy to revitalize RHSC SSWG membership. The SSWG’s core group drafted a new mission and value propositions for key stakeholder groups, and established priorities for action and learning (see box) along with objectives for each. The broader SSWG membership then validated the strategy at the General Membership Meeting.

RHSC Systems Strengthening Working Group Priority Focus Areas

- Visibility and analytics
- Workforce development
- Financing
- Last-mile delivery
- Humanitarian supply chains
- Envisioning the future of supply chains

Total Market Approach

To ensure access to contraceptives and FP/RH supplies, GHSC-PSM is studying the markets and collaborating with partners in several countries to understand the landscape for those products. Through this total market approach, the project will better understand what strategies will be successful within a country to improve method choice. Below are examples of activities performed in Q2 that inform this research.

GHSC-PSM attended the Total Market Approach Working Group meeting hosted by PSI in February. There, the project shared information on our side event workshop on improving family-planning sector market health to impact long-term client outcomes and a panel presentation on assessing the introduction of generic oral contraceptives to support healthy market development at the global and local levels at the International Conference on Family Planning in Rwanda during Q1. For the upcoming Total Market Approach Working Group meeting in June, GHSC-PSM is coordinating with PSI to present IQVIA’s analysis of private-sector data from Benin, Kenya and Togo.

Award of private-sector data contract

In Q2, GHSC-PSM awarded an indefinite quantity subcontract and task order to IQVIA, a health sciences information company, to obtain and analyze private-sector data. IQVIA will provide granular

data and analysis of the total market landscape for contraceptives in South Africa based on its commercially available private-sector data and public-sector data sources. This analysis will contribute to understanding the method mix in South Africa in the private and public sectors nationally and sub-nationally, which will enable the government to program effectively. Stakeholders can use the analyses to inform and support FP programming.

FP2020 Working Group

The FP2020 Performance Monitoring and Evidence Working Group selected a GHSC-PSM manager from among 150 applicants to serve a two-year term ending December 2020. The international group, co-led by the Population Council, WHO and the University of California, San Francisco, works to enable 120 million additional women and girls in the world's poorest countries to use contraceptives by 2020. The working group seeks to establish and track data associated with FP2020's core indicators. GHSC-PSM participated in the PME WG meeting in March in New Delhi, India. GHSC-PSM's appointment to the PME WG raises the project's thought leadership profile and provides an opportunity to contribute to the discussions by providing additional supply-chain data and insights. Most notably, this will focus on the project's contribution of data to and analysis of FP2020's Core Indicator 10 on stock-outs.¹⁴

Launch of Global Family Planning Visibility and Analytics Network

After more than a year of work and collaboration with partners, GHSC-PSM played a leading role in the launch of a new network to share contraceptive information, as summarized in the box on the following page.

Contraceptive security tracking

The project worked to raise awareness of the Contraceptive Security Indicators dashboard in Q2. This included presenting the dashboard to the RHSC Advocacy and Accountability Working Group (AAWG) at the RHSC General Membership Meeting, to the AAWG monthly webinar, and to field offices and project management units at GHSC-PSM headquarters. Another presentation was requested by the AAWG during the upcoming monthly call in June. This outreach was done as part of GHSC-PSM's dissemination plan for the dashboard. GHSC-PSM also worked with USAID to update the Contraceptive Security Indicators survey for another round of data collection later in 2019. The feedback and discussions had as a result of these outreach opportunities will lay the foundation for any revisions made to the FY 2019 survey.

Contraceptive and condom packaging rationalization

Health commodity packaging is important to supply-chain efficiency and, ultimately, the patient experience. In February, GHSC-PSM analyzed case study data from Mozambique, Rwanda, Zambia and Zimbabwe to inform recommendations for harmonized packaging among major procurers of condoms and contraceptives. Initial observations were that packaging of otherwise identical products can vary based on supplier, procurement agent or program need. As a result, some countries manage multiple stock-keeping units in their supply chains for otherwise interchangeable products. These findings were shared with USAID and UNFPA and presented at a session hosted by USAID in March. In Q3, GHSC-PSM will engage manufacturers and upstream stakeholders in discussions to better understand manufacturing constraints related to packaging to inform recommendations for harmonization.

¹⁴ http://www.track20.org/pages/data_analysis/core_indicators/overview.php#ind10

Pathways to increasing access to hormonal IUS

In February, GHSC-PSM, in collaboration with FHI 360, convened a working session with stakeholders to discuss strategies to increase access to the hormonal IUS in countries via the public sector. There are several potential investments and market levers that the global community can employ to increase market health and grow the public market over a three- to five-year time horizon. GHSC-PSM will host a follow-on discussion with key stakeholders in April to explore potential pathways.

Global FP VAN: Enhancing Visibility of Data and Coordinated Planning for Family-Planning Supplies

In January 2019, the RHSC, with support from GHSC-PSM and partners, including UNFPA, formally launched the Global FP VAN platform. The Global FP VAN is a shared platform that captures and uses contraceptive supply-chain data from multiple donors, procurers and country programs to improve data visibility as an input to coordinated decision making. The platform aims to improve allocation of limited health resources and gain efficiencies throughout the global supply chain from supplier to country-level recipient programs.



The pilot launch is the culmination of over a year of design, development, testing and—most of all—collaboration. Throughout the development process, GHSC-PSM played many key roles including:

- **Personnel**, who participated widely in strategy and execution
- **Process**, designing a new collaborative control tower process and establishing a data sharing governance structure
- **Technology**, such as defining requirements, supporting selection of a vendor through a competitive request for proposal process, configuring the system, establishing a real-time feed from the project's Automated Requisition Tracking Management Information System, and user-testing the platform.

Thanks to this effort, the Global FP VAN now marries order/shipment data for 95 countries, inventory data for 32 countries, and supply plan data for Malawi and Nigeria (Global FP VAN pilot countries) in a unified control tower. This allows GHSC-PSM and partner organization users to access information, identify risks, discuss issues, and ultimately make informed decisions. Based on the pilot's initial success, a second year-long phase to grow and develop the technology and its associated processes has been approved.



An image from an RHSC video explaining how information is shared through the Global FP VAN

Collaborating Globally to Avert Stock-outs and Expiries

During Q2, GHSC-PSM received and processed the Procurement Planning and Monitoring Report (PPMR) on stock status, expected FP commodity deliveries, and other contraceptive security activities from 66 country programs. There are supply shortages of several important FP products, which increases the need for solid information and close global collaboration to avert stock-outs. Based on stock imbalance data reported in the PPMR, the project worked with the Coordinated Assistance for Reproductive Health Supplies (CARhs) group to:

- Create five new shipments for Côte d'Ivoire, Mali and Senegal
- Postpone six shipments to Benin, Ethiopia and Senegal to reduce or avoid overstock situations and to prevent commodity expiries
- Expedite four shipments to DRC and Madagascar to prevent stock-outs
- Achieve nine transfers among programs in Cameroon, Côte d'Ivoire, Madagascar and Tanzania that rebalanced program stocks and increased cross-program collaboration within countries

Complete GHSC-PSM procurement of 400,775 syringes for a stock of DMPA at risk of expiry because of a shortage of syringes

Also, donors responded to 43 information requests and 14 issues highlighted by programs through PPMR submissions, providing in-country counterparts with valuable information on upcoming shipments and requests for assistance.

Strategic Sourcing, Procurement and Deliveries

This quarter, GHSC-PSM procured FP/RH commodities for 25 countries.¹⁵

Strategic sourcing

GHSC-PSM achieved significant milestones in the FP/RH sourcing strategy. GHSC-PSM's FP/RH Commodity Council meeting in March focused on:

- A review of year one goals and progress against the broader FP/RH five-year sourcing strategy, noting the project has achieved nearly all its one-year sourcing goals and made progress against medium-term goals in several product categories.
- Opportunities to leverage and provide additional value through the project's extended FP/RH supplier base.
- In-depth analysis of the constrained global supply of injectables and oral contraceptives.

Drugs and Commodities Procured for FP/RH Programs

- Consumable kits for implants
- Contraceptive implants
- Cyclebeads®
- Injectables
- Intrauterine devices
- Oral contraceptive pills

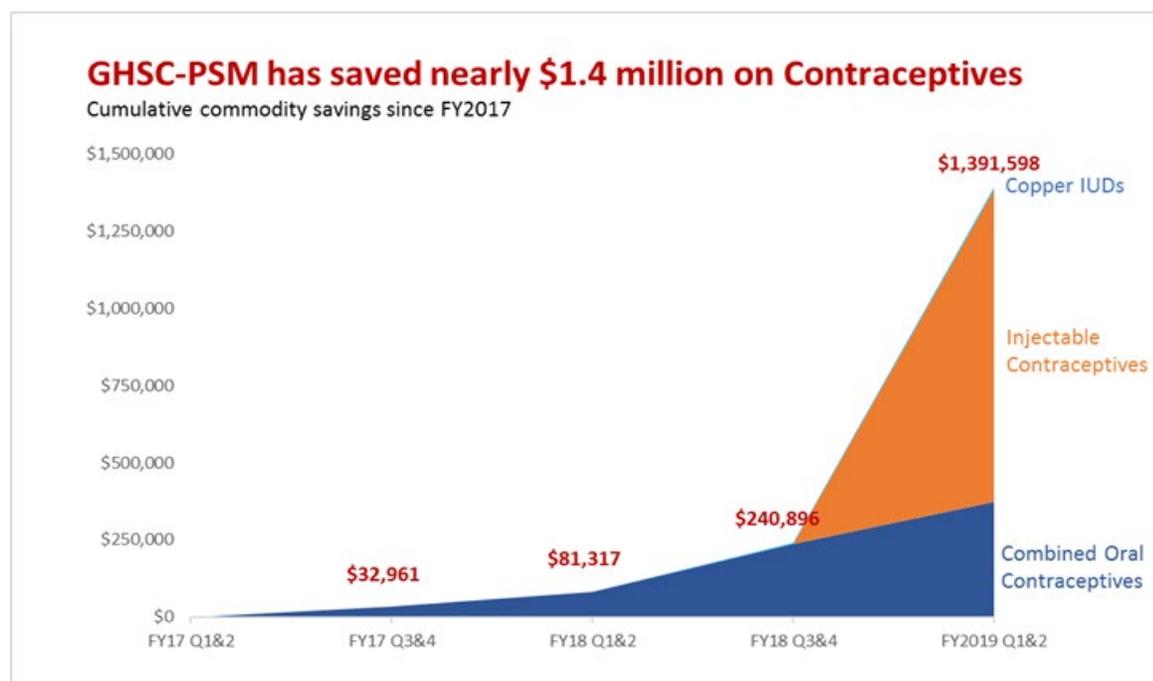
The latter will help GHSC-PSM further strategize how to avert shortages of injectables and oral contraceptives as well as deal with the global shortage of a one-rod implant contraceptive. Over Q2, GHSC-PSM effectively allocated supply of products for which there are global production constraints, including injectables and implants, across recipient countries to avert stock-outs while collaborating closely with the global FP/RH community through the Coordinated Supply Planning group.

Cost-savings

GHSC-PSM's strategic sourcing activities generate significant cost-savings for USAID through the diversification of the supply base, addition of generic products and negotiation of new supply contracts. As shown in Exhibit 6, almost \$1.4 million has been saved to date.

¹⁵ This quarter, GHSC-PSM procured FP/RH commodities for the following countries: AFRICA: Benin, Burkina Faso, Burundi, DRC, Ethiopia, Ghana, Guinea, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Nigeria, Rwanda, Senegal, Tanzania, Uganda, Zambia; LAC: Haiti; ASIA/NEAR EAST: Afghanistan, Bangladesh, Nepal, Yemen

Exhibit 6. Cost-Savings on Contraceptives



On-time delivery

GHSC-PSM continued to successfully fulfill USAID-supported countries' orders in a timely manner, achieving 100 percent on-time delivery in January and February 2019, and 85 percent over the quarter.¹⁶

First generic injectable contraceptives delivered

In Q1, the project averted a global shortage of a three-month injectable contraceptive, depot-medroxyprogesterone acetate intramuscular injectable (DMPA-IM), by adding the first generic supplier of this product in USAID's history. By diversifying the supplier base, GHSC-PSM is mitigating supply risk and reducing the unpredictability of lead times. Also, this approach has already provided significant cost-savings while ensuring quality standards are met. In Q2, first orders of the generic injectable were delivered to Malawi.

Emergency deliveries

Also, GHSC-PSM successfully delivered the second phase of an emergency order of FP/RH commodities to Yemen's major cargo seaport of Aden. The order comprised injectable contraceptives, intrauterine devices, oral contraceptives (including emergency oral pills), and male and female condoms, valued at approximately \$1 million. These will be distributed in the crisis-affected area.

¹⁶ The dip in OTD in March resulted from shipments from a new supplier. The project lacked direct experience with and historical data on processing orders with this supplier that it needed to set appropriate delivery expectations.

Country Support

Below, we provide examples of country-level support provided by GHSC-PSM this quarter.¹⁷

Mozambique adopts policy accepting generic contraceptives

In Mozambique, the project successfully advocated for the MOH to adopt a countrywide policy for the introduction of generic contraceptives. While GHSC-PSM initially focused just on generic DMPA-IM, the request was broadened during discussions to include acceptance of all generic contraceptives across all commodity types in the public health supply chain. This political buy-in is a major achievement that will help Mozambique realize key Family Planning 2020 commitments and improve access to modern contraceptive methods in the country (see box).

Advocacy for Generic Contraceptives

GHSC-PSM in Mozambique's push for generic contraceptives resulted in a new MOH policy to use them in the national health supply chain, increasing contraceptive availability throughout the country.

Contraceptive procurement tables prepared in Ghana

The project provided technical assistance to the Family Health Division of the Ghana Health Service, social marketing organizations and the National Quantification Team to determine the 2019-2021 contraceptive procurement tables. This assistance involved:

- Developing a national forecast and supply plan of FP commodity requirements for the government and implementing partners, including social marketing groups.
- Performing an extensive data quality assessment at health facilities and implementing partners' offices to assess and verify the systems and processes for data quality assurance.
- Estimating forecasts for all FP/RH commodities for 2019-2021 including requirements for subcutaneous DMPA, which was integrated into the method-mix starting this year.

Stakeholders also examined key issues pertaining to stock availability including risk of expiry for emergency contraceptives, low uptake of female condoms, and data quality gaps and proposed solutions to implement in the coming year. Because of the exercise, UNFPA is expected to provide an additional \$677,000 to fill the funding gap over the forecast period.

¹⁷ The countries for which GHSC-PSM provides technical assistance with FP/RH funding are: AFRICA: Angola, Burundi, Ethiopia, Ghana, Guinea, Kenya, (TO5) Liberia, Malawi, Mali, Mozambique, Nigeria, Rwanda, South Sudan, Uganda, Zambia; LAC: Guatemala, Haiti; ASIA/NEAR EAST: Nepal, Pakistan

B4. Maternal, Newborn and Child Health



Eight countries procured MNCH commodities and 15 countries received health supply-chain systems strengthening assistance with MNCH support this quarter.



As an outcome of GHSC-PSM leadership and advocacy, **WHO, UNICEF and UNFPA released a joint statement on the importance of maintaining oxytocin in cold chain.**



The project continued efforts conducting formative research and developing protocols and tools for **private-sector rapid assessments** and a **newborn and child health commodities assessment.**

Under the MNCH task order, GHSC-PSM supports efforts to end preventable child and maternal deaths by increasing access to quality-assured medicines and supplies. In collaboration with USAID, the project provides global technical leadership on MNCH commodities and ensures that supply-chain management considerations are included in global dialogue and initiatives. GHSC-PSM focused on two key areas during this reporting period: ensuring the availability of high-quality MNCH commodities and providing global technical leadership.

Ensuring Availability of High-Quality MNCH Commodities Within the Public and Private Sectors

Plans for examining neonatal mortality rate progress in Malawi

In Q2, GHSC-PSM advanced a concept to assess newborn resuscitation devices in Malawi. The Malawi Ministry of Health has made significant improvements over the past 10 years in reducing preventable child mortality. Despite this progress, neonatal mortality in Malawi remained stagnant between 2004 and 2016 at 27 deaths per 1,000 births. The proposed assessment will identify supply-chain weaknesses and develop an actionable strategy to increase the availability of quality newborn resuscitation devices. GHSC-PSM is currently developing the tools for this assessment.

Assessing private-sector barriers in Mozambique and Zambia

GHSC-PSM is preparing to undertake a rapid assessment to identify challenges and barriers that private-sector wholesalers and distributors face in providing quality-assured MNCH products throughout the health supply chain in Zambia. In March, GHSC-PSM provided an overview of the private-sector assessment protocol to USAID/Zambia. GHSC-PSM is initiating a similar activity in April in Mozambique.

Understanding cold chain challenges throughout the supply chain

Oxytocin, the recommended product for preventing and treating postpartum hemorrhage, is a heat-sensitive product that requires transport and storage in the cold chain; storing oxytocin at room temperature or higher can result in product degradation. Keeping oxytocin within a proper temperature range has been an ongoing challenge in the GHSC-PSM supply chain where commodities are shipped to and stored in countries with high temperatures.

The use of temperature monitoring devices throughout storage and distribution can provide critical information on whether products have been kept at required temperatures. A time temperature indicator (TTI), also used for vaccines, is a circular sensor placed on packaging to indicate the cumulative temperature exposure of a product. In Q2, GHSC-PSM began drafting a TTI implementation roadmap for oxytocin at the global and country levels. The guide will include information on required inputs, assumptions and cost considerations across the supply chain.

GHSC-PSM explored other solutions to improve the quality of oxytocin in the supply chain. This included assessing major barriers to ensuring oxytocin quality at all levels of the health and supply-chain systems in Ghana. GHSC-PSM staff interviewed stakeholders at all levels in Ghana, including national-level finance and policy decision makers, regional medical warehouse managers, and pharmacists and health care personnel in hospitals and health centers. When analysis is complete, GHSC-PSM will develop and share data-driven recommendations broadly with key stakeholders in Ghana.

Providing Global Technical Leadership in MNCH

Joint statement on oxytocin management

At the RHSC General Membership Meeting, during a plenary session on quality of medicines and supplies, WHO, UNICEF and UNFPA announced the release of a joint statement on the need to procure quality-assured oxytocin and maintain it in the cold chain throughout the supply chain. GHSC-PSM's contributions to this important milestone are summarized in the box.

GHSC-PSM Behind Statement on Oxytocin Management

The joint statement on storage and management of oxytocin¹⁸ is the culmination of a global collaboration that was launched at an oxytocin technical summit organized by GHSC-PSM in October 2017. At that summit, countries asked WHO, UNFPA and UNICEF to issue a statement on oxytocin management. GHSC-PSM led development of the initial draft, which then went through several iterations over the course of a year.

Immediately following the official release of the statement, GHSC-PSM shared it with all project country teams for dissemination. Several project countries, including Liberia and Malawi, already have expressed interest in analyzing options for improving oxytocin management.

The graphic features logos for the World Health Organization, UNICEF, and UNFPA at the top. Below the logos, the text reads: "WHO/UNICEF/UNFPA JOINT STATEMENT" followed by the title "Appropriate Storage and Management of Oxytocin – a Key Commodity for Maternal Health". The main body of the graphic contains two columns of text. The left column states: "The World Health Organization (WHO), United Nations Children's Fund (UNICEF) and United Nations Population Fund (UNFPA), in consultation with international experts and stakeholders, underscore the importance of ensuring the availability of quality-assured oxytocin at all assisted births to save women's lives. This recommendation results from an exhaustive review of current evidence around oxytocin, particularly the finding that poor quality oxytocin is in circulation in many countries." The right column states: "These partners strongly urge the following actions:" followed by a numbered list: "1. Ensure that oxytocin is managed in a cold chain of 2-8 °C (35-46 °F) for distribution and storage; 2. Procure oxytocin that meets the quality requirements established by WHO or a regulatory authority recognized by WHO; 3. Label oxytocin to clearly indicate storage and transport requirements at 2-8 °C (35-46 °F)."

¹⁸ <https://apps.who.int/iris/bitstream/handle/10665/311524/WHO-RHR-19.5-eng.pdf>

Postpartum hemorrhage guidance

GHSC-PSM has provided significant technical input to a guidance document on medicines for preventing postpartum hemorrhage. During the Maternal Health Supplies Caucus meeting held at the RHSC annual meeting in Nepal, GHSC-PSM discussed the guidance document with Caucus members. After feedback is incorporated into the guidance document, GHSC-PSM will help pilot it in at least one country. Also, during the RHSC meeting, GHSC-PSM and Monash University presented on oxytocin quality during a parallel session.

Country Support

Malawi uses new software for commodity quantification

GHSC-PSM provided supply-chain systems strengthening for MNCH commodities in 15 countries¹⁹ in Q2. To illustrate technical assistance, in FY 2018, GHSC-PSM successfully replaced the Malawi Ministry of Health's Microsoft Access-based commodity logistics data application with OpenLMIS, the country's first web-based logistics management information system. GHSC-PSM oversaw the migration of five years of historical data into OpenLMIS and coordinated training on the system for more than 100 staff from districts, central hospitals, health centers, and central medical stores. The system has improved the country's performance in key supply-chain metrics and informed quantification of MNCH commodities for the first time (see box).

Data from New LMIS Used to Quantify MNCH Product Needs in Malawi

In Q2, GHSC-PSM in Malawi used OpenLMIS data for the first time to inform the 2019–2021 quantification for MNCH products and to advocate for funding for drugs such as amoxicillin dispersible tablets.

Procurement and Deliveries

In Q2, GHSC-PSM procured MNCH medicines and other health commodities for eight countries.²⁰ By the end of the quarter, the project had procured \$5.9 million in MNCH commodities over the life of the project.

GHSC-PSM continued with deliveries of a large order of essential medicines and consumables to DRC during the quarter. The project also assisted DRC with the review and cost estimates of a new essential medicines order.

In Q2, GHSC-PSM completed two deliveries of chlorhexidine digluconate to Mali. GHSC-PSM is supporting the Ministry of Health in Mali with chlorhexidine digluconate 7.1 percent topical gel as part of a national scale-up of chlorhexidine for newborn umbilical cord care. GHSC-PSM will continue to assist the rollout through monitoring actual consumption and stock levels.

¹⁹ The countries for which GHSC-PSM provides technical assistance with MNCH funding are: AFRICA: Ethiopia, Ghana, Guinea, Kenya (TO5), Liberia, Malawi, Mali, Mozambique, Nigeria, Rwanda, Zambia; LAC: Guatemala, Haiti; ASIA: Nepal, Pakistan

²⁰ Countries that received procurement support for MNCH this quarter: AFRICA: DRC, Ghana, Liberia, Madagascar, Mali, Mozambique, Rwanda, Zambia

B5. Other Emerging Health Threats



To detect and/or prevent further spread of the Zika virus, in Q2 GHSC-PSM delivered **132 ZIKV Detect™ test kits, more than 2 million male condoms and more than 250,000 bottles of mosquito repellent.**



GHSC-PSM **gathered and analyzed data from 30 health facilities in Jamaica** that received mosquito repellent for Zika prevention. The project also launched repellent availability assessments in the Dominican Republic and Haiti.



The project led intensive working sessions with the Honduran Ministry of Health supply-chain teams to **prepare for future outbreaks** of infectious disease.

GHSC-PSM is working directly with Ministries of Health across Latin America and the Caribbean to provide critical Zika diagnostic and prevention supplies. In parallel, the project is building partnerships to collaboratively hone and elaborate operating procedures for responding to infectious disease outbreaks²¹.

Supporting the Zika Response - Deliveries

GHSC-PSM provides commodities used by health programs to help pregnant women throughout Latin America and the Caribbean avoid contracting Zika, an arbovirus and sexually transmitted infection that can cause severe birth defects when it infects women during pregnancy. GHSC-PSM is equipping health ministries with male condoms, test kits, mosquito repellent and technical assistance to resist Zika's spread. All deliveries this quarter are summarized in the box.

Repellent

In Q2, GHSC-PSM continued to oversee the ongoing distribution of repellent to antenatal care facilities in the Dominican Republic, El Salvador, Haiti, Honduras and Jamaica. Ministries of health dispense this repellent to pregnant women for Zika prevention. Cumulatively, over the past three quarters, GHSC-PSM has delivered more than 1 million bottles of repellent to warehouses and clinics across five countries. These ultimately will reach more than 200,000 pregnant women (average of five bottles per woman) for Zika prevention.

Test kits

During Q2, GHSC-PSM locally sourced and delivered 132 Zika testing kits in Colombia. These will be used in a U.S. Centers for Disease Control and Prevention (CDC) study called "Zika en Embarazadas y

Deliveries to Diagnose and Prevent Zika Infections

In Q2, GHSC-PSM delivered:

- 132 ZIKV Detect™ test kits to Colombia
- 2,001,000 male condoms to Trinidad and Tobago
- 96,840 bottles of mosquito repellent to El Salvador
- 156,408 bottles of mosquito repellent to Honduras

²¹ The countries for which GHSC-PSM provided technical assistance for Zika with MNCH funding in Q2 are: Dominican Republic, El Salvador, Honduras, Ecuador, and Peru.

Niños” (ZEN – Zika in pregnant women and babies) that is being conducted jointly by the CDC and Colombia’s National Institute of Health (INS). The ZIKV Detect™ kits will test for Zika virus immunoglobulin M (IgM) antibodies in pregnant women’s blood serum upon their enrollment in the study and in the infants’ blood serum upon delivery.

Condoms

The project delivered 2,001,000 male condoms this quarter to Trinidad and Tobago. The Ministry of Health dispenses these condoms to pregnant women to give to their partners to prevent sexual transmission of the virus and avert microcephaly cases.

Assessment of Use of Repellent and Instructional Materials

To check whether mosquito repellent and guidance materials are being distributed and used as intended, in Q2, GHSC-PSM launched an assessment of repellent availability at distribution centers and antenatal care facilities across the region. The objectives of these assessments are to gather data on the:

- Availability of mosquito repellent at clinics, along with any supply chain-related issues
- Conditions in which the repellent is being stored
- Perception and knowledge of providers in using and distributing repellent for Zika prevention
- Extent to which pregnant women have received the donated product

In February, GHSC-PSM conducted site visits at 30 clinics and distribution centers across Jamaica. Through a combination of record reviews, open-ended interviews and a short-answer survey administered to health workers, the assessment team gathered critical data on repellent distribution and use in the country. The report, to be submitted in April, will include follow-up recommendations that can further strengthen Jamaica’s operating procedures for responding to future emergency outbreaks of infectious disease.

In March, GHSC-PSM launched similar assessments in Haiti and the Dominican Republic.



Health workers in Jamaica administer repellent. *Photo credit: Michael Cohen/GHSC-PSM*

Emergency Supply-Chain Preparedness

In March, GHSC-PSM held intensive working sessions in Honduras on emergency supply-chain preparedness. The project convened 18 health supply-chain professionals from the MOH, Social Security Institute, Permanent Contingency Commission of Honduras and the Armed Forces to review, discuss

and apply the *Emergency Supply Chain Playbook* that was developed under the Global Health Security Agenda. GHSC-PSM has adapted the playbook to address Zika and other infectious disease outbreaks such as the ongoing dengue outbreak in Latin America and the Caribbean. Participants worked in subgroups to develop or strengthen protocols and plans for handling supply-chain operations for emergencies. Also, a simulation workshop covering a variety of infectious disease scenarios, such as outbreaks of Zika, influenza and Ebola, solidified key learnings from the working sessions and enabled participants to practice decision making during an unfolding emergency.

PROGRESS BY OBJECTIVE

CI. Global Commodity Procurement and Logistics



Procured \$134.9 million in medicines and other health commodities in FY 2019 Q2. Procurement values have reached over **\$1.8 billion for the life of the project.**



Delivered 1,638 line-item orders this quarter, with a value of **\$149.1 million.**



Had its strongest on-time delivery performance. **OTD was above 80 percent for the third consecutive quarter** based on the defined on-time window of 14 days before or seven days after the agreed delivery date. **OTIF was above 80 percent for the second consecutive quarter.**



Established new **long-term contract agreements for TLD with four companies** that help achieve global competitive pricing and OTD performance and increases the availability of TLD for doctors to prescribe to patients in PEPFAR countries.

CIa. Global Supply Chain: Focused on Safe, Reliable, Continuous Supply

GHSC-PSM's procurement and logistics strategy seeks to continuously identify opportunities to advance three main objectives:

- Reduce response/cycle times, lead times and transaction costs
- Increase on-time deliveries
- Balance price, delivery and quality (i.e., achieve best value)

In Q2, the project maintained strong OTD for the third consecutive quarter. We focused on the following initiatives.

Strategic Sourcing and Procurement

Through strategic sourcing initiatives, GHSC-PSM strives to promote market health, balance demand with sufficient quality-assured supply, and provide an overall better value. In Q2, GHSC-PSM:

The Global Supply Chain at a Glance

- 67 countries served
- 3,987 products in the catalog provided by 326 suppliers
- Five international freight forwarders responsible for 4,110 shipping lanes

- Established new long-term contract agreements for TLD with four companies, adding a fourth India-based generic manufacturer that had obtained U.S. Food and Drug Administration approval for TLD. The new contract agreements give suppliers long-term commitments, which achieves global competitive pricing and better OTD performance to avoid stock-outs that would affect patients' access to needed TLD.
- Procured the first multi-month dispensing packs of TLD (in 90 and 180 tablets). GHSC-PSM estimates the new multi-month dispensing packs of TLD will save more than \$1 million in product and transport costs and, more importantly, will save time and effort for the patients picking up medication as well as for health professionals, who will have more time to spend with patients.
- Executed a second RDT order allocation under the new market health-oriented strategy whereby orders are awarded based on best value for recipient countries while also working to achieve other important objectives. The order allocation strategy obtains best value for USAID, promotes diversification of the supply base to improve supply security, and incentivizes suppliers to improve their value offer over time.
- Issued awards for the first fixed-price long-term agreements for artemisinin-based finished pharmaceutical products. GHSC-PSM is currently engaged in contract negotiations.
- Awarded three manufacturers with fixed price schedules under existing agreements for the direct procurement of cotrimoxazole. This provides GHSC-PSM with the option to procure cotrimoxazole either directly from manufacturers or through wholesalers moving forward.
- Finalized the review of the essential medicines product list for 2019-2020 procurement. This involved three months of review and feedback with USAID and project stakeholders to ensure that the consolidated list reflects client needs. This list will be used for the upcoming global essential medicines request for qualifications to solicit fixed prices for 224 products across 20 countries.
- After an analysis of the increased global demand and the tight supply constraints of the pediatric formulation Lopinavir/Ritonavir 40/10mg, GHSC-PSM started procuring the new presentation of this medicine in Q2. The commodities will be delivered to the regional distribution center in order to facilitate the allocation strategy agreed with USAID.

Freight Lane Competition

The project completed the annual re-competition of freight lanes for our global supply chain to ensure the project continues to achieve globally competitive freight rates despite market fluctuations. This year, the analysis used a demand simulation that purposely varied the demand levels to simulate natural demand fluctuations. This enabled GHSC-PSM to optimize the lane awards based on the most likely scenarios. The re-compete incorporated new lanes that have been added since the last solicitation for new countries receiving funding for GHSC-PSM procured commodities, for new suppliers added as a result of our strategic sourcing activities and new commodity categories, and from our use of the regional distribution centers for additional products. The scale of these additions is summarized to the right (see box).

Freight Re-competition Adds New Countries and Shipping Lanes

Countries Added

- 14 new countries (64 served in total)

Lanes Added

- 1,386 new air lanes
- 799 new sea lanes
- 64 new land lanes

New Global Supply-Chain Tools

GHSC-PSM rolled out enhanced tools and used data to better support global supply-chain processes. These include:

- Enhanced the Requisition Order Dashboard to track orders that are on hold because of funding constraints, product availability limitations, etc. The dashboard uses predictive analytics to enable GHSC-PSM to identify potentially delayed orders and manage them to the agreed delivery date.
- Enhanced the Freight Estimation Tool to include regional pricing rules, updated product dimension information, and the latest 3PL rate card. This enables GHSC-PSM to provide more accurate freight estimates to USAID.
- Successfully completed a pilot test of the QAMS, which manages information on QA activities for malaria commodity orders that require QA. GHSC-PSM is currently inputting active and recently completed orders into QAMS.
- Proposed revising the RDT QC strategy to PMI to reflect a risk-based approach.

Global Standards

As part of the project's push to promote adoption of global standards and traceability, GHSC-PSM continued to phase in new procurement requirements for suppliers to label their commodities in accordance with GSI standards for healthcare and to exchange product master data via the GSI Global Data Synchronization Network (GDSN).

In Q2, GHSC-PSM focused on closing the information gap between existing supplier capabilities and proof of compliance. Suppliers are to incorporate Global Location Numbers (GLNs) that identify their business entities, Global Trade Item Numbers (GTINs) that identify their items and various levels of packaging, and tertiary packaging labeled with an approved barcode. At the end of Q2, GHSC-PSM had received GLNs for 55 percent of in-scope suppliers, GTINs for 41 percent of in-scope items, and 25 percent of in-scope items complied with the tertiary pack labeling requirement.

To encourage compliance, GHSC-PSM:

- **Introduced a supplier scorecard.** GHSC-PSM developed a scorecard methodology and tool to aggregate supplier compliance data into a standard set of key compliance metrics to measure supplier performance by implementation phase. This will provide the basis for feedback to suppliers on compliance against requirements and timelines in GHSC-PSM's standard terms and conditions. The scorecard was piloted with suppliers in Q2. GHSC-PSM will integrate these metrics into the broader supplier scorecard in Q3.
- **Offered supplier training.** In February, GHSC-PSM and IWorldSync co-hosted another set of webinars to encourage suppliers to prepare for upcoming Phase 2 GDSN requirements to be implemented by December 30, 2019. In Phase 2, suppliers need to submit the master data associated with the GTINs they supply through the GDSN.

Also, GHSC-PSM made further progress on implementing our first synchronization effort with a pharmaceutical company. As a pilot, Hetero Drugs Limited synchronized data for 10 trade items, which resulted in several learning opportunities on specific attributes and target market data that will inform the next iteration of GHSC-PSM's Data Sync Technical Implementation Guide, to be released in Q3.

Inventory Management

In Q2, GHSC-PSM conducted the annual stock count in the project's regional distribution centers in Dubai, United Arab Emirates and Geel, Belgium. The methodology involved having counting teams "blind count" 100 percent of the pharma and non-pharma product inventory on hand. Counters manually entered the quantity, production date and expiration date into the warehouse management system to run a comparison report against the computer-generated inventory report. The counting teams found 100 percent matches for the thousands of pallets in the project's regional distribution centers, as shown in the box. The accurate count reflects the utility of flexible yet efficient warehouse inventory management system, comprehensive standard operating procedures, and well-trained staff who can accurately track large numbers of daily transactions and promptly reconcile inventory discrepancies when they occur.

Annual Stock Count Yields 100 Percent Accuracy at Regional Distribution Centers

In the annual stock count for two of the project's regional distribution centers, GHSC-PSM found a 100 percent match for:

- 1,506 pharma pallets (Dubai)
- 2,598 non-pharma pallets (Dubai)
- 1,989 pallets (Geel)
- **6,093 pallets total**

Flexible Response to Countries' Needs

Below are a few examples from this quarter of GHSC-PSM's careful logistics management to ensure commodities reach countries when they are needed.

- In Rwanda, the project averted a potential stock-out of ARVs. The project received the emergency request in late November 2018. The shipment, which was identified as a priority, arrived in country in February. This request was executed in close collaboration with suppliers of the two products and GHSC-PSM's field office in Rwanda.
- GHSC-PSM delivered an emergency order of four pallets of HIV RTKs, valued at almost \$272,000, from the Dubai regional distribution center to the Ministry of Health in Port of Spain, Trinidad and Tobago. The RTKs had previously been procured by the GHSC-RTK program and delivered to the regional distribution center to be held as strategic stock for emergency supply to another country. GHSC-PSM repacked, relabeled and delivered the commodities to Port of Spain in less than three weeks.
- In Q2, GHSC-PSM successfully delivered the final portion of a \$1.5 million emergency order of FP/RH commodities to Yemen's major cargo seaport of Aden. Based on the project's success in getting supplies into this country despite the many challenges, USAID had requested additional shipments to ensure a steady supply of targeted FP/RH products for women and families who count on them. Ultimately, GHSC-PSM prepared four shipments from two regional distribution centers and one supplier location. Late in the process, the recipient of the order revised the order (change in commodities and batches). GHSC-PSM quickly worked with the regional distribution centers to obtain revised documents, repack the orders, and arrange prompt dispatch of the commodities.

CIb. Project Performance

In this section, we summarize findings on key indicators of global supply-chain performance. Additional detail on these and other indicators is provided in Annex A.

Timeliness of Delivery

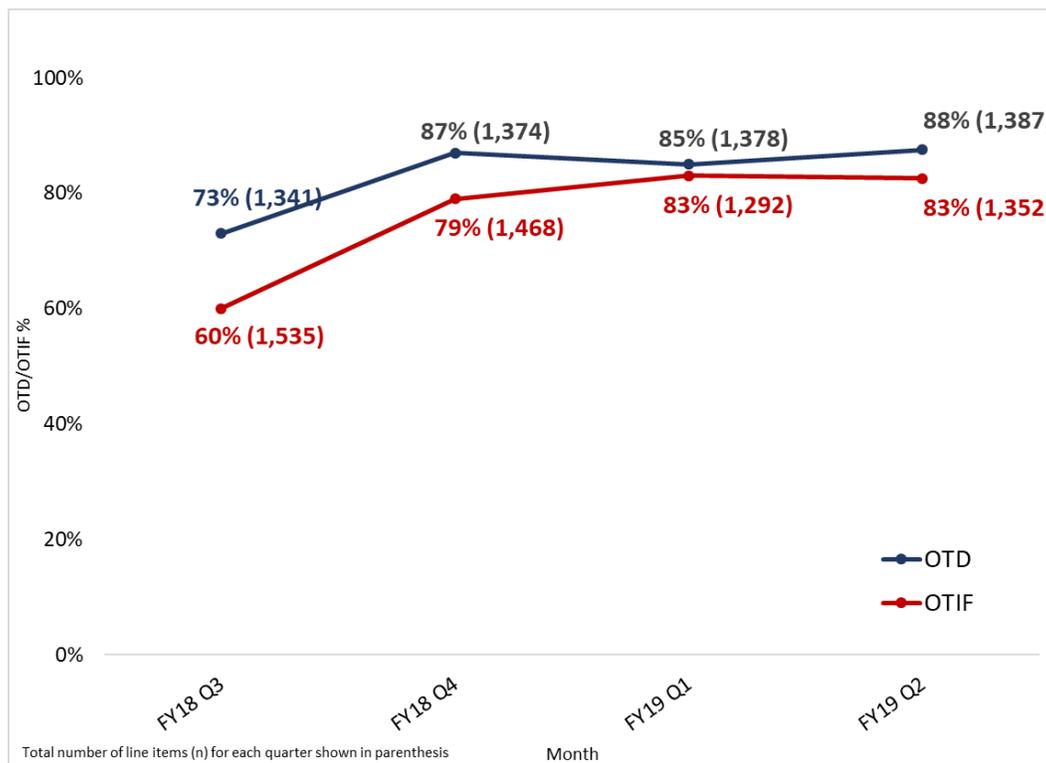
GHSC-PSM measures on-time delivery in two ways:

- OTD is the number of on-time deliveries as a percentage of expected deliveries in the period.
- The OTIF rate reflects the number of on-time deliveries as a percentage of 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.

GHSC-PSM had its best performance yet in terms of timely deliveries, achieving OTD of 88 percent and OTIF of 83 percent for the quarter, with a backlog of 1.9 percent of annual volume. In January 2019, GHSC-PSM achieved 100 percent OTD for malaria commodities for the first time. The project also achieved 100 percent OTD for FP/RH commodities for two consecutive months (January and February).

Exhibit 7. OTD and OTIF over the Last Four Quarters



Cost-Savings

GHSC-PSM works hard to achieve best value, including cost-savings, in procurement and delivery for the U.S. Government and the countries and populations we serve.

Savings on commodities

Our strategic sourcing work—from ensuring competition to negotiating with suppliers armed with detailed knowledge of costs, concluding fixed price contracts, having vendors manage inventory for the

project, and bundling goods and services—has generated \$89.9 million in cost-savings on commodity procurements to date. These are actual cost-savings on commodities procured to date, not projections of savings in the future. They are not comprehensive; rather, they represent savings on core but not all commodity categories. Commodity cost-savings are measured as the difference between what GHSC-PSM would have paid for commodities at baseline price levels and what GHSC-PSM actually paid for those commodities in the current period. The first half of FY 2017 is considered the baseline period for most products.

Savings on logistics

In addition to saving money on commodity procurement, GHSC-PSM has worked to reduce warehousing and logistics costs. To save money on warehousing, GHSC-PSM consolidated five inherited warehouses to three (in Belgium, South Africa, and the United Arab Emirates). GHSC-PSM determined the number and location of our regional distribution centers by conducting a network optimization that sought to minimize warehousing and transportation costs while maintaining the flexibility required for a dynamic global supply chain. GHSC-PSM also minimized costs by negotiating discounted per-pallet warehousing rates for the new regional distribution centers. These logistics savings amount to \$6.2 million since we implemented the network optimization, starting in April 2018.

C2. Systems Strengthening Technical Assistance



GHSC-PSM **assisted 41 countries** with health supply-chain systems strengthening, and **supported 34 country or regional offices**.



GHSC-PSM provided **technical feedback on 74 plans** to strengthen national supply planning capabilities.



GHSC-PSM was one of the **first responders** following **Cyclone Idai's** devastating landfall on the southeastern coast of Africa, arranging **emergency deliveries by aircraft** and working with USAID and MOH staff to transfer affected product to alternative storage locations. Also, in Haiti, the project distributed ARVs by airplane following political unrest to ensure no patients missed their treatment.

GHSC-PSM's strategic goal is for every country to have a country-led health supply chain that is integrated, optimized, accountable, agile, lean and able to sustainably supply quality products to all citizens. Underpinning this, health supply-chain systems strengthening technical components support field office teams in defining strategies aligned with local context that can be realistically achieved. Emphasis is placed on automated data capture and real-time end-to-end visibility, pharmaceutical-grade infrastructure, and efficient distribution across countries. Each supply chain should be managed by supply-chain professionals dedicated to quality improvement, and, where possible, look to develop strategies to outsource functions to accountable private-sector providers.

Different health areas fund health supply-chain systems strengthening assistance in each country. The costs of technical assistance and supply-chain system strengthening activities are proportionally shared across health task orders (HIV, malaria, FP/RH and MNCH). Cost-sharing formulas are reviewed annually to verify that each task order's share of the total cost for technical assistance remains equitable. Systems strengthening efforts associated with health area-specific activities (e.g., LLIN distribution for malaria or viral-load scale-up for HIV) are supported entirely by the relevant health area.

C2a. Activities and Achievements

Following are highlights of where and how GHSC-PSM applied health supply-chain systems strengthening approaches globally and in specific countries this quarter.

Workforce Development

GHSC-PSM is strengthening public health supply-chain workforces through 22 field offices. These interventions build sustainable workforces through professionalization and systematic approaches to workforce development, putting countries on a path to self-reliance.

In January, GHSC-PSM hosted a webinar on how to address high staff turnover rates with 70 participants from national and international organizations around the globe. The project presented seven leading ways to reduce staff turnover that require minimal investment:

- Provide supportive leadership
- Empower the individual
- Create a positive environment
- Encourage teamwork
- Recognize and reward
- Knock out boredom
- Eliminate dissatisfaction

GHSC-PSM also published its second supply-chain management resource review through the International Association of Public Health Logisticians (IAPHL), with resources that support the journey to self-reliance including tools, web resources, reports, journal articles, open editorials, case studies and videos on improving supply chains and insights from the private sector.

One of the project’s most effective workforce development interventions is supporting pre-service training. Achievements in Q2 include:

- Providing technical and financial support to the MOH in **Angola** to initiate a public health supply-chain management post-graduate certification course at the National School of Public Health. This is being done in collaboration with Gavi. In Q2, the MOH approved funding to support course facilitators for several years. Recruitment of an initial 35-student cohort was underway at the end of the quarter, with the course scheduled to begin in late April.
- Developing training materials on a new integrated LMIS to be incorporated into **Burkina Faso’s** National School of Public Health (NSPH) 2019 curriculum. Pharmacist assistant, logistician, nursing, midwifery and nurse aid students will be taught to navigate the LMIS standard operating procedures. In Q2, GHSC-PSM held a five-day training of 50 NSPH teachers who will administer the course.
- Supporting the NSPH in **Burkina Faso** to educate 14 masters-level health logistics students in quantification and supply planning for health commodities. After graduation, students are likely to be assigned to coordinating committees for managing health commodities, so these trainings are crucial and replace in-service trainings at reduced expense to the MOH.
- Conducting a four-day training on supply-chain management best practices to better prepare graduates from **Burundi’s** National Institute of Public Health who are entering the workforce. Attendees included 38 students from pharmacies and laboratory departments, all of whom received certificates.

Supply-Chain Systems Strengthening Technical Areas

- Forecasting and supply planning
- Governance and leadership
- Global standards
- Health-care waste management
- Laboratory networks
- Management information systems
- Process improvement
- Procurement
- Quality assurance
- Strategy and planning
- VMMC
- Warehousing and distribution
- Workforce development

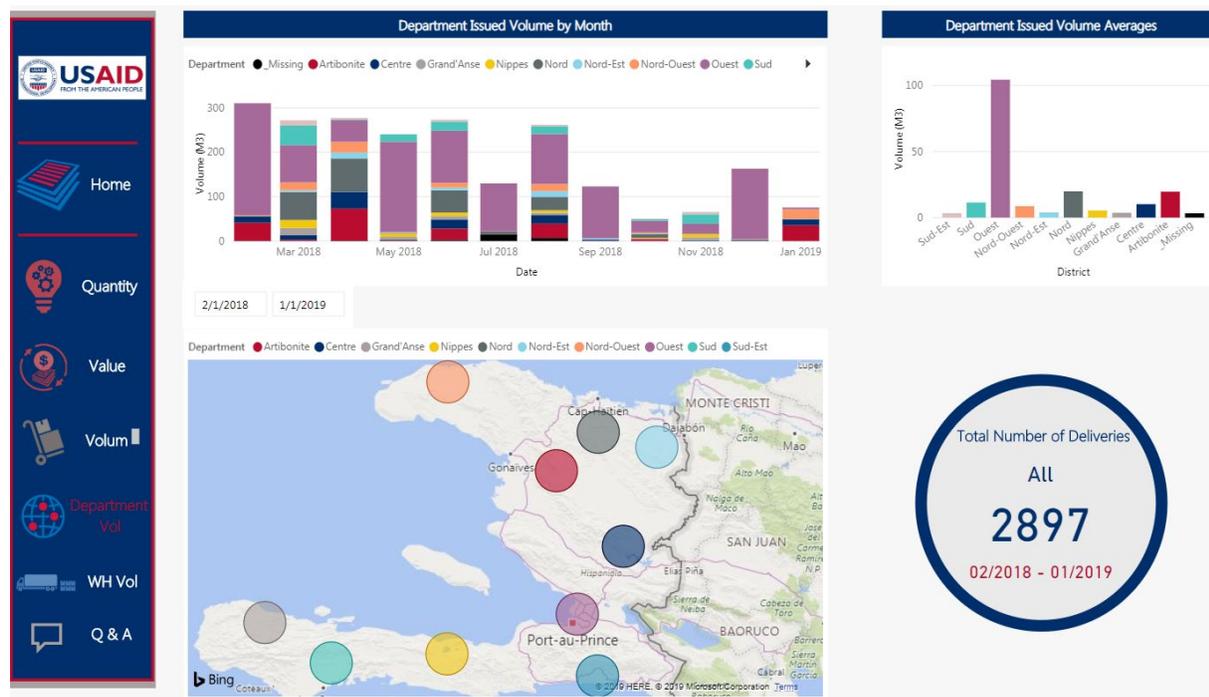
A lack of supply-chain management professionals, particularly at mid levels, is found across most supply-chain sectors. To develop an understanding of the broader supply-chain labor market, GHSC-PSM conducted, for the first time, a whole-of-supply-chain-labor-market-analysis in **Rwanda**. This analysis provides a better understanding of supply and demand factors in Rwanda and recommends interventions to strengthen the availability and use of supply-chain professionals in public health and other sectors.

Ultimately, the report will demonstrate the benefits of taking this approach in other country contexts as well.

Warehousing and Distribution

GHSC-PSM continues to improve country warehousing and distribution systems through 33 field offices. Our approaches seek to improve data-driven decision making across the supply chain, optimize in-country warehouse networks, and increase efficiencies in warehousing and distribution operations.

In **Haiti**, GHSC-PSM is increasing visibility into commodity status and flow through the central warehouse by semi-automating the process to collate, clean and prepare data on commodities received at the warehouse, measure stock on hand, and issue data from the warehouse management system. Once the data are processed, a searchable dataset known as the Visualizing Inventory Data Dashboard (see graphic on next page) is generated, including inventory turnover indicators to determine the speed that commodities are moving through the warehouse, with the ability to identify slow movers and closely monitor key products for Haiti. This process of semi-automation will be replicated in other GHSC-PSM countries, with plans to roll out next in **Guinea** and **Uganda**.



Screenshot from Haiti's Visualizing Inventory Data Dashboard

In **Guinea**, the MOH embarked on an ambitious initiative to regulate its pharmaceutical sector, starting by mapping the private pharmaceutical setting including medicine wholesalers, pharmacies and medicine promotion agencies. GHSC-PSM is assisting the National Directorate of Pharmacy and Medicine to map these entities' locations in every region using GIS technology, and determine their characteristics, distribution between urban and rural areas, and compliance with pharmaceutical law. So far, over 58 percent have been mapped (see box). The maps will guide decisions on where to establish new pharmacies to ensure equitable geographic coverage. The mapping will facilitate

Guinea Uses GIS to Map Pharmaceutical Settings

Of 618 estimated or potential sites, 360 were mapped in Q2 as part of the country's steps toward regulating its pharmaceutical sector.

regulation and harness these pharmacies' potential to deliver positive health outcomes and be more involved in rational drug use initiatives.

In **Honduras**, warehouse conditions and inventory management practices are monitored through quarterly clinic visits. In Q2, GHSC-PSM and the MOH began using approved supervision guidelines and measuring compliance with mandated storage conditions, inventory control, accuracy of records and logistic reports, and use of information systems. The three main hospitals in the Tegucigalpa region received an average compliance score of 88 percent. The development of standard clinic evaluation criteria and establishment of clear standard operating procedures have been key to improving clinic adherence to best practices and to assessing their performance. Next, GHSC-PSM will implement an online application to monitor warehousing conditions and inventory management best practices. Using handheld devices, this low-cost application will allow program managers to track warehouse conditions and inventory management practices in order to better monitor commitments to improvement plans. Through improved visibility of warehouse and inventory management practices, Honduras can better ensure that medicines are kept in appropriate conditions and at sufficient stock levels to meet patient health needs.

In February, the President of the Republic of **Zambia** launched the USAID-supported Medical Stores Limited Regional Hub in Mpika, Zambia, to enhance facility-level commodity security. The state-of-the-art hub was constructed at a total cost of \$2 million by the UNDP, with funding from the Global Fund. USAID invested more than \$575,000 for GHSC-PSM to outfit and operationalize the hub. The hub will enable efficient last-mile distribution and improve the availability of health commodities.



President Lungu (third from right) commissions the Mpika Regional Hub in Zambia. Photo credit: GHSC-PSM

Two key warehousing and distribution analyses were completed in **Ghana** and provided to stakeholders in this quarter. These were:

- **Network optimization** and supplementary analysis for a recommended location and size for hubs of a central-level network. The analysis looked at options from a one-hub to a three-hub solution, and provided likely costs, risks and benefits of the different options. This analysis supports the replacement strategy for the central warehouse that was destroyed in a fire in 2015.
- Last-mile delivery costing analysis **comparing cost and performance of using 3PLs for last-mile delivery** against using the regional medical stores' (RMS) own vehicles for delivery or health facilities doing their own pick-ups. The analysis found that the 3PL approach resulted in either lower or similar cost (for some facilities it was 31 percent less costly and for others, similar cost, while delivery by RMS was 4 percent less costly). It also found the 3PL had better performance against RMS delivery and

“The last-mile distribution has significantly smoothed RMS operations, as all activities are planned and implemented in a coordinated manner.”

– RMS Manager in Ghana

facility pick-up and (with a 30 percent lower stock-out rate). The analysis further demonstrated the value of using 3PLs to support last-mile distribution (see quote).

Emergency Response

GHSC-PSM manages warehousing and distribution to health facilities in Haiti, many of which are in remote areas of the country, and works with a 3PL to ensure commodities arrive reliably. Protests in **Haiti** created an unstable security situation in February that closed businesses, blocked roads and disrupted supply of medicines. In light of closures, GHSC-PSM and regional suppliers quickly identified which health facilities and hospitals were at risk of stock-out and arranged emergency transportation by aircraft. In four days, more than 15 sites were resupplied with 4.5 months of ARV stock, preventing the interruption of HIV/AIDS treatment.



Jackie Ndebele (center), provincial pharmacist, Manicaland Province, Ministry of Health and Child Care, works to ensure an uninterrupted supply of medicines and health commodities. She coordinated response to the emergency caused by Cyclone Idai and helped save lives by arranging for medicines and surgical sundries to be air-lifted by helicopters for distribution in Chimanimani District. *Photo credit: GHSC-PSM*

Flexible, resilient supply chains can help weather any storm. On March 14, Cyclone Idai made landfall near the port city of Beira, **Mozambique** with winds exceeding 105 miles per hour. Warehouses that serve as a lifeline for essential medicines and health commodities were significantly damaged. In the aftermath of the storm, roads flooded, bridges became impassable, and structural damage to warehouses and buildings managed by the central medical store meant critical supplies could not reach people. GHSC-PSM was one of the first responders, working with USAID and MOH to transfer affected product to alternative storage locations, reestablish the electronic warehouse management system, and coordinate incoming humanitarian donations. (See USAID feedback in box.)

“GHSC-PSM was one of the very first responders to the cyclone and has been sending daily updates with commodity and supply chain–related news and activities since the day after the storm...It is their support that is helping to ensure some organization of the chaos that is ensuing with a massive influx of... humanitarian donations.”

Leah Hasselback, Senior Health Commodities Advisor, USAID/Mozambique

Access to up-to-date information on infrastructure is vitally important as Mozambique works to recover and rebuild. GHSC-PSM, along with Project Last Mile, is collaborating with the Humanitarian OpenStreetMap Team (HOTOSM) to provide our latest GPS and road condition data collected before the cyclone. HOTOSM will use these data to build detailed maps of Mozambique's road networks that include information that cannot be seen in satellite images. For example, the GPS shows which roads are navigable and the average travel speed along that road. HOTOSM will make the road network data available to everyone on Open Street Map, a free online editable map of the world.

Although damage from Cyclone Idai was less severe in **Zimbabwe**, GHSC-PSM was also there supporting emergency efforts, helping get supplies—including medicines, emergency supplies, and 160,000 LLINs—to the districts that were most impacted by the storm.

Management Information Systems

GHSC-PSM continues to strengthen country supply-chain information systems through 32 field offices. Although at different levels of supply-chain maturity, these countries are on a path to developing end-to-end data visibility, with data-driven mechanisms to support evidence-based decision making.

One example of this is **Angola**. GHSC-PSM and the Angolan MOH began implementing a new eLMIS in October 2017. Workshops were held to gather information on requirements, build systems knowledge, perform training and validate configuration. In March 2019, an OpenLMIS called SIGLOFA (Sistema de Informação de Gestão a Logística e Farmacêutica de Angola) was piloted. The pilot, which will run for several months before the system is launched nationwide, includes warehouses and hospitals in three provinces and the central medical stores. GHSC-PSM trained 37 people across six sites to use the new system.

Governance, Financing and Leadership

With GHSC-PSM support, countries seek to achieve a responsive health supply-chain system led by a strong team with managerial capacity, institutionalized checks and balances, robust governance oversight, open civil society involvement, and cost-effective and transparent financing mechanisms. GHSC-PSM strengthens governance, financing and leadership through 18 field offices.

GHSC-PSM delivered the pilot *Supply Chain Management Leadership and Change Management Course* in **Kenya** to a cohort of over 40 attendees, including country-level head pharmacists, nurses and counterparts from the GHSC-PSM TO5 Afya Ugavi project. The course goals were to:

- Prepare county health management teams to become more effective change management leaders
- Enable county pharmacists and nurses to lead, advocate for, monitor and support activities to strengthen supply chain management to improve health results

Supply-Chain Management Leadership and Change Management Course includes:

- Pre-course skills self-evaluation
- Pre-course reading assignments
- One-day orientation for facilitators
- Four-day workshop for participants
- Capstone project
- Post-course self-evaluation
- Certificates of completion
- Post-course webinars and mentoring of county-level action plans

Feedback from attendees confirmed that the training materials were well received and relevant to the local context. The course is now available to be delivered in other countries and can be tailored to individual situations.

Burma's supply chain management system is considered one of its health sector's most challenging issues. The Ministry of Health and Sports (MOHS) developed a National Supply Chain Strategy for 2015-2020 and a National Health Plan for 2016-2021. Because these two strategies were not synchronized, strategy implementation was severely delayed until 2018. To align the two strategies and fill subsequently identified gaps, GHSC-PSM is developing a Supply Chain Operational Plan (SCOP). This includes a costing plan that will mobilize funding for implementation of the supply-chain system. In Q2, the project held consultative meetings with MOHS officials and implementing partners and introduced a roadmap for developing the SCOP. Once the plan is fully developed, the MOHS can implement supply-chain activities that are in line with the National Health Plan's 2016-2021 timeline and costed accordingly.

GHSC-PSM officially launched the *Implementation Guidance for Pharmaceutical Traceability Leveraging GSI Global Standards*²² in Q2, the project's first technical approach for global standards and traceability work at the country level. This provides guidance to countries on how to implement a vision and strategy roadmap for pharmaceutical traceability. The roadmap is tailored to the country environment and considers the key operational components required for successful implementation. The guide is complemented by a new two-page *Global Standards and Traceability Summary*²³ that describes the approach, outcomes, illustrative activities to include in workplans, and relevant resources.

In Malawi, the project undertook awareness and advocacy efforts to promote GSI standards and scoping activities for a GSI-enabled National Product Registry. The registry will serve as the primary source of truth for product master data, enabling stronger interoperability across disparate systems including OpenLMIS, the Kuunika Project, District Health Information Software Version 2, and the warehouse management system. GHSC-PSM hosted a training on GSI standards, traceability and master data for stakeholders across the health sector and used feedback to develop product registry requirements, interoperability options, a product master prototype, and recommendations for data governance.

Procurement

Procurement of medicines and health commodities accounts for 40 to 60 percent of health system expenditures in low- and middle-income countries. GHSC-PSM helps countries analyze the enabling environment for procurement at the policy and institutional levels, improve procurement efficiencies and reduce procurement delays. The project provides procurement system strengthening through 32 field offices.

In **Central America**, GHSC-PSM conducted a cost-efficiency evaluation of available procurement agencies. After learning the results, **Guatemala's** MOH and Social Security Institute signed a cooperation agreement that commits to procuring medicines and health commodities using a joint negotiation mechanism for the first time. The project facilitated discussions between the two organizations to define harmonized lists of products and medicines. They will negotiate prices, initiate

²² <https://www.ghsupplychain.org/implementation-guidance-pharmaceutical-traceability-leveraging-gsi-global-standards>

²³ <https://www.ghsupplychain.org/health-systems-strengthening-global-standards-and-traceability>

the prequalification process, and create technical sheets for new listed medicines. This collaboration will allow both institutions to optimize their financial resources through more competitive prices on public health products and will create a standard procurement process overall, ultimately putting Guatemala on a path to a self-reliant health system.

A lack of access to reliable information on prices and availability of medicines significantly hinders governments in constructing sound pricing policies or evaluating their impact. National policies, pricing, and procurement strategies are critical to ensuring affordability of medicines. The Rwandan MOH, with the support of GHSC-PSM, is developing a pharmaceutical pricing policy and process for determining prices at different levels of the health supply chain. In Q2, GHSC-PSM held a workshop for the MOH and other stakeholders including public and private organizations to discuss how a national pharmaceutical pricing policy can be developed and aligned with the country's vision and priorities. Participants agreed to jointly develop regulations and measures, for implementation over a five-year period, that have a direct impact on pharmaceutical prices. These regulations and measures will be shared with the MOH for validation.

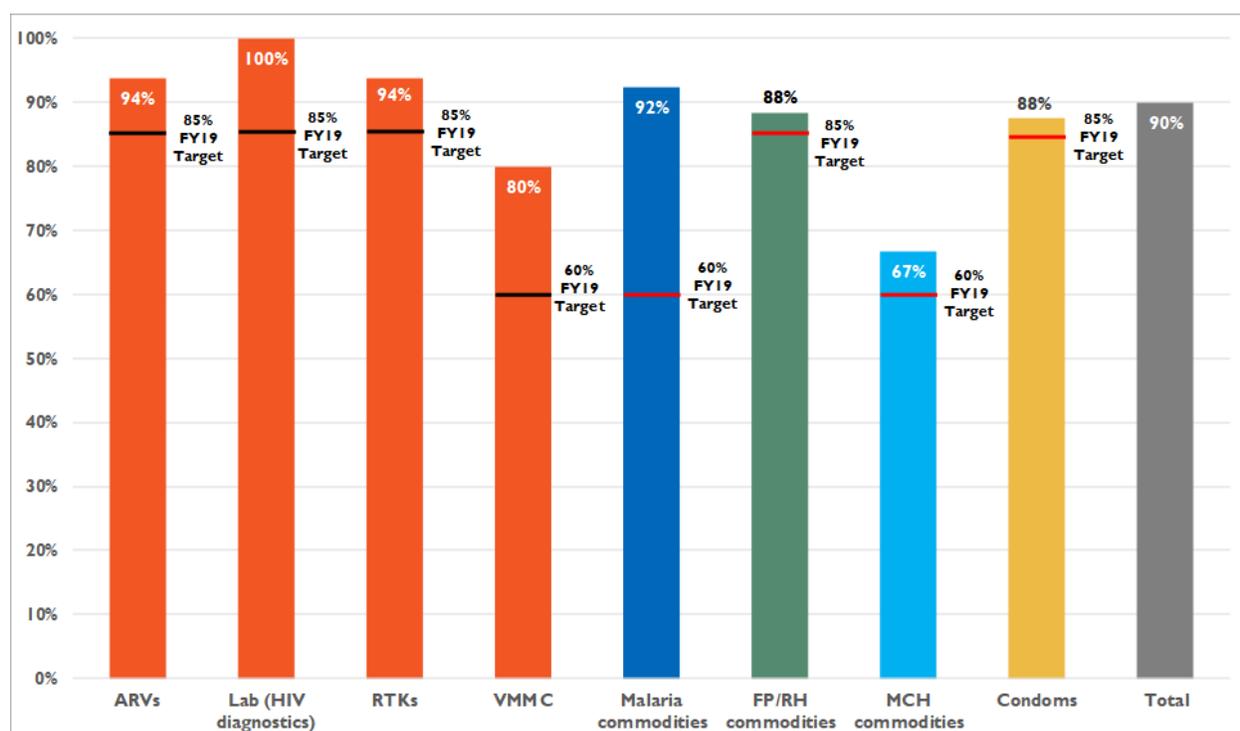
C2b. Project Performance

GHSC-PSM collects and analyzes data on a variety of indicators of national supply-chain system health to understand the environment in which we operate and to help us calibrate our work. These indicators also help establish priorities for our health supply-chain systems strengthening support and, over time, will allow us to assess the outcomes of our technical assistance. Values for these indicators appear in Annex A. To facilitate understanding of progress in each country, health supply-chain systems strengthening indicators are presented country by country and include important contextual information for each country. Dashboards with these country-specific indicators are made available for GHSC-PSM field offices to explore with in-country stakeholders.

Percentage of Countries Conducting Quarterly Supply Plan Updates

Below, in Exhibit 8, we present results for one indicator—percentage of countries conducting quarterly supply plan updates—that is critical to ensuring procurements are planned well ahead so that adequate stock levels can be maintained in the supply chains that we support.

Exhibit 8. Percentage of Required Supply Plans Submitted During Q2 by Commodity Group



Under the quantification paradigm supported by GHSC-PSM, supply plans take a regularly updated, forward-looking view of demand for 18 months. This **comprehensive, systematic and long-term approach to supply planning** provides visibility into monthly demand even if a single quarterly update is not submitted.

Countries develop and submit to GHSC-PSM supply plans for up to eight commodity groups. Supply plans are the source of country-level procurements, based on projections of consumption and inventory. For Q2, GHSC-PSM received 114 supply plans from 24 countries, including 88 required plans.²⁴ The team has reviewed and provided technical feedback on 74 supply plans, with reviews of late submissions ongoing.

GHSC-PSM monitors supply plans quarterly to identify common errors and omissions across countries or commodity categories, to assess results from earlier improvement efforts, and to identify areas for additional guidance and mentoring. The quality of the plans is assessed against 14 criteria, with the reviews generating actionable recommendations for improvement. The supply plan reviews also identify issues with future orders, allowing the field offices to take pre-emptive actions to minimize the impact.

²⁴ Some supply plans that GHSC-PSM receives are not required because GHSC-PSM does not have a presence in the country or because GHSC-PSM does not procure the items covered by those plans. These additional plans nonetheless provide the project with insight on the market size and scope for various health commodities and can be shared with global stakeholders.

Capacity Building

The number of people trained provides a basic illustration of where the project is focusing our capacity-building resources and where we might expect related supply-chain outcomes to improve. The project trained a total of 3,221 trainees (1,494 men and 1,727 women) in Q2.

Most capacity-building activities were cross-cutting, meaning they addressed topics relevant to multiple health areas. By funding source, 42 percent of trainees were trained with HIV/AIDS funding; 12 percent with malaria funding; 11 percent with FP/RH funding; and 36 percent with MNCH funding. Capacity development focused on warehousing and inventory management, LMIS, governance and finance, transportation and distribution, and human resources.

C3. Global Collaboration



In Q2, GHSC-PSM finalized and **published the *Global Standards Technical Implementation Guideline for Global Health Commodities***, endorsed by the Global Drug Facility (Stop TB), Global Fund, UNDP, UNFPA, USAID, PEPFAR and PMI.



GHSC-PSM continued to **participate actively in global fora**, sharing data and promoting new approaches.



GHSC-PSM completed a study with UNFPA to understand country preferences for packaging of condoms and contraceptives and how different donor packaging affects country supply chains.

GHSC-PSM's global collaboration in Q2 focused on strategic engagement, market dynamics and other research, awareness and advocacy efforts. The scale, scope and complexity of managing a global supply chain require us to collaborate with many global and local partners to ensure the availability of medicines and other health commodities. By integrating our work across health sectors and sharing information, resources, activities and capabilities, we can achieve together what we could never achieve alone.

As described throughout this report, GHSC-PSM engages actively with other global players to promote the availability of medicines and other health commodities. We do so by providing supply-chain expertise to important global fora, working with other global partners to allocate scarce supply, promoting harmonization of standards and practices, and working to manage commodity stock information as a global good. Our contributions are recapped below.

Global Standards

Use of global standards has been a strategic enabler of supply chain efficiency, effectiveness and innovation for numerous industries across the globe. Adoption of global standards has become a central part of the entire GHSC program to reduce costs, enhance efficiencies, and improve the availability of health commodities worldwide. GHSC-PSM is phasing in a requirement that suppliers identify and label commodities using GSI global standards for health care.

Over the past two years, USAID and GHSC-PSM have rallied donors and procurement agents to align around a common set of standards for identification, labeling and data exchange for use in donor-supported countries. In Q2, the project finalized and published the *Global Standards Technical Implementation Guideline for Global Health Commodities*. The guideline was endorsed jointly by the Global Drug Facility (Stop TB), the Global Fund, UNDP, UNFPA, USAID, PEPFAR and PMI. This document is an important milestone in achieving procurement harmonization across the community, sending a strong signal to suppliers about the demand for standardized identification, labeling and data exchange. It paves a path to a future where countries can rely on a standardized set of data and labels to enable automation of supply-chain processes to support improvements in efficiencies and data quality.

Also, GHSC-PSM co-presented with IDA Foundation on GSI global standards implementation and submitted a poster at the Global GSI Healthcare Conference in Noordwijk, Netherlands.

Other Strategic Engagement

Providing Supply-Chain Expertise to Important Global Fora

GHSC-PSM represents the supply-chain point of view in key global meetings to ensure donors and governments consider the supply chain in program planning. This helps ensure timely access to the medicines and commodities their programs need. Participating in these meetings also helps GHSC-PSM stay current with emerging requirements so the project is ready to respond to global health commodity needs. Specifically, this quarter, as described in Sections BI through C2, GHSC-PSM:

- Hosted the WHO ARV forecasting pre-meeting and presented on topics including a specific ARV formulation for the pediatric market. Participants included the largest ARV procurers, donors and other stakeholders.
- Launched the TraceNet Working Group to develop global standards-based requirements for LLINs. The project coordinates the group, which is co-chaired by USAID, the Global Fund and UNICEF.
- Attended the RHSC General Membership Meeting in Nepal, where GHSC-PSM led the RHSC Systems Strengthening Working Group, demonstrated supply-chain challenges through an interactive activity, and presented on the Global FP VAN, the Contraceptive Security Indicators dashboard, and eLMIS implementation in Pakistan.
- Participated in the ARV Procurement Working Group annual technical meeting with USAID, UNITAID, the Global Fund, CHAI, WHO and others to assess key strategies around obtaining high-demand or difficult-to-source ARVs that patients need.
- Attended the Total Market Approach Working Group meeting hosted by PSI. GHSC-PSM is studying markets and collaborating with partners to better understand what strategies will be successful within a country to improve patients' choice of contraceptive methods.
- Began a two-year term on the FP2020 Performance Monitoring and Evidence Working Group and attended a meeting in New Delhi, India.
- Hosted a webinar on how to address high staff turnover rates with 70 participants from around the globe representing a range of national and international organizations.

Collaborating to Allocate Scarce Supply

Through our PPMR processes, the project supported donor review and planning around commodity overstocks and low stocks. For example, in Q2, using PPMR data and working with CARhs, the project expedited shipments to Madagascar and DRC to prevent stock-outs and procured more than 400,000 syringes for DMPA that could have gone unused and expired without the syringes. Separately, GHSC-PSM:

- Coordinated the HIV/AIDS Supplies Group consisting of USAID and the Global Fund to better collaborate on ARV supplies.
- Engaged with the New Horizons Collaborative as part of efforts to provide treatment for children living with HIV who have failed first- and second-line ARV options.

Promoting harmonization

GHSC-PSM shares our methods with the global community to promote broad improvement in product availability. For example, this quarter, GHSC-PSM reported observations from a packaging harmonization study for condoms and contraceptives. For more information, see the market dynamics section below.

Managing commodity stock information as a global good

GHSC-PSM serves as an information resource on commodity availability, sharing our supply-chain information and collecting and managing additional country data on stocks. As described in Section B, through the PPMR process in the HIV, malaria, and FP/RH sectors, GHSC-PSM manages collection of data on country-level stocks of critical medicines and health commodities. These data are shared with countries and donors in user-friendly dashboards to inform planning and prioritization. Every quarter, based on this information, the global community considers actions to address imbalances (such as redistributing stock to mitigate stock-outs and minimize waste).

GHSC-PSM is an active participant in the Global FP VAN, which launched in Q2 with the goal of increasing supply-chain visibility and improving collaboration between USAID and other major procurers of contraceptives. Through the Global FP VAN, GHSC-PSM and partner organization users will access information, identify risks, discuss issues, and ultimately make informed decisions for commodity procurement. For more information, see Section B3.

Research and Innovation

GHSC-PSM is engaged in leading-edge research that helps shape global markets to meet countries' needs for medicines and health commodities and that explores better ways to get these products to the people who need them. For example, in Q2, the project published its second supply-chain management resource review through the extensive IAPHL network, sharing resources to support the journey to self-reliance.

Market dynamics

The project continued a robust program of research into the health commodity marketplace. Significant work continued on two efforts: a contraceptive packaging study and total market approach research.

Condoms and contraceptives packaging rationalization study. GHSC-PSM continued a study of packaging among major procurers of condoms and contraceptives. In Q2, case study findings were that packaging of otherwise identical products can vary based on supplier, procurement agent or program need. As a result, some countries manage multiple stock-keeping units in their in-country supply chains for otherwise interchangeable products. Findings were shared with USAID and UNFPA and presented at a session hosted by USAID in March. For more information, see Section B3.

Total market approach. To ensure access to FP/RH commodities and supplies, GHSC-PSM is studying the markets and collaborating with partners in several countries to understand the landscape for those products. Through this total market approach effort, the project will better understand what strategies will be successful within a country to improve method choice. For more information, see Section B3.

Country-level innovations

Examples of innovations at the country level are summarized below. They include approaches, products and technologies that are new to the specific country.

New approaches

- **Ghana:** In Q2, the project studied factors influencing the motivation, or lack thereof, of the health supply-chain workforce. Research will help identify the root causes of low motivation and serve to determine proposed structural interventions for improved performance.
- **Rwanda:** GHSC-PSM conducted a whole-of-supply-chain labor market analysis to better understand supply and demand factors as well as recommend interventions to strengthen the availability and use of supply-chain professionals in public health and other supply-chain management sectors.
- **Angola:** In March, the project launched an OpenLMIS-based pilot program called SIGLOFA. The pilot includes warehouses and hospitals in three provinces as well as the central government medical procurement center.
- **Malawi:** The project raised awareness, advocated for global standards and carried out scoping activities for a GSI-enabled national product registry. The registry will be the primary source for providing product master data and enabling stronger interoperability across disparate information systems. GHSC-PSM hosted a training on global standards, traceability and master data for stakeholders across the health sector and used feedback to develop product registry requirements, interoperability options, a product master prototype, and recommendations for data governance.
- **Burma:** GHSC-PSM met with stakeholders and implementing partners to introduce a development roadmap for a Supply Chain Operational Plan. The plan will help the National Ministry of Health and Sports implement supply-chain activities in line with the National Health Plan.
- **Guatemala:** MOH and the Social Security Institute committed to procuring health commodities using a joint negotiation mechanism for the first time. GHSC-PSM facilitated discussions between the two organizations to define harmonized lists of products and medicines. This collaboration provides both institutions the opportunity to optimize their limited financial resources through more competitive prices on public health products and to create a standard procurement process for Guatemala overall.



Participants representing several stakeholder agencies in Honduras work on Quick Response Guides during a session on emergency supply-chain preparedness. Photo Credit: Olivia Sanchez/GHSC-PSM

- **Honduras:** GHSC-PSM led training sessions on emergency supply-chain preparedness for supply-chain stakeholders, including the Ministry of Health and the armed forces.
- **Nigeria:** GHSC-PSM began “rapid last-mile distribution,” a new initiative to resupply health facilities identified as high-volume sites. The program uses historical LMIS data to determine reorder quantities rather than waiting for health facilities to submit LMIS reports with order quantities. This is expected to help the project reduce the burden of last-mile distribution in terms of volume of health commodities and the amount of time during routine distribution.

New technologies

- **Cameroon:** GHSC-PSM distributed 255,750 LLINs to more than 600 sites using TransIT, a cloud-based software system that enables user access to transportation information anytime, anywhere, and ePOD, an application that allows proof of delivery receipts to be signed and archived electronically.
- **Guinea:** GHSC-PSM is assisting the National Directorate of Pharmacy and Medicine in evaluating pharmaceutical sites throughout the country and mapping them using GIS technology to optimize the pharmaceutical network.
- **Haiti:** The project collated and prepared data on health commodities received at the warehouse to generate a searchable dataset, known as the *Visualizing Inventory Data Dashboard*. This dashboard is used to identify slow-moving items and to closely monitor key products.
- **Indonesia:** GHSC-PSM Indonesia improved the availability of viral-load and multidrug-resistant TB data through implementing the laboratory data connectivity software DataToCare in 20 selected health facilities. The software enables the recording of patient testing data, which is synchronized with the national TB information system (e-TB Manager), providing a real-time dashboard data display. The piloting of the DataToCare Installation enables viral-load data results to be available in real time.

Building Awareness and Advocacy for Change in Supply-Chain Issues

GHSC-PSM works to build awareness of key supply-chain issues and advocates for change around them at global and country levels. For example, GHSC-PSM field offices:

- Successfully advocated with the Ministry of Health in Mozambique to adopt a countrywide policy to introduce generic contraceptives. For more information, see Section B3.
- Undertook awareness and advocacy efforts in Malawi to promote GSI standards and scoping activities for a GSI-enabled National Product Registry. For more information, see Section C2.

Collaborating Across GHSC-PSM Health Areas

The GHSC-PSM contract combines procurement and supply-chain support for all global health areas into one project for the first time. This consolidation has generated benefits for all health areas that are felt every day. GHSC-PSM continued to leverage our methods, approaches and infrastructure across all four health areas. As an example, during the past year, GHSC-PSM piloted a new sampling methodology and tools for the EUV survey for malaria, with added modules for FP/RH and MNCH commodities. The EUV survey provides timely and actionable information on stock levels, storage and use of pharmaceuticals at service delivery points for detecting and correcting issues surrounding implementation of health programs. During Q2, GHSC-PSM hosted an EUV Summit to present the revised EUV methodology and tools to representatives of USAID health elements. The participants

reviewed the revised EUV methodology, tools, training materials, and a new analysis tool. Follow-up discussions on the sampling methodology, improvements to the dashboard, and broader use of EUV data are ongoing.

Collaborating with Other GHSC Projects

GHSC-PSM is a member of the GHSC program family and interacts regularly with the other GHSC projects. Below we summarize examples of collaboration with other GHSC projects in Q2.

GHSC-RTK

As described in Section BI, GHSC-PSM supports the GHSC-RTK project (implemented by RMI) in ensuring availability of HIV RTKs. Our extension of supply planning efforts to cover RTKs and our regular sharing of RTK supply plans give the GHSC-RTK project good visibility into needs for its product 18 months into the future.

As a specific example of collaboration with GHSC-RTK, in Q2, GHSC-PSM delivered four pallets of RTKs, valued at \$271,870, from the Dubai regional distribution center to the Ministry of Health in Port of Spain, Trinidad and Tobago (see Section C1a for additional detail).

GHSC-QA

GHSC-PSM interacts continuously with GHSC-QA (implemented by FHI 360) to coordinate QA efforts for HIV, FP/RH and MNCH commodities. We are working closely with the GHSC-QA project to find creative ways for completing QA processes at different logistics stages to shave cycle time and improve on-time delivery performance. GHSC-PSM also collaborated with GHSC-QA to address QA challenges identified with a major LLIN supplier this quarter.

GHSC-BI&A

The GHSC-Business Intelligence and Analytics (BI&A) project (implemented by IntelliCog) aggregates data from all GHSC projects and previous supply-chain contracts so that USAID and external parties can examine performance. GHSC-PSM continued to work with GHSC-BI&A to reconcile datasets (which are structured differently by the two contracts' data management systems) so calculations of indicators yield consistent and accurate results.



GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

Global Supply Chain M&E Indicator Performance

FY2019 Quarter 2, January - March 2019

Delivery Impact to Date



Number of ACT treatments delivered

162,755,785



Number of Couple Years Protection delivered

44,731,166



Person-years of ARV treatment delivered

5,462,144

OTIF, OTD and Backlog	Cycle Time	Quality Assurance (TO2 only)	Procurement	Total Landed Cost	Registration
Supply Plan and Forecast Error	Supply Plan Submissions	Warehousing	Vendor Performance	Global Advocacy Engagements	GHSC-BI&A Data Sharing
HIV Complete Quarterly Results (TO1)		Malaria Complete Quarterly Results (TO2)		FP/RH Complete Quarterly Results (TO3)	
MNCH & Zika Complete Quarterly Results (TO4)					



Fiscal Year 2019 Key Performance Overview - IDIQ

		FY 2019 Q1	FY 2019 Q2	FY 2019 Q3	FY 2019 Q4	FY 2019
Reporting Period (Quarter) Start Date		10/01/18	01/01/19	04/01/19	07/01/19	10/01/18
Reporting Period (Quarter) End Date		12/31/18	03/31/19	06/30/19	09/30/19	09/30/19
Global Supply Chain						
A1a.	Percentage of line items delivered on time and in full, within the minimum delivery window	84%	83%			
A1b.	Percentage of line items delivered on time, within the minimum delivery window	85%	88%			
A3.	Cycle time (average) – # days per shipment	258	261			
A4.	Inventory turns (average number of times inventory cycles through GHSC-PSM-controlled global facilities) – ratio	<i>Annual Indicator</i>				
A5.	Total landed cost (logistics costs)	16.2%		<i>Semiannual Indicator</i>		
A13.	Percentage of batches of product showing nonconformity (out of specification percentage)	0.0%	0.0%			

Important: Key performance metrics on this page are intended to provide an overall snapshot of the project's performance. They may conceal nuances of TO and/or country performance and must be interpreted in light of individual TO and/or country performance of more granular data.

Fiscal Year 2019 Key Performance Overview - IDIQ

			FY 2019 Q1	FY 2019 Q2	FY 2019 Q3	FY 2019 Q4	FY 2019
Reporting Period (Quarter) Start Date			10/01/18	01/01/19	04/01/19	07/01/19	10/01/18
Reporting Period (Quarter) End Date			12/31/18	03/31/19	06/30/19	09/30/19	09/30/19
In-Country							
B1.	Stockout rate at SDPs		13%	12%			
B2.	Percentage of stock status observations in storage sites where commodities are stocked according to plan, by level in supply system		25%	24%			
B3.	SDP reporting rate to the logistics management information system (LMIS)		76%	77%			
C1.	Number of people trained – #	TO-Specific Trainings Combined	1,143	2,281			
		Cross-TO Trainings	456	948			
		All Trainings (TO-Specific & Cross-TO)	1,599	3,229			

Important: Key performance metrics on this page are intended to provide an overall snapshot of the project's performance. They may conceal nuances of TO and/or country performance and must be interpreted in light of individual TO and/or country performance of more granular data.

Fiscal Year 2019 Key Performance Overview By Task Order

Indicator		IDIQ FY19 Target	Task Order 1 HIV/AIDS				Task Order 2 Malaria					Task Order 3 PRH				Task Order 4 – MNCH						
			FY19 Target	2018 Q3	2018 Q4	2019 Q1	2019 Q2	FY19 Target	2018 Q3	2018 Q4	2019 Q1	2019 Q2	FY19 Target	2018 Q3	2018 Q4	2019 Q1	2019 Q2	FY19 Target	2018 Q3	2018 Q4	2019 Q1	2019 Q2
Global Supply Chain																						
A1a	Percentage of line items delivered on time and in full, within the minimum delivery window (Total number of line items delivered)	80%	80%	61%	82%	82%	81%	80%	50%	65%	89%	92%	80%	78%	83%	83%	91%	80%	67%	63%	87%	81%
				1240	1187	912	1062		220	195	188	202		60	54	46	44		15	32	146	330
A1b	Percentage of line items delivered on time within the minimum delivery window (Total number of ADDs in the quarter)	80%	80%	75%	87%	82%	89%	80%	63%	88%	94%	93%	80%	72%	95%	92%	85%	80%	82%	68%	97%	81%
				1059	1144	1007	1003		218	156	189	203		47	43	48	46		17	31	133	332
A3	Cycle time (average) – days per line item delivered	NA	227	213	228	233	204	311	296	309	328	341	RDC: 232 DD: 272	RDC: 193 DD: 285	RDC: 221 DD: 262	RDC: 272 DD: 353	RDC: 254 DD: 293	216	233	225	308	397
A4	Inventory turns – ratio	NA	4	6.2		Annual		3	4.6		Annual		3	3.3		Annual		NA	No inventory held			

A2: See Task Order 2 QA-specific indicators below. This indicator is not reported for TO1, TO3, and TO4 because QA processes for these task orders are managed by the GHSC-QA project. Fiscal Year targets represent desired indicator result aggregated over the full fiscal year.

Indicator		IDIQ FY19 Target	Task Order 1 HIV/AIDS					Task Order 2 Malaria					Task Order 3 PRH					Task Order 4 – MNCH				
			FY19 Target	2018 Q3	2018 Q4	2019 Q1	2019 Q2	FY19 Target	2018 Q3	2018 Q4	2019 Q1	2019 Q2	FY19 Target	2018 Q3	2018 Q4	2019 Q1	2019 Q2	FY19 Target	2018 Q3	2018 Q4	2019 Q1	2019 Q2
A5	Total landed cost (logistics costs)	11%	8%	8.3%	9.2%		18%	21.2%		33.3%		21%	12.5%		16.6%		21%	20.6%		16.2%		
A6a	Absolute percent supply plan error, with variants annual absolute percent error and supply plan bias	See Forecast and Supply Plan Performance pages for detailed indicator results.																				
A6b	Absolute percent forecast error, with variants annual absolute percent error and forecast bias																					
A7	Temporary waiver percentage	GHSC-PSM is in the process of finalizing definition, data sources, and calculation method for this indicator. It will be reported for Task Order 2 beginning FY2019 Q2 and Task Order 3 before the end of FY2019.																				
A8	Average percentage of shelf life remaining for warehoused commodities, weighted by the value of each commodity's stock	NA	78%	81%	84%	81%	82%	70%	74%	70%	68%	66%	78%	84%	86%	85%	86%	NA	No inventory held			
A10	Percentage of product procured using a framework contract (framework contract percentage)	NA	77%	65%	85%	72%	71%	39%	37%	40%	60%	68%	95%	100%	100%	100%	100%	90%	100%	100%	98%	61%
A16	Percentage of backlogged line items	<5%	<5%	2%	2%	4%	2%	<5%	7%	1%	1%	0.3%	<5%	2%	0.2%	0%	2%	<5%	3%	0%	1%	0.6%

A9, A11, A12: These indicators have been removed from the GHSC-PSM M&E Plan with approval from USAID. More details on indicator changes can be found in the [GHSC-PSM IDIQ M&E plan](#).
A13, A14, A15: See Task Order 2-specific indicator results below. These indicators are not reported for TO1, TO3, and TO4 because QA processes for these task orders are managed by the GHSC-QA project. Fiscal Year targets represent desired indicator result aggregated over the full fiscal year.

Indicator		Task Order 2 Malaria				
		FY19 Target	2018 Q3	2018 Q4	2019 Q1	2019 Q2
A2	Percentage of QA processes completed within the total estimated QA lead times	80%	84%	83%	84%	80%
A13	Percentage of batches of product for which the final result is showing nonconformity (out of specification percentage)	<1%	0.0%	0.0%	0.0%	0.0%
A14b	Average vendor rating score – QA labs	NA	80%	76%	79%	74%
A15	Percentage of QA investigation reports submitted within 30 calendar days of outcome determination (QA investigation report submission)		100%		100%	
Indicator		Crosscutting				
A14a	Average vendor rating score – Suppliers	NA	NA	NA	75%	76%
A14c	Average vendor rating score – Freight Forwarders	NA	76%	79%	82%	86%
C4	Percentage of required files submitted to BI&A in the reporting period	NA	92%	84%	84%	84%
C5	Percentage of required files timely submitted to BI&A in the reporting period	NA	92%	84%	84%	81%
Indicator		Task Order 1 HIV/AIDS				
C6	Average percent variance between GHSC-PSM ARTMIS and GHSC-BI&A calculations of key supply chain indicators for Task Order 1	NA	NA	NA	0.2%	0.3%

Fiscal Year targets represent desired indicator result aggregated over the full fiscal year. For certain performance indicators GHSC-PSM and USAID have agreed that targets are not appropriate, either because performance is not fully within project control, to avoid unwanted incentives, or because there is insufficient data to set targets at this time. For more detail, please see Annex C of the GHSC-PSM Monitoring and Evaluation Plan (11 Feb 2019).

Indicator	Task Order 1 HIV/AIDS				Task Order 2 Malaria				Task Order 3 PRH				Task Order 4 – MNCH				Crosscutting				
	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	
In country Context, Performance, and Sustainability																					
B1	Stockout rate at SDPs	9%	8%	8%	10%	16%	18%	13%	12%	17%	18%	15%	13%	NA				NA			
B2	Percentage of stock status observations in storage sites where commodities are stocked according to plan, by level in supply system	36%	35%	35%	36%	28%	25%	25%	22%	16%	16%	19%	16%	NA				NA			
B3	SDP reporting rate to the logistics management information system (LMIS)	91%	89%	96%	88%	89%	91%	90%	87%	80%	69%	68%	71%	NA	NA	52%	63%	NA			
B4	Average rating of in-country data confidence at the central, subnational, and SDP levels – (0-9 scale)	6.2		Annual		6.5		Annual		6.7		Annual		6.7		Annual		NA			
B5	Percentage of required annual forecasts conducted	See country-specific indicator pages for detailed data for this indicator (reported annually).																			
B6	Percentage of required supply plans submitted to GHSC-PSM during the quarter	See Supply Plan Submission and country-specific indicator pages for detailed data for this indicator.																			

Targets for in-country performance indicators are set at the country level. Targets are not required for context indicators.

Indicator	Task Order 1 HIV/AIDS				Task Order 2 Malaria				Task Order 3 PRH				Task Order 4 – MNCH				Crosscutting			
	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2

In country Context, Performance, and Sustainability

B7	Percentage of total spent or budgeted on procurement of commodities for public sector services by funding source	<i>See country-specific indicator pages for detailed data for this indicator (reported annually).</i>																						
B8	Percentage of initially GHSC-PSM-supported supply chain functions carried out by national authorities without external technical assistance	<i>This indicator is being redefined in consultation with USAID during FY2019, with the intent of reporting results in the FY2019 fourth quarter/annual report.</i>																						
B9	Supply chain technical staff turnover rate	<i>See country-specific indicator pages for detailed data for this indicator (reported annually).</i>																						
B10	Percentage of countries that have a functional logistics coordination mechanism in place	85%	Annual	82%	Annual	63%	Annual	63%	Annual	NA														
B11	Percentage of leadership positions in supply chain management that are held by women	60%	Annual	42%	Annual	18%	Annual	7%	Annual	26%	Annual													

Targets for in-country performance indicators are set at the country level. Targets are not required for context indicators.

Indicator	Task Order 1 HIV/AIDS				Task Order 2 Malaria				Task Order 3 PRH				Task Order 4 – MNCH				Crosscutting			
	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2

In country Context, Performance, and Sustainability

B12	Absolute percent consumption forecast error, with forecast bias variant	<i>See country-specific indicator pages for detailed data for this indicator (reported annually).</i>																						
C1	Number of innovations (including operations research studies) that were developed, implemented, or introduced and are related to the health commodity market or supply chain best practices	2	6	4	8	1	2	1	2	2	3	2	4	0	0	0	0	4	9	2	11			
C2	Number of people trained	725	875	594	993	1,028	1,067	492	198	565	0	19	85	0	30	38	1005	2,344	7,840	456	948			
C7a	Percentage of product lost due to expiry while under GHSC-PSM control	<i>See Warehouse Performance and country-specific indicator pages for detailed data for this indicator.</i>																						
C7b	Percentage of product lost due to theft, damage, or other causes while under GHSC-PSM control	<i>See 3PL and Commodity Vendor Performance and country-specific indicators pages for detailed data for this indicator.</i>																						

Targets for in-country performance indicators are set at the country level. Targets are not required for context indicators.

C3: This indicator has been removed from the GHSC-PSM M&E Plan with approval from USAID. C4, C5, and C6, are reported in the Global Supply Chain section above.

Indicator		Task Order 1 HIV/AIDS				Task Order 2 Malaria				Task Order 3 PRH				Task Order 4 – MNCH				Crosscutting				
		2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	
In country Context, Performance, and Sustainability																						
C8	Number of global advocacy engagements in support of improved availability of essential health commodities	4		2			1		4			4		9			0		0		4	6
C10	Percentage of GHSC-PSM-procured or supported molecular instruments that remained functional during the reporting period	68%	74%	63%	69%				NA					NA								NA
C11	Supply chain policies, regulations, strategies, or SOPs developed or updated with GHSC-PSM assistance	See country-specific indicator pages for detailed narratives for this indicator.																				

Targets for in-country performance indicators are set at the country level. Targets are not required for context indicators.
C9: This indicator has been removed from the GHSC-PSM M&E Plan with USAID approval.

Delivery Performance

Current Reporting Period

2019-Q2

A1a. On-time, In-Full Delivery

Task Order	Total # of Line Items Delivered	OTIF	OTIF Target
TO1	1,062	81%	80%
TO2	202	92%	80%
TO3	44	91%	80%
TO4	330	81%	80%
Total	1,638	83%	80%

A1b. On-time Delivery

Task Order	Total # of Line Items with ADDs in the quarter	OTD	OTD Target
TO1	1,003	89%	80%
TO2	203	93%	80%
TO3	46	85%	80%
TO4	332	81%	80%
Total	1,584	88%	80%

A16. Backlog Percentage

Task Order	Total # of line items with ADDs in the last 12 months	Backlog	Backlog target
TO1	4,536	2.2%	5%
TO2	881	0.3%	5%
TO3	250	2.0%	5%
TO4	510	0.6%	5%
Total	6,177	1.8%	5%

Analysis

All delivery indicators (OTD, OTIF and backlog) performed above or within the target for Task Order 1 this quarter. OTIF remained constant at 81 percent, while OTD increased to 89 percent and backlog was reduced. The lab product category performed well this quarter, reaching 93 percent OTD despite a significant increase in volume. Adult ARVs also continued a steady OTIF climb, increasing from 62 percent to 80 percent OTIF over the last year.

At the IDIQ level, Quarter 2 saw a 27 percent increase in the volume of line items delivered, with sustained performance above targeted levels across the three main key performance indicators for delivery. OTIF remained steady at 83 percent, while OTD rose to its highest level so far, at 88 percent. After a slight increase last quarter, the percentage of backlogged items has declined again to only 1.8 percent.

Procurement and delivery of HIV rapid test kits is managed by the USAID GHSC-RTK contract. GHSC-PSM has managed these products only in exceptional circumstances.

Task Order 2 had the strongest performance of any task order this quarter, achieving its second quarter in a row of OTD performance greater than 90 percent. OTIF also climbed above 90 this quarter, at 92 percent. OTIF performance was above the 80 percent target in every product category. ACTs maintained this high performance despite a doubling of delivery volume, including more than 90 line items for DRC.

Task Order 3 OTIF performance was up to 91 percent this quarter. OTD has declined from previous quarters, though still above the target. The main driver of this decline is six line items for Madagascar, two of which were delivered late and four of which remained undelivered at the end of the quarter. These were among the first orders to be placed with a new supplier. Due to miscommunication about the production lead time and lack of historical data on delivery dates, the project was unable to set appropriate delivery expectations. As communications and procedures with this supplier are further standardized, we expected that these misalignments will not reoccur.

Task Order 4 met all OTIF, OTD and backlog targets this quarter, while managing more than double the delivery volume, including complex shipments to DRC.

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.

See next page for
break down by
product category



Delivery Performance

Current Reporting Period

2019-Q2 ∨

A1a. OTIF rate A1b. OTD rate A16. Backlog percentage

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
TO1	81%	1,062	89%	1,003	2.2%	4,536
Adult ARV	80%	98	83%	98	2.5%	562
Condoms	76%	50	86%	44	2.2%	178
Food and WASH					0.0%	5
HIV RTK					0.0%	3
Laboratory	84%	695	93%	636	1.4%	2,627
Other Non-Pharma	83%	84	91%	80	2.7%	408
Other Pharma	60%	63	77%	53	7.3%	303
Other RTK	100%	3	75%	4	0.0%	10
Pediatric ARV	66%	44	84%	44	1.1%	268
TB HIV	100%	2	40%	5		
Vehicles and other equipment	100%	3	100%	3	0.0%	13
VMMC	85%	20	53%	36	6.9%	159
TO2	92%	202	93%	203	0.3%	881
ACTs	94%	126	95%	124	0.2%	429
Laboratory	100%	1	33%	3	0.0%	50
LLINs	91%	23	100%	21	0.0%	155
mRDTs	90%	20	100%	21	0.0%	77
Other Non-Pharma			0%	2	0.0%	15
Other Pharma	100%	2	100%	2	0.0%	46
Severe Malaria Meds	81%	21	82%	22	2.2%	90
SMC	100%	2	100%	2		
SP	86%	7	100%	6	0.0%	19

A1a. OTIF rate A1b. OTD rate A16. Backlog percentage

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
TO3	91%	44	85%	46	2.0%	250
All Other TO3 Products					0.0%	1
Combined Oral Contraceptives	100%	10	100%	7	0.0%	49
Copper-Bearing Intrauterine Devices	100%	5	100%	6	0.0%	14
Emergency Oral Contraceptives	50%	2	100%	1	0.0%	8
Implantable Contraceptives	75%	4	100%	4	2.0%	51
Injectable Contraceptives	100%	11	85%	13	0.0%	70
Laboratory					0.0%	1
Other Non-Pharma	67%	6	44%	9	15.4%	26
Other Pharma					0.0%	2
Other RTK					0.0%	1
Progestin Only Pills	100%	4	100%	4	0.0%	21
Standard Days Method	100%	2	100%	2	0.0%	6
TO4	81%	330	81%	332	0.6%	510
Food and WASH					0.0%	8
Laboratory	98%	44	100%	44	0.0%	44
Other Non-Pharma	88%	8	100%	7	0.0%	29
Other Pharma	78%	278	78%	281	0.7%	424
Other RTK					0.0%	5

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

2019-Q2

A3. Average overall cycle time

Task Order	# of line items delivered	Average Cycle Time	Cycle time target
TO1	1062	204	230
TO2	202	341	315
TO3	44	264	
TO4	330	397	220
Total	1638	261	240

A3. Average overall cycle time (with TO3 Targets)

Task Order	# of line items delivered	Average Cycle Time	Cycle time target
TO3	44	264	
Direct drop fulfillment	11	293	275
Warehouse fulfillment	33	254	235

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



Analysis

Task Order 2 cycle time increased to 341 days this quarter, on average. Cycle time for direct drop was 290 days, consistent with the previous quarter, while RDC fulfillments averaged 374 days, a drop from a Q1 peak of over 400 days. The majority of line items reported as "warehouse" fulfillments (84 percent) remain items staging on their way to DRC, as part of a strategy for this long lead time destination. With these DRC line items excluded, cycle time for warehouse fulfillments falls to 252 days in Q2.

Cycle time on Task Order 4 continues to rise sharply, in tandem with a steep increase in deliveries to the Democratic Republic of Congo. Overall delivery volume more than doubled since the previous quarter, from 149 to 330 line items delivered, with 325 of those lines destined for DRC. With DRC lines excluded, the cycle time for TO4's remaining line items is 224 days, in line with earlier performance and closer to the target for these commodities (220 days).

Cycle time for TO2 QA processes averaged 45 days from Actual GAD to QA complete date, consistent with Q1.

Cycle time fell for both direct drop and warehouse fulfillments this quarter, coming closer to targeted performance. At the low end, there was an increase in the number of line items that were fulfilled quickly from the RDC, in less than 100 days. At the high end, there were fewer lines with exceptionally long cycle times this quarter. Of those with long cycle times, a few were impacted due to an emergency order of contraceptive implant kits that the project fulfilled for Yemen. This emergency caused delays in stock allocation for other orders of this product (all but one line item of which were still delivered on time). However, the main driver in instances of long cycle times was early order placement, with several countries placing their orders 1-2 years in advance of their requested delivery dates. In two other cases, countries requested later delivery dates than their initial RDDs, effectively lengthening their cycle time.

Cycle time fell below the target for TO1 for the first time this quarter, for both warehouse and direct drop fulfillments. Overall performance averaged 204 days, against a target of 230.

Data notes

Quarterly indicator targets are effective beginning FY2018 Q4.

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. The project is implementing new dwell tracking procedures, with the intent of reporting dwell-adjusted cycle time by FY2020.

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.

Cycle Time Performance

Current Reporting Period

2019-Q2

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

Fulfillment Channel Task Order	Direct Drop Fulfillment				Warehouse Fulfillment			Total
	Air	Land	Multiple	Sea	Air	Land	Sea	
TO1	198	193	328	325	225	209	240	204
Adult ARV	242			297	272	226	273	252
Condoms	146			335	142		198	258
Laboratory	189	197	328					193
Other Non-Pharma	163	194						187
Other Pharma	231	331		275	247			246
Other RTK	152							152
Pediatric ARV	262			459	232	191		254
TB HIV	310							310
Vehicles and other equipment		195						195
VMMC		50			106	73	101	60
TO2	237	556		375	372			341
ACTs	239				362			340
Laboratory	254							254
LLINs				388				388
mRDTs	203			230	592			283
Other Pharma	295				292			294
Severe Malaria Meds	269				443			368
SMC					266			266
SP	260	556			185			323
TO3	198			347	256		252	264
Combined Oral Contraceptives				813	238		189	271
Copper-Bearing Intrauterine Devices					374		337	366
Emergency Oral Contraceptives	193							193
Implantable Contraceptives				231	226		182	216
Injectable Contraceptives				194	58		209	176
Other Non-Pharma				612			384	422
Progestin Only Pills					279		107	236
Standard Days Method	204							204

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

Fulfillment Channel Product Category	Direct Drop Fulfillment			Total
	Air	Land	Sea	
Laboratory	369	85		363
Other Non-Pharma	366		311	352
Other Pharma	405		401	403
Total	397	85	400	397

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. The project is implementing new dwell tracking procedures, with the intent of reporting dwell-adjusted cycle time by FY2020.

Quarterly indicator targets are effective beginning FY2018 Q4.

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	51	8	52		76	56	66
TO1	56	6	44		75	34	37
TO2	92	3	36		36	78	46
TO3	122	6	47		23	29	35
TO4	26	15	78		92	79	110
Warehouse fulfillment	75	2	134	59			32
TO1	47	3	115	30			29
TO2	95	1	155	88			32
TO3	82	4	106	37			36
Total	55	7	65	107			58

Quality Assurance Performance (TO2 only)

Current Reporting Period

2019-Q2



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.

A2. QA processes completed within required lead times

Task Order	Total # of QA processes completed	% QA Processes On Time	A2 Target
TO2	66	80%	80%
ACTs	26	88%	80%
LLINs	12	100%	80%
mRDTs	11	82%	80%
Other Pharma	1	0%	80%
Severe Malaria Meds	13	54%	80%
SP	3	67%	80%

A13. Out-of-specification percentage

Task Order	Total # of batches tested	Out-of-specification percentage	A13 Target
TO2	318	0.0%	1%
ACTs	115	0.0%	1%
LLINs	26	0.0%	1%
mRDTs	44	0.0%	1%
Other Non-Pharma	0		1%
Other Pharma	21	0.0%	1%
Severe Malaria Meds	66	0.0%	1%
SP	46	0.0%	1%

A15. QA investigation report submission

Task Order	# of reports due	Report submissions	A15 Target
TO2	1	100%	90%
ACTs	1	100%	90%
LLINs			
mRDTs			
Other Pharma			
Severe Malaria Meds			
SMC			
SP			

Indicators Analysis

A2	While the percentage of QA processes completed within the required lead times has slightly decreased this quarter, it still meets the target of 80 percent. Performance for LLINs is particularly strong, with 100 percent of processes completed on time for the last several quarters. Analysis of the results indicates that most of the delays were caused by congestion at a single lab. The lab received an increased volume of batches for testing this quarter, and it was managing exceptional time-consuming activities regarding analytical issues and investigations. The lab is hiring additional staff that should help alleviate delays in the future, and orders have been reallocated to other labs where possible. In the short term, GHSC-PSM's procurement teams are planning for increased lead times for this lab.
A13	This quarter, 318 batches of product underwent pre-shipment testing, none of which were found to be out of specification.
A15	One QA investigation report was due in the first half of FY2019, and it was submitted on time.

Warehouse Performance and Product Losses

Current Reporting Period

2019-Q2

A8. Shelf life remaining

Task Order	Inventory Balance	% Shelf Life Remaining	Shelf life target
TO1	\$104,788,078	82%	78%
TO2	\$23,184,777	66%	70%
TO3	\$58,668,600	84%	77%
Total	\$186,641,454	77%	

Indicators Analysis

A8	Overall shelf life remaining for family planning items was 86 percent this quarter, continuing to be above the target and performing consistently with the past several quarters.
A8	Overall shelf life remaining for malaria items was 66 percent at the end of this quarter. Despite a slight decrease, there is little risk of expiry of these items. Most stock already have been allocated, with the shelf life status accepted by countries, and is now pending shipment. A significant portion of the current stock--about 75 percent by value--is SP/AQ, which is being staged at the RDC prior to shipping out for seasonal campaigns. All this stock has already been allocated, with ship dates between now and August 2019. Some older stock has also been allocated for emergency orders, which should increase average shelf life remaining when these orders are shipped.
A8	Shelf life remaining for HIV items remained consistent from previous quarters, continuing to be above the target at 82 percent (target: 78 percent).
C7a	A small quantity of laboratory items expired at the RDC this quarter. The items were part of a canceled country order that was rerouted to the RDC. The product was not one that is usually stocked at the RDC, and it did not represent a significant value of TO1 inventory.
C7a	There were no family planning expiries at the RDCs to report this quarter.
C7a	There were no malaria expiries at the RDCs to report this quarter.
C7b	The most common forms of product loss continue to be damage or discrepancies that occur during transit through the global supply chain, and which impact relatively small proportions of GHSC-PSM's order volume. These types of losses are typical for large supply chain operations.

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
TO2	Burkina Faso	Damage	ACTs	\$3,114	\$4,514,152	0.07%
TO1	RDC	Damage	Adult ARV	\$54	\$56,151,437	0.00%
TO1	Nigeria	Damage	Adult ARVs	\$370	\$35,186,714	0.00%
TO1	RDC	Damage	Adult ARVs	\$54	\$56,212,561	0.00%
TO3	Rwanda	Damage	Combined oral contraceptive	\$2	\$1,004,604	0.00%
TO1	Ethiopia	Damage	Condoms	\$425	\$4,369,706	0.01%
TO1	Ethiopia	Damage	Essential medicines	\$9	\$661,275	0.00%
TO3	RDC	Damage	Injectable Contraceptives	\$27	\$5,175,186	0.00%
TO4	Honduras	Damage	Insect repellent	\$522	\$658,660	0.08%
TO1	Haiti	Damage	Laboratory	\$357	\$2,450,850	0.01%
TO1	Rwanda	Damage	Other Pharma	\$221	\$4,168,930	0.01%
TO2	Angola	Damage	Severe Malaria Meds	\$14	\$3,554,341	0.00%
TO2	Uganda	Damage	Severe Malaria Meds	\$12	\$4,003,243	0.00%
TO1	RDC	Expiry	Laboratory	\$1,860	\$36,952,382	0.01%
TO2	RDC	Expiry	NA	\$0	\$6,955,987	0.00%
TO3	RDC	Expiry	NA	\$0	\$16,068,432	0.00%
TO1	Rwanda	Missing product	Condoms	\$131	\$2,545,914	0.01%
TO2	Nigeria	Missing product	LLINs	\$2,450	\$7,700,767	0.03%
TO2	Rwanda	Missing product	mRDTs	\$11,520	\$1,517,685	0.76%
TO1	Nigeria	Missing product	Pediatric ARV	\$461	\$17,122,493	0.00%
TO1	Mozambique	Missing product	VMMC	\$487	\$12,072,094	0.00%

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.

Procurement Performance

A10. Framework contract percentage

Task Order	Procurement total	Framework contract percentage	Framework contract target
TO1	\$103,949,186	71%	76%
TO2	\$21,178,130	68%	39%
TO3	\$9,063,793	100%	95%
TO4	\$765,375	61%	90%
Total	\$134,956,484	73%	

A10. Product-level detail

Task Order	Framework contract percentage	Procurement total
TO1	71%	\$103,949,186
Adult ARV	99%	\$45,398,483
Condoms	100%	\$7,271,792
Laboratory	27%	\$36,153,816
Other Non-Pharma	3%	\$2,833,321
Other Pharma	100%	\$3,266,640
Other RTK	3%	\$192,389
Pediatric ARV	99%	\$6,173,645
Vehicles and other equipment	0%	\$25,124
VMMC	98%	\$2,633,976
TO2	68%	\$21,178,130
ACTs	100%	\$7,229,582
Laboratory	0%	\$24,158
LLINs	0%	\$6,470,372
mRDTs	100%	\$2,523,760
Other Non-Pharma	0%	\$177,090
Other Pharma	100%	\$161,637
Severe Malaria Meds	100%	\$2,922,662
SP	100%	\$1,668,867

A10. Product-level detail

Task Order	Framework contract percentage	Procurement total
TO3	100%	\$9,063,793
Combined Oral Contraceptives	100%	\$698,377
Copper-Bearing Intrauterine Devices	100%	\$36,582
Implantable Contraceptives	100%	\$3,981,672
Injectable Contraceptives	100%	\$3,962,910
Other Non-Pharma	100%	\$107,701
Progestin Only Pills	100%	\$268,272
Standard Days Method	100%	\$8,280
TO4	61%	\$765,375
Laboratory	100%	\$184,140
Other Non-Pharma	0%	\$299,217
Other Pharma	100%	\$282,017

Analysis

Framework contracting by value for HIV items overall has maintained in the low 70s. This is mainly due to the drop in adult ARV procurements, which has continued from the previous quarter. Nearly all ARV procurements continue to be made under framework contracts, but the lower volume of procurements compared to peak levels in late FY2018 has brought down the average overall. The project expects an increase, with significant orders for RDC replenishment and for Tanzania releasing in the coming quarters. Within the lab category, the use of framework contracts has increased to cover more than a quarter of procurements, up from 9 percent this time last year, as the project expands the use of IDIQs and BOAs for these products.

Framework contracting for malaria products continues to increase, up to 68 percent this quarter. One-hundred percent of malaria pharmaceuticals and RDTs were procured under framework contracts this quarter. LLINs, lab and other non-pharma items are still primarily procured under non-framework contracts. This is expected to shift as the procurement team plans to implement framework contracts for LLINs following the SKU rationalization.

Maternal and child health commodities dropped off from past performance on framework contracts. However, this can be attributed to just two line items of newborn health equipment, purchased via decentralized procurement in Rwanda. Commodities for all other procurements, including all essential medicines, fell under framework contracts.

Task Order 3 continues to procure all items under framework contracts, per the sourcing strategy for these commodities.

TO4 procurement totals include purchases of both MNCH and Zika commodities.

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
T02	5.0%	202
ACTs	1.6%	126
LLINs	0.0%	23
Severe Malaria Meds	19.0%	21
mRDTs	0.0%	20
SP	28.6%	7
Other Pharma	100.0%	2
SMC	0.0%	2
Laboratory	0.0%	1
Total	5.0%	202

Analysis

Five percent of malaria line items delivered this quarter were imported using a temporary registration waiver (10 out of 202 line items). The majority of items (79 percent) were registered in the destination country, while the remaining 16 percent were not required to be registered. Among the items that required a registration waiver, 90 percent were delivered on time. The need for a registration waiver also did not appear to have a negative impact on cycle time, compared to other malaria line items. Average cycle time for these line items using a registration waiver was 262 days, compared to 341 days for Task Order 2 overall.

Supply Plan Submissions

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

Product Group	# of supply plans required	Supply plan submission rate	Submission target
ARVs	16	94%	85%
Condoms	16	88%	85%
FP commodities	17	88%	85%
Lab (HIV diagnostics)	13	100%	85%
Malaria commodities	13	92%	60%
MCH commodities	6	67%	60%
RTKs	16	94%	85%
VMMC	5	80%	60%
Total	102		

Analysis

Fifteen out of seventeen family planning supply plans were submitted this quarter, for a submission rate of 88 percent. This brings family planning submissions above the 80 percent target. The missing plans were from Madagascar, which no longer has a GHSC-PSM field office, and South Sudan, which does not have a family planning commodity budget this year.

Required ARV supply plans were submitted from all but one country this quarter, raising the submission rate to 94 percent. VMMC plans were also submitted from all but one required country, although the result is only 80 percent due to the small number of countries required to submit this plan. Lab submissions reached 100 percent this quarter, and RTKs increased to 94 percent. Condom submissions reached 88 percent, missing only from two non-field office countries.

Supply plan submissions for maternal and child health climbed above the target this quarter, reaching 67 percent. Plans were not submitted from Madagascar, which no longer has a GHSC-PSM field office, and from Haiti. In Haiti, a plan has not yet been created because consumption data for these products are still not widely collected.

Twelve of thirteen required supply plans were submitted for malaria this quarter, bringing the submission rate to 92 percent. The missing plan was from Madagascar, which no longer has a GHSC-PSM field office.



Supply Plan and Forecast Performance

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
Pediatric ARV	43%	8%	6%	26%	-6%
Laboratory	16%	16%	24%	30%	24%
Condoms	45%	16%	25%	35%	25%
Adult ARV	15%	0%	5%	26%	4%

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	31%	-31%		35%	
mRDTs	20%	-20%		35%	

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	64%	64%	15%	35%	15%
Copper-bearing Intrauterine Devices	123%	-123%	5%	35%	5%
Implantable Contraceptives	19%	19%	14%	35%	14%
Injectable Contraceptives	34%	34%	7%	35%	7%
Progestin Only Pills	13%	13%	2%	35%	2%

Analysis

The GHSC-PSM Plan team began conducting aggregated supply plan error analysis for malaria for the first time this quarter. With malaria supply plans now collected for 14 countries, the team is calculating supply plan error for ACTs and rapid diagnostics tests. In this first quarter of data collection, supply plan error was 31 percent for ACTs, with ordered quantities coming in under the forecast for the quarter. RDTs were also overforecasted, at 20 percent. Given that only one quarter of data are available, no results are presented for the four-quarters APE and forecast bias indicators.

Supply plan error for lab items has remained consistent with the previous quarter, at 19 percent. Error over the last year has come down slightly, to 21 percent. The Plan team is working closely with suppliers and across both HQ and field offices to better understand and triangulate demand. The lab supply chain systems strengthening team is also involved in supply plan reviews and is working with the field office to better understand their planning challenges.

Supply plan error for adult and pediatric ARVs fell to only 6 percent this quarter, and just 2 percent over the last four quarters. While pediatric ARVs were overforecasted this quarter, the four-quarters performance is still within the target at 10 percent supply plan error. Given the upcoming product transitions for pediatric ARVs, the forecasting team is working closely with the pediatric working group to understand the potential demand and support the transition.

Despite larger forecast errors for some products in the current quarter (combined oral contraceptives and copper-bearing IUDs), all family planning products performed within the target range of 35 percent for the current quarter. Most error this quarter was due to countries placing orders with requested lead times less than 90 days, such that they did not appear on supply plans prior to entry. In the case of IUDs, Uganda placed an order originally planned for March that is now requested in June.

Condom forecast error was 71 percent this quarter, with eight countries placing orders with lead times under three months. This includes three Central Asian countries where GHSC-PSM does not have a field office and from which it does not typically receive supply plans.

Total Landed Cost

A5. Total Landed Costs

Task Order	Total Landed Cost (Freight and Logistics)	TLC Target	Delivery Total	Total Landed Cost (Freight, Logistics, and HQ Operations)
TO1	9.2%	8%	\$487,117,531	13.5%
TO2	33.3%	18%	\$197,516,935	36.6%
TO3	16.6%	21%	\$39,212,459	29.9%
TO4	16.2%	21%	\$8,890,136	26.8%
Total	16.2%	11%	\$732,737,061	20.8%

A5. Cost Breakdown

Cost Type	TO1	TO2	TO3	TO4	Total
Freight and Logistics	\$44,799,998	\$65,810,159	\$6,514,613	\$1,441,573	\$118,566,343
Country-specific Logistics	\$3,533,629	\$3,291,022	\$610,175	\$87,977	\$7,522,802
Demurrage	\$96,526	\$265,451	\$94,618	\$0	\$456,594
Drop Ship Freight	\$26,493,232	\$52,671,069	\$1,557,931	\$1,323,445	\$82,045,676
Inbound Freight	\$4,432,995	\$3,762,663	\$215,792	\$0	\$8,411,449
Insurance	\$626,960	\$284,866	\$113,106	\$21,532	\$1,046,463
Loss	\$77,357	\$6,709	\$7,661	\$0	\$91,727
Outbound Freight	\$7,543,945	\$5,093,986	\$3,299,130	\$1,483	\$15,938,544
Security	\$30,711	\$234,128	\$3,178	\$0	\$268,017
Warehousing	\$1,964,645	\$200,266	\$613,022	\$7,137	\$2,785,070
HQ Operations	\$20,881,420	\$6,537,625	\$5,207,138	\$942,324	\$33,568,509
Forecasting and Supply Planning	\$2,697,881	\$622,522	\$464,844	\$22,661	\$3,807,908
MIS	\$3,843,485	\$1,881,761	\$2,224,805	\$119,976	\$8,070,027
Monitoring and Evaluation	\$3,667,685	\$743,879	\$543,855	\$91,831	\$5,047,250
Procurement	\$8,835,772	\$3,008,101	\$1,811,081	\$667,182	\$14,322,136
Warehousing and Distribution	\$1,836,597	\$281,363	\$162,554	\$40,674	\$2,321,188
Total	\$65,681,419	\$72,347,784	\$11,721,751	\$2,383,897	\$152,134,852

Analysis

Both variants of total landed cost for Task Order 1 stayed relatively flat since the previous period. For HIV specifically, the most significant cost increase for the period was in outbound freight costs, which tracks with an increase (37 percent) in the value of HIV commodities shipped from the RDC over the previous period.

Freight and logistics costs for Task Order 3 have risen to 16.6 percent of the cost of commodities delivered. This is within the FY2019 target of 21 percent for TO3. TO3 saw a decrease in the value of commodities shipped, from \$53.6 million in the previous period to \$39.2 million in the last 12 months, which may have contributed to the increase in the indicator. While country-specific logistics costs (i.e. delivery costs beyond the port of entry) fell in the period, outbound freight costs increased.

Per agreement with USAID, quality assurance costs are not included in this indicator, since GHSC-PSM does not manage QA across all TOs. For TO2, where QA is managed by the project, the total landed cost (freight and logistics) with QA included increases to 34.7 percent. Total landed cost including HQ operations is 38.2 percent with QA included.

Total landed cost for freight and logistics for Task Order 2 increased to 33.3 percent, up from 21.2. This is driven heavily by an increase in drop ship freight costs. While some increase in these costs is expected due to the global freight market, the increase is steeper on TO2 than for other task orders. This may be driven by a shifts in the mix of commodities that were delivered or the destinations served in this period. For instance, severe malaria medicines, which consist largely of vials of liquids, are heavier and therefore more costly to ship; the project saw a nearly 60 percent increase in delivery value of these products from the previous period. DRC, a higher-cost destination country, saw an 90 percent increase in delivery value this period. Other factors may include the strategic use of the RDC to stage shipments for certain countries and suppliers, which consciously increases costs in exchange for delivery performance benefits (evident in TO2's strong OTD performance over the last several quarters).

Total landed cost for Task Order 4 fell this period. Absolute costs rose, but so did delivery values, more than doubling from \$4 million in the previous period to \$8.9 million in the last 12 months. Task Order 4 is operating within its target of 21 percent for freight and logistics costs for FY2019.

Data notes

GHSC-PSM's total landed cost indicator is equal to the sum of all costs associated with commodity delivery, divided by the total value of commodities delivered. It is reported semiannually, for a rolling 12-month period. It provides a high-level sense of the project's relative operations and direct logistics costs, but it may lack precision for several reasons: 1) Commodity cost savings may cause the denominator to decrease, even if volume stays the same. This may have the effect of increasing total landed cost as percentage, even if costs in the numerator remain the same. 2) Logistics costs for items shipped under C and D Incoterms are built into the commodity cost charged by the supplier. They cannot be separated out and assigned to the numerator. 3) Costs in the numerator represent invoices paid, per the project monthly financial statement, while commodity costs are based on items delivered. Numerator costs may therefore be delayed compared to delivery activity represented by the denominator.

Vendor Performance

Current Reporting Period

2019-Q2

A14a-c. Average vendor rating score

Vendor Type	Average vendor rating
Commodity Supplier	76%
Freight Forwarder	86%
QA Lab	74%

Analysis

Overall lab vendor performance decreased slightly this quarter, especially on-time provision of test reports. The reduced on-time performance was most notable in labs that received a high volume of tests this quarter (one lab received 83 percent more batches for testing). The project is considering options such as qualifying additional labs and/or hiring additional staff at over-burdened labs to reduce the volume of batches to be tested.

Suppliers' OTIF continues to be stable at the same level as the previous quarter.

The 3PL vendors improved their overall score for the quarter from 82 to 86 percent, while improving or maintaining their scores in all component areas. Several factors may have played a role in this improved performance, including: 1) The scorecard results now factor in to decisions on awarding contracts, both through the annual RFQ process and in routine decisions on how much volume to assign to each 3PL, which may be incentivizing 3PLs to improve their performance; 2) This quarter saw lower volumes of shipments across the project and the entire market, which meant a more manageable workload for 3PLs and fewer scheduling adjustments, e.g. fewer sailings being bumped; and 3) There were more favorable weather patterns this quarter, which contributed to a lower number of non-compliance incidents.

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?	67%	43%	28%
2 - Responsiveness	Does the lab provide prompt response after receipt of GHSC-PSM request for testing	68%	15%	10%
3 - Completeness of Documentation	Frequency of modification to Certificates of Analysis (CoA)	91%	18%	16%
4 - Cost	Submitted invoices for routing testing adhere to set IDIQ pricing	100%	15%	15%
5 - Service	Adherence to other terms and conditions, not related to reliability, responsiveness, completeness, and cost (Qualitative)	50%	10%	5%
Total			100%	74%

Data notes

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

14c. Freight Forwarder Vendor Scorecard Components, Weighting, and Scores

Component Name	Indicator Name	Indicator Score	Indicator Weight (Overall)	Overall Weighted Score
1 - EDI Status Performance	Timeliness	79%	3%	2%
1 - EDI Status Performance	Completeness	100%	3%	2%
2 - ETA Delivery Accuracy/ Reliability	Percentage of shipments arriving within 2 days of the ETA	67%	5%	3%
2 - ETA Delivery Accuracy/ Reliability	Percentage of shipments arriving within 5 days of the ETA	80%	3%	2%
3 - Customer Service	3- Quarterly Perception Survey score	70%	4%	3%
3 - Customer Service	1- Quarterly Perception Survey score	75%	4%	3%
3 - Customer Service	2- Quarterly Perception Survey score	76%	4%	3%
4 - Invoicing Accuracy	Completeness	74%	3%	2%
4 - Invoicing Accuracy	Timeliness	75%	2%	1%
4 - Invoicing Accuracy	Accuracy	94%	5%	5%
5 - On-time performance	RFQ Transit Time	87%	20%	17%
5 - On-time performance	Delivery	94%	20%	19%
6 - On-time spot quote turnaround	Spot/Emergency Timeliness		0%	0%
6 - On-time spot quote turnaround	Spot/Non-emergency Timeliness	82%	10%	8%
7 - Rate of deliveries without NCRs	Percent of shipments delivered without NCRs during the reporting period	97%	10%	10%
8 - Booking timeliness	Timeliness	94%	5%	5%
Total			100%	86%

Data Sharing with GHSC-BI&A

Current Reporting Period

2019-Q2

C4. Required files submitted to GHSC-BI&A and C5. Required files timely submitted to GHSC-BI&A

File Type	Number of required files	% of files submitted	% of files submitted on time
Trade item	512	100%	97%
Financial	3	100%	100%
Fulfillment request	256	100%	97%
Price quote	320	100%	97%
Purchase order	320	100%	97%
Sales order	320	100%	97%
Goods received note	320	40%	37%
Inventory management	6	83%	83%
Logistics	256	100%	98%
QA	2	100%	100%
FASP	0		
TA	384	0%	0%
Supplier contracts	192	100%	97%
M&E	1	100%	100%
Reference data	640	100%	97%
Total	3,532	84%	81%

C6. Average percent variance between GHSC-BI&A and ARTMIS on key indicators (TO1 only)

0.3%

Analysis

GHSC-BI&A showed a 0.3 percent variance from ARTMIS on key indicators for Task Order 1 this quarter. There was some discrepancy in the count of order lines with ADDs in equivalent periods, but OTD in the same period was a match.

GHSC-PSM file submissions to GHSC-BI&A have remained consistent over the last several quarters. TA files are not being submitted while USAID and both projects work to determine the needs and format requirements. FASP files in the form of Pipeline databases are submitted every quarter and are accessible to BI&A users. However, the format and contents of the files create challenges for standardizing submission measurement. USAID has therefore exempted this file category from reporting while a solution is identified. File time-outs on two days in March caused not-on-time transmissions of some files, although these were then pushed manually within 24 hours.

Data notes

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.

The USAID Global Health Supply Chain Program-Business Intelligence and Analytics (GHSC-BI&A) mechanism is a data warehouse and analysis platform that integrates data across USAID's family of GHSC projects.

Global Advocacy Engagements

Current Reporting Period

2019-Q2



HIV/AIDS

2

Name of Engagement	Description
ARV Large Buyers and Sellers Forum November 13-15, 2018	GHSC-PSM participated in the Annual ARV Large Buyers and Sellers Forum and the Global Fund Antiretroviral Strategy Supplier Consultation Meeting. The project also visited individual manufacturers for more detailed discussions with technical counterparts in Mumbai, India. The goal was to introduce and develop the sourcing strategy with ARV suppliers, incorporating value-based aspects that drive flexibility such as API stocks and source diversification and the production allocation planning for not only existing procurement, but also for long-term projections.
Country Operational Plan Review for Fiscal 2020 (FY20)	GHSC-PSM attended the review of the FY20 Country Operational Plans for high burden countries, primarily in Africa. The meeting, held in Johannesburg from March 4-22, reviewed plans proposed by country teams in three separate groups (one per week) to discuss the proposed plans for FY20. Participants included those across the U.S. government, host country and civil society officials and implementing partners.



Malaria

4

Name of Engagement	Description
American Society of Tropical Medicine and Hygiene (ASTMH) Oct 28-Nov 1, 2018	GHSC-PSM attended the ASTMH Annual Meeting in New Orleans, participating in technical sessions, exhibitions and side meetings relevant to malaria research, prevention, diagnosis, treatment, supply chain and product innovations. In addition, GHSC-PSM Cameroon FO presented a poster titled "The use of delivery tracking system to ensure efficiency and accountability in the implementation of seasonal malaria chemoprevention (SMC) in the PMI supported regions of Cameroon."
TraceNet Working Group	Launched the TraceNet working group with Global Fund and UNICEF to establish a procurement requirement for identification and labeling of LLINs in accordance with GS1 Global Standards.
RBM Case Management Working Group Meeting (4-9 February 2019)	The role of CMWG is to achieve consensus on strategies for scaling up implementation of policies for malaria case management. The CMWG brings together a group of partners who work on use of diagnostic methods, improving drug provision, ensuring access to affordable quality drugs and quality treatment advice in both the public and private sectors, improving provider and patient use of malaria drugs, mitigating the risks of antimalarial drug resistance, and measuring the impact of implementation scale up on morbidity. The CMWG can also help identify necessary experts to bring in on a temporary, ad hoc basis to assist with addressing issues outside of the expertise of the CMWG itself. As a CMWG member, Grace Adeya represented GHSC-PSM at the CMWG's Annual Meeting.
RBM Malaria in Pregnancy Working Group Meeting (12-14 February 2019)	The Roll Back Malaria MiPWG is committed to quality implementation and scale-up of interventions for the prevention and control of malaria during pregnancy at the global, regional and national levels. The MiPWG plays an important role in malaria in pregnancy policy development, advocacy, research dissemination, and country support, including support to countries to accelerate programming in the context of updated recommendations. Grace Adeya is a member of this working group and represented GHSC-PSM at the annual meeting of the working group. She contributed to discussions on MiPWG working group priorities from a supply chain perspective (as appropriate), and she learned more about the dissemination and implementation of WHO's new antenatal care recommendations, as well as learn about the best practices and activities of partner organizations.

Global Advocacy Engagements

Current Reporting Period

2019-Q2



Family Planning and Reproductive Health

7



Maternal, Newborn, and Child Health

0

Name of Engagement	Description
RHSC Systems Strengthening Working Group	After her re-election to a second term, the Global Collaboration Manager chaired the biannual meeting of the SSWG in Washington, DC, a key forum for the project to contribute its expertise and leverage its field work in the area of health system strengthening.
Global Family Planning Visibility and Analytics Network	Numerous GHSC-PSM staff participated in task forces associated with the launch of the Global FP VAN, including the data-sharing and data-management task forces as well as the Steering Committee, technical task force, and super user groups. The expertise put forward by project staff in these task forces built on well-established relationships with partners in order to advance USAID FP/RH objectives.
Contraceptive Implants Technical Consultation: Addressing Barriers to Service Delivery as Implants Move to Scale	The Global Collaboration Manager attended this full-day meeting focused on moving implants to scale following the end of the access program and contributed project knowledge and expertise to the discussions held. Learnings from this meeting were then communicated internally within the project.
Coordinated Assistance for Reproductive Health Supplies	The project's Procurement Planning and Monitoring Report (PPMR) administrators participated in monthly CARhs group phone calls and provided ongoing support to the group. As one of the two major procurers of FP/RH commodities for the public sector, GHSC-PSM's involvement is critical to the success of the group in addressing stock imbalances and impending crises.
ICFP	The Task Order Director, Global Collaboration Manager, Market Dynamics Specialist and Analytics Manager all attended the International Conference on Family Planning. GHSC-PSM staff organized two panels and presented in one more. The project also had a poster.
Coordinated Supply Planning group	The TO3 Integrated Supply Chain Manager, Demand Planning analyst, and other GHSC-PSM staff participated in monthly CSP calls. As one of the two major procurers of FP/RH commodities for the public sector, GHSC-PSM's involvement is critical to the success of the group in addressing impending stock imbalances and managing global supply constraints in a coordinated manner.
Joint UNICEF, UNFPA and WHO meeting with manufacturers and suppliers	Three TO3 staff attended the Suppliers Meeting in Copenhagen. At the UNFPA/UNICEF/WHO Manufacturers Contraceptive Suppliers Meeting, the GHSC-PSM team participated in key forums and discussions related to subjects such as: WHO Prequalification Program; procurement practices and priorities of global procurers; opportunities to strengthen the quality and supply of RMNCH products globally; opportunities to harmonize procurement standards; and strategies to positively impact the market and improve the availability of RMNCH products. The GHSC-PSM team presented during the meeting on registration data management, packaging harmonization, GS1, and the Global Family Planning Visibility Analytics Network (GFPVAN) initiative.

Global Advocacy Engagements

Current Reporting Period

2019-Q2



Crosscutting

6

Name of Engagement	Description
Global Standards Technical Implementation Guideline for Global Health Commodities, V2.1 (March 2019)	GHSC-PSM led a harmonization initiative with USAID, Global Fund, UNFPA, UNDP and GDF to develop and launch a joint procurement guideline on the identification, labeling and data exchange of global health commodities: see https://www.ghsupplychain.org/global-standards-technical-implementation-guideline-global-health-commodities-v21
Global Health Supply Chain Summit (November 2019)	GHSC-PSM presented on "Optimizing the USAID Global Health Supply Chain Network: A Journey toward Supply Chain Transformation" at the Global Health Supply Chain Summit.
World Bank Global Steering Committee on Quality Assurance of Medicines	GHSC-PSM's Global Standards Team lead participates in quarterly GSC meetings at the World Bank to present to the broader donor community and the Private Sector Advisory Council on GHSC-PSM progress for global standards implementation and report out on ongoing country activities. This forum provides the opportunity to identify areas for collaboration and to bring other organizations into GHSC-PSM activities - for example, document input and review, GS1 Africa conference organization and participation in national traceability workshops as relevant to various stakeholders.
Reproductive Health Supplies Coalition Annual Membership Meeting (Nepal March 2019)	Task Order 3: The Global Collaboration and Technical Coordinator, along with M&E and Market Dynamics Specialists, attended the RHSC annual membership meeting in Kathmandu in March 2019. The Global Collaboration Manager co-facilitated the Beer Game, an interactive supply chain game, and chaired the Systems Strengthening Working Group. Presentations were made in three parallel sessions and a breakfast was co-facilitated. Task Order 4: The TO4 Director and Technical Coordinator attended the RHSC annual membership meeting in Kathmandu in March 2019. Both participated in the Maternal Health Supplies Caucus meeting, where a guidance document on the revised WHO guidelines for prevention of PPH was discussed. GHSC-PSM has provided substantial technical input to this document. GHSC-PSM also presented on appropriate oxytocin management in a parallel session.
GS1 Healthcare Conference, Thailand (November 2018)	The GS1 Healthcare Conference in November 2018 was attended by three representatives from ARTMIS and HSS, who presented on the GHSC-PSM GS1 initiative and submitted a poster highlighting key accomplishments. The GHSC-PSM team met with colleagues from GHSC-PSM Nepal to discuss implementation opportunities, and with suppliers and GS1 to discuss opportunities to implement data exchange standards (e.g. GDSN, EDI).
GS1 Healthcare Conference, Netherlands (March 2019)	This conference was attended by two representatives from the GHSC-PSM Global Supply Chain and Health Systems Strengthening teams. They co-presented with the USAID pre-qualified wholesaler IDA Foundation on GDSN implementation, and submitted a poster highlighting key accomplishments. The GHSC-PSM teams also met with colleagues from USAID and the AIDSFree project in Ethiopia, with GHSC-PSM Botswana and the Botswana FDA, and Nigeria NAFDAC/GS1 Nigeria to discuss GHSC-PSM support to respective implementations. GHSC-PSM visited the Geel, Belgium RDC to gauge the extent of use of standards, meeting with wholesalers Imres, Amstelfarma, and MEG on their implementations.

Complete Quarterly Results (TO1)

Reporting Period

2019-Q2

A1a. OTIF rate

A1b. OTD rate

A16. Backlog percentage

A10. Framework contracting

A6a and A6b. Absolute percent supply plan or forecast error

Task Order	A1a. OTIF rate		A1b. OTD rate		A16. Backlog percentage		A10. Framework contracting	
	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	81%	1,062	89%	1,003	2.2%	4,536	71%	\$103,949,186
Adult ARV	80%	98	83%	98	2.5%	562	99%	\$45,398,483
Condoms	76%	50	86%	44	2.2%	178	100%	\$7,271,792
Food and WASH					0.0%	5		
HIV RTK					0.0%	3		
Laboratory	84%	695	93%	636	1.4%	2,627	27%	\$36,153,816
Other Non-pharma	83%	84	91%	80	2.7%	408	3%	\$2,833,321
Other Pharma	60%	63	77%	53	7.3%	303	100%	\$3,266,640
Other RTK	100%	3	75%	4	0.0%	10	3%	\$192,389
Pediatric ARV	66%	44	84%	44	1.1%	268	99%	\$6,173,645
TB HIV	100%	2	40%	5				
Vehicles and Other Equipment	100%	3	100%	3	0.0%	13	0%	\$25,124
VMMC	85%	20	53%	36	6.9%	159	98%	\$2,633,976
Total	81%	1,062	89%	1,003	2.2%	4,536	71%	\$103,949,186

A6 Indicator	Supply plan/ forecast error	Supply plan/ forecast bias	4-quarter error	4-quarter bias
A6a - Supply plan error				
Adult ARV	6%	-6%	2%	-2%
Laboratory	19%	19%	21%	21%
Pediatric ARV	70%	-70%	10%	-10%
A6b - Forecast error				
Condoms	71%	71%	23%	23%

B6. Quarterly supply plan submissions

Product Group	Supply plan submission rate	# of supply plans required
ARVs	94%	16
Condoms	88%	16
Lab (HIV diagnostics)	100%	13
RTKs	94%	16
VMMC	80%	5

A8. Shelf life remaining

% Shelf Life Remaining	Inventory Balance
82%	\$36,892,452

C6. Average percent indicator variance between ARTMIS and GHSC-BI&A (TO1 only)

Average percent indicator variance
0.3%

A3. Cycle time (average)

Fulfillment Channel Task Order	Direct Drop Fulfillment				Warehouse Fulfillment			Total
	Air	Land	Multiple	Sea	Air	Land	Sea	
TO1	198	193	328	325	225	209	240	204
Adult ARV	242			297	272	226	273	252
Condoms	146			335	142		198	258
Laboratory	189	197	328					193
Other Non-pharma	163	194						187
Other Pharma	231	331		275	247			246
Other RTK	152							152
Pediatric ARV	262			459	232	191		254
TB HIV	310							310
Vehicles and Other Equipment		195						195
VMMC		50			106	73	101	60
Total	198	193	328	325	225	209	240	204

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	Damage	Adult ARV	\$54	\$56,151,437	0.00%
Nigeria	Damage	Adult ARVs	\$370	\$35,186,714	0.00%
RDC	Damage	Adult ARVs	\$54	\$56,212,561	0.00%
Ethiopia	Damage	Condoms	\$425	\$4,369,706	0.01%
Ethiopia	Damage	Essential medicines	\$9	\$661,275	0.00%
Haiti	Damage	Laboratory	\$357	\$2,450,850	0.01%
Rwanda	Damage	Other Pharma	\$221	\$4,168,930	0.01%
RDC	Expiry	Laboratory	\$1,860	\$36,952,382	0.01%
Rwanda	Missing product	Condoms	\$131	\$2,545,914	0.01%
Nigeria	Missing product	Pediatric ARV	\$461	\$17,122,493	0.00%
Mozambique	Missing product	VMMC	\$487	\$12,072,094	0.00%

Crosscutting indicators

A14. Average vendor ratings

Vendor Type	Average vendor rating
Commodity Supplier	76%
Freight Forwarder	86%

C4. and C5. BI&A Submissions

% of files submitted	% of files submitted on time
84%	81%
26	

Complete Quarterly Results (TO2)

Reporting Period

2019-Q2 ▼

Task Order	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	
	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	92%	202	93%	203	0.3%	881	5.0%	202	68%	\$21,178,130	80%	66	0.0%	318	100%	1
ACTs	94%	126	95%	124	0.2%	429	1.6%	126	100%	\$7,229,582	88%	26	0.0%	115	100%	1
Laboratory	100%	1	33%	3	0.0%	50	0.0%	1	0%	\$24,158						
LLINs	91%	23	100%	21	0.0%	155	0.0%	23	0%	\$6,470,372	100%	12	0.0%	26		
mRDTs	90%	20	100%	21	0.0%	77	0.0%	20	100%	\$2,523,760	82%	11	0.0%	44		
Other Non-Pharma			0%	2	0.0%	15			0%	\$177,090				0		
Other Pharma	100%	2	100%	2	0.0%	46	100.0%	2	100%	\$161,637	0%	1	0.0%	21		
Severe Malaria Meds	81%	21	82%	22	2.2%	90	19.0%	21	100%	\$2,922,662	54%	13	0.0%	66		
SMC	100%	2	100%	2			0.0%	2								
SP	86%	7	100%	6	0.0%	19	28.6%	7	100%	\$1,668,867	67%	3	0.0%	46		
Total	92%	202	93%	203	0.3%	881	5.0%	202	68%	\$21,178,130	80%	66	0.0%	318	100%	1

A3. Cycle time (average)

Fulfillment Channel Task Order	Direct Drop Fulfillment			Warehouse Fulfillment	Total
	Air	Land	Sea	Air	
TO2	237	556	375	372	341
ACTs	239			362	340
Laboratory	254				254
LLINs			388		388
mRDTs	203		230	592	283
Other Pharma	295			292	294
Severe Malaria Meds	269			443	368
SMC				266	266
SP	260	556		185	323
Total	237	556	375	372	341

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	31%	-31%		
mRDTs	20%	-20%		

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

Country	Type of Loss	Product Group	Loss Value	Loss Denominator	% Loss
Burkina Faso	Damage	ACTs	\$3,114	\$4,514,152	0.07%
Angola	Damage	Severe Malaria Meds	\$14	\$3,554,341	0.00%
Uganda	Damage	Severe Malaria Meds	\$12	\$4,003,243	0.00%
RDC	Expiry	NA	\$0	\$6,955,987	0.00%
Nigeria	Missing product	LLINs	\$2,450	\$7,700,767	0.03%
Rwanda	Missing product	mRDTs	\$11,520	\$1,517,685	0.76%

B6. Quarterly supply plan submissions

Product Group	Supply plan submission rate	# of supply plans required
Malaria commodities	92%	13

A8. Shelf life remaining

% Shelf Life Remaining	Inventory Balance
76%	\$23,024,420

A14. Average vendor rating - QA labs

Average vendor rating
74%

A14. Average vendor ratings

Vendor Type	Average vendor rating
Commodity Supplier	76%
Freight Forwarder	86%

C4. and C5. BI&A Submissions

% of files submitted	% of files submitted on time
84%	81%

Crosscutting indicators

Complete Quarterly Results (TO3)

Reporting Period

2019-Q2

A1a. OTIF rate A1b. OTD rate A16. Backlog percentage A10. Framework contracting A6b. Absolute percent forecast error

Task Order	A1a. OTIF rate		A1b. OTD rate		A16. Backlog percentage		A10. Framework contracting	
	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	91%	44	85%	46	2.0%	250	100%	\$9,063,793
All Other TO3 Products					0.0%	1		
Combined Oral Contraceptives	100%	10	100%	7	0.0%	49	100%	\$698,377
Copper-bearing Intrauterine Devices	100%	5	100%	6	0.0%	14	100%	\$36,582
Emergency Oral Contraceptives	50%	2	100%	1	0.0%	8		
Implantable Contraceptives	75%	4	100%	4	2.0%	51	100%	\$3,981,672
Injectable Contraceptives	100%	11	85%	13	0.0%	70	100%	\$3,962,910
Laboratory					0.0%	1		
Other Non-pharma	67%	6	44%	9	15.4%	26	100%	\$107,701
Other Pharma					0.0%	2		
Other RTK					0.0%	1		
Progestin Only Pills	100%	4	100%	4	0.0%	21	100%	\$268,272
Standard Days Method	100%	2	100%	2	0.0%	6	100%	\$8,280
Total	91%	44	85%	46	2.0%	250	100%	\$9,063,793

A6 Indicator	Supply plan/ forecast error	Supply plan/ forecast bias	4-quarter error	4-quarter bias
A6b - Forecast error				
Combined Oral Contraceptives	64%	64%	15%	15%
Condoms	71%	71%	23%	23%
Copper-bearing Intrauterine Devices	123%	-123%	5%	5%
Implantable Contraceptives	19%	19%	14%	14%
Injectable Contraceptives	34%	34%	7%	7%
Progestin Only Pills	13%	13%	2%	2%

A3. Cycle time (average)

Fulfillment Channel Task Order	Direct Drop Fulfillment		Warehouse Fulfillment		Total
	Air	Sea	Air	Sea	
TO3	198	347	256	252	264
Combined Oral Contraceptives		813	238	189	271
Copper-bearing Intrauterine Devices			374	337	366
Emergency Oral Contraceptives	193				193
Implantable Contraceptives		231	226	182	216
Injectable Contraceptives		194	58	209	176
Other Non-pharma		612		384	422
Progestin Only Pills			279	107	236
Standard Days Method	204				204
Total	198	347	256	252	264

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

Country	Type of Loss	Product Group	Loss Value	Loss Denominator	% Loss
Rwanda	Damage	Combined oral contraceptive	\$2	\$1,004,604	0.00%
RDC	Damage	Injectable Contraceptives	\$27	\$5,175,186	0.00%
RDC	Expiry	NA	\$0	\$16,068,432	0.00%

B6. Quarterly supply plan submissions

Product Group	Supply plan submission rate	# of supply plans required
Condoms	88%	16
FP commodities	88%	17

A8. Shelf life remaining

% Shelf Life Remaining	Inventory Balance
86%	\$16,068,433

Crosscutting indicators

A14. Average vendor ratings

Vendor Type	Average vendor rating
Commodity Supplier	76%
Freight Forwarder	86%

C4. and C5. BI&A Submissions

% of files submitted	% of files submitted on time
84%	81%

Complete Quarterly Results (TO4)

Reporting Period

2019-Q2

Crosscutting indicators

A14. Average vendor ratings

Vendor Type	Average vendor rating
Commodity Supplier	76%
Freight Forwarder	86%

C4. and C5. BI&A Submissions

% of files submitted	% of files submitted on time
84%	81%

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
TO4	81%	330	81%	332	0.6%	510	61%	\$765,375
Food and WASH					0.0%	8		
Laboratory	98%	44	100%	44	0.0%	44	100%	\$184,140
Other Non-pharma	88%	8	100%	7	0.0%	29	0%	\$299,217
Other Pharma	78%	278	78%	281	0.7%	424	100%	\$282,017
Other RTK					0.0%	5		
Total	81%	330	81%	332	0.6%	510	61%	\$765,375

B6. Quarterly supply plan submissions

Product Group	Supply plan submission rate	# of supply plans required
MCH commodities	67%	6

A3. Cycle time (average)

Fulfillment Channel Task Order	Direct Drop Fulfillment			Total
	Air	Land	Sea	
TO4	397	85	400	397
Laboratory	369	85		363
Other Non-pharma	366		311	352
Other Pharma	405		401	403
Total	397	85	400	397

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
A03	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. The project is implementing new dwell tracking procedures, with the intent of reporting dwell-adjusted cycle time by FY2020.

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 Engagements

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 only Artemether/Lumefantrine and Artesunate/Amodiaquine 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.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country



SDP Stockout Rates by Country - Overall

	Angola	Bots wana	Burkina Faso	Burma	Burun di	Came roon	Ethi opia	Ghana	Guinea	Haiti	Indo nesia	Kenya	Lesotho	Malawi	Mali	Mozam bique	Namibia	Nepal	Nigeria	Pakistan	Rwanda	Zambia	Zimbab we
Not Supported				0.0%																	2.8%		
Supported	47.6%	8.9%	10.0%		1.3%	4.4%	7.5%	8.1%	11.9%	0.3%	0.0%	16.7%	18.9%	6.6%	15.9%	17.7%	0.0%	11.8%	9.5%	15.9%	1.3%	21.2%	10.8%

Out-of-Cycle		Uganda	
Country	Stockout rate	Country	Stockout rate
Nepal	10.7%	Uganda	5.9%

Data Notes

Out-of-Cycle refers to countries that report on a full quarter delay due to the reporting and data processing time required in country.

Uganda is reported separately because its overall result includes a composite stockout rate (AL inability to treat). Composite stockout rates for AL inability to treat and PRH methods are excluded from other countries' overall results, so as to prevent double-counting of products included in the composites. For more details on the Uganda case, see "SDP Stockout Rates by Country - Malaria" in the following pages.

SDP Stockout Rates by Country - HIV/AIDS

GHSC-PSM Support Task Order	Not Supported		Supported																	
	Burma	Namibia	Angola	Botswana	Burundi	Cameroon	Ethiopia	Ghana	Haiti	Indonesia	Lesotho	Malawi	Mozambique	Namibia	Nigeria	Rwanda	Uganda	Zambia	Zimbabwe	
TO1-HIV/AIDS	0.0%	2.8%	10.3%	8.9%	2.2%	4.4%	7.9%	18.1%	0.4%	0.0%	18.9%	7.0%	8.3%	0.0%	10.9%	1.3%	8.7%	8.9%	11.8%	
1st line adult ARV	0.0%	0.0%	0.0%	0.0%	1.1%	2.2%	2.9%	8.5%	0.7%	0.0%	0.0%	0.7%	0.6%	0.0%	4.8%	1.1%	3.9%	3.3%	1.2%	
2nd line adult ARV	0.0%	2.2%	11.1%	0.0%	2.2%	0.0%	12.9%	35.9%	1.4%	0.0%	4.6%	8.8%	8.0%	0.0%	5.8%	0.8%	5.8%	4.9%	6.8%	
Pediatric ARV	0.0%	2.2%	0.0%	3.0%	1.2%	21.1%	3.2%	66.3%	0.0%	0.0%	6.5%	2.7%	2.3%	0.0%	3.1%	2.4%	14.4%	9.6%	19.4%	
First RTK		2.2%	0.0%	8.7%	5.7%	7.9%	12.7%	13.0%	0.0%	0.0%	5.6%	5.8%	12.9%	0.0%	10.0%	1.5%	3.6%	4.6%	5.7%	
Second RTK		0.0%	0.0%	21.7%	1.6%	1.7%	24.0%	12.1%	0.7%	0.0%	14.7%	18.7%	29.8%	0.0%	21.4%	1.6%	4.9%	4.0%	4.6%	
Tie-breaker RTK		10.9%					33.8%			0.0%	32.1%			0.0%	8.5%		19.4%		47.9%	
Viral load reagent	0.0%			21.4%			5.3%				0.0%		0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	
Viral load consumable	0.0%			14.3%			16.7%								0.0%	0.0%				
EID reagent	0.0%			40.0%			31.6%				0.0%		0.0%		20.0%	0.0%	0.0%	9.1%	0.0%	
EID consumable	0.0%			30.0%			5.2%								0.0%	0.0%				
Male condoms (HIV)		4.8%	0.0%	0.0%	0.8%		4.8%	7.5%	0.0%		4.4%	9.3%	22.1%	0.0%	18.0%	0.9%		18.0%	2.7%	
Female condoms (HIV)		0.0%	62.5%	6.7%	0.3%			22.4%			7.9%	3.1%	30.7%	0.0%	10.4%	1.9%		19.8%	5.8%	
RUTF							13.0%				92.9%						32.0%			

SDP Stockout Rates by Country - Malaria

FY Quarter

2019-Q2

Table 1. Overall malaria stockout rates with product breakdown

GHSC-PSM Support Task Order	Supported													
	Angola	Burkina Faso	Burundi	Ethiopia	Ghana	Guinea	Kenya	Malawi	Mali	Mozambique	Nigeria	Rwanda	Zambia	Zimbabwe
TO2-Malaria	48.4%	10.0%	1.5%	11.7%	41.0%	10.1%	18.6%	5.8%	14.2%	28.0%	6.8%	1.2%	20.8%	9.5%
AL 6x1	33.3%	22.9%		18.1%	44.3%	8.5%	10.2%	1.1%	7.7%	31.8%	5.3%	1.4%	26.2%	9.7%
AL 6x2	33.3%	5.9%		9.7%	60.4%	7.3%	35.2%	8.3%	13.1%	29.2%	5.9%	1.1%	16.3%	17.7%
AL 6x3	33.3%	18.5%		12.5%	84.2%	8.3%	29.6%	6.8%	22.9%	35.7%	9.4%	1.3%	13.2%	10.0%
AL 6x4	33.3%	9.7%		7.5%	27.5%	13.8%	17.1%	5.1%	27.1%	34.1%	6.1%	0.9%	18.8%	6.3%
AS/AQ 100/270mgx3	52.7%		2.1%		69.8%						7.5%			
AS/AQ 100/270mgx6	52.9%		4.2%		78.8%						8.2%			
AS/AQ 25/67.5mg	54.0%		0.7%		50.9%						5.9%			
AS/AQ 50/135mg	39.1%		1.1%		46.3%						7.4%			
mRDT	31.4%	1.1%	0.7%	15.8%	15.9%	0.8%	10.3%	1.8%	6.5%	10.5%	6.7%	1.4%	9.2%	3.1%
SP	62.2%	5.0%	0.7%		13.5%	13.0%	9.0%	6.3%	8.0%	23.8%	7.1%		43.2%	11.4%
LLINs		6.7%	0.9%		32.2%	18.9%		11.8%	16.0%	24.9%	6.3%			

Data Notes

Table 1:

Overall malaria stockout rates are calculated as an aggregation of stock observations across all malaria products. AL inability to treat is excluded from the overall result, as AL presentations are already factored in individually.

Table 2:

AL inability to treat is presented for each country that uses AL, separately from the overall results in Table 1.

Table 3:

In Uganda, health facilities report on all presentations of AL as a single item, equivalent to AL inability to treat. Stockout data is not available by individual presentation. As a result, GHSC-PSM incorporates AL inability to treat into Uganda's TO2 overall stockout rate to ensure that these essential products are represented.

Table 2. Inability to treat with AL (Composite stockout rate of four AL presentations)

GHSC-PSM Support Task Order	Supported														
	Angola	Burkina Faso	Ethiopia	Ghana	Guinea	Kenya	Malawi	Mali	Mozambique	Nigeria	Rwanda	Uganda	Zambia	Zimbabwe	
TO2-Malaria															
AL inability to treat	0.0%	1.4%	4.5%	6.4%	0.6%	5.2%	0.2%	1.0%		10.2%	1.4%	0.0%	2.4%	2.4%	1.8%

Table 3. Malaria stockout rates for Uganda

GHSC-PSM Support Task Order	Supported Uganda
TO2-Malaria	3.9%
AL inability to treat	2.4%
mRDT	4.0%
SP	5.7%

SDP Stockout Rates by Country - Family Planning

In GHSC-PSM-supported regions

Table 1. Family planning stockout rates - Product level

Task Order	Burundi	Ethiopia	Ghana	Guinea	Haiti	Kenya	Malawi	Mali	Mozambique	Nepal	Nigeria	Pakistan	Rwanda	Uganda	Zambia
TO3-PRH	0.5%	5.5%	5.2%	14.7%	0.2%	9.2%	7.0%	17.6%	24.9%	11.8%	14.2%	15.9%	1.2%	6.1%	31.7%
Combined oral contraceptive with iron	0.6%	5.9%	5.5%	21.0%	0.5%	4.5%	8.0%	20.2%		9.0%		14.8%	0.6%		34.9%
Combined oral contraceptive									19.2%		13.2%				
DMPA-Subcutaneous injectable									48.2%						
NET-En Injectable			3.2%								10.1%				40.7%
DMPA-Intramuscular injectable	0.3%	2.1%	1.8%	9.2%	0.0%	7.6%	11.9%	7.7%	32.8%	9.3%	11.7%	18.5%	1.6%	6.1%	20.8%
1-rod implant		11.0%	3.0%			10.3%	8.7%				30.5%		2.0%		40.9%
2-rod implant	0.1%	6.0%	2.3%	14.6%	0.9%	5.4%	12.3%	10.8%	24.0%	20.3%	26.6%		1.4%		37.9%
Emergency contraceptive, 2 tablets	1.0%	6.4%				16.5%	2.0%		17.1%						
Progestin only pills	0.1%	6.2%	9.4%	20.7%		15.6%	6.8%	31.2%	7.5%		11.4%		0.6%		65.8%
Copper-bearing IUD	0.2%	2.3%	23.4%	14.4%	0.0%	5.4%	0.4%	17.2%	14.2%	20.3%	10.8%	13.2%	1.5%		25.0%
Calendar-based awareness methods					0.0%			18.0%					1.8%		
Male condoms (FP)	0.8%	4.8%	7.5%	9.9%	0.0%	8.5%	9.3%	15.0%	22.1%	10.0%	10.8%	16.2%	0.9%		18.0%
Female condoms (FP)	0.3%		22.4%				3.1%	24.5%	30.7%		17.3%		1.9%		19.8%

Table 2. Family planning stockout rates - Method level

Tracer Product	Burundi	Ethiopia	Ghana	Guinea	Haiti	Kenya	Malawi	Mali	Mozambique	Nepal	Nigeria	Pakistan	Rwanda	Uganda	Zambia
Combined oral methods	0.6%	5.9%	5.5%	21.0%	0.5%	4.5%	8.0%	20.2%	19.2%	9.0%	13.2%	14.8%	0.6%		34.9%
Injectable contraceptives	0.3%	2.1%	1.5%	9.2%	0.0%	7.6%	11.9%	7.7%	31.8%	9.3%	4.7%	18.5%	1.6%	6.1%	6.6%
Implantable contraceptives	0.1%	5.7%	1.2%	14.6%	0.9%	1.3%	10.7%	10.8%	24.0%	20.3%	22.2%		0.0%		6.8%
Emergency oral contraceptives	1.0%	6.4%				16.5%	2.0%		17.1%						
Progestin-only methods	0.1%	6.2%	9.4%	20.7%		15.6%	6.8%	31.2%	7.5%		11.4%		0.6%		65.8%
Copper-bearing IUD	0.2%	2.3%	23.4%	14.4%	0.0%	5.4%	0.4%	17.2%	14.2%	20.3%	10.8%	13.2%	1.5%		25.0%
Calendar-based awareness methods					0.0%			18.0%					1.8%		
Male condoms (FP)	0.8%	4.8%	7.5%	9.9%	0.0%	8.5%	9.3%	15.0%	22.1%	10.0%	10.8%	16.2%	0.9%		18.0%
Female condoms (FP)	0.3%		22.4%				3.1%	24.5%	30.7%		17.3%		1.9%		19.8%

Data Notes

The PRH "method level" (Table 2) refers to the percentage of facilities stocked out of all products offered within a given method. The stockout rate at the "product" level (Table 1) refers to the percentage of sites stocked out of that particular product (depending on what is offered at a particular facility). A facility could be stocked out of one product and not stocked out at the method level. Only product-level stock observations are factored into overall performance at the task order level, to prevent double-counting between products and methods.

Out-of-Cycle

Task Order	Nepal
TO3-PRH	10.7%
Combined oral contraceptive with iron	8.1%
Combined oral contraceptive	
DMPA-Subcutaneous injectable	
NET-En Injectable	
DMPA-Intramuscular injectable	9.1%
1-rod implant	
2-rod implant	18.3%
Emergency contraceptive, 2 tablets	
Progestin only pills	
Copper-bearing IUD	17.6%
Calendar-based awareness methods	
Male condoms (FP)	9.1%
Female condoms (FP)	

Out-of-Cycle

Tracer Product	Nepal
Combined oral methods	8.1%
Injectable contraceptives	9.1%
Implantable contraceptives	18.3%
Emergency oral contraceptives	
Progestin-only methods	
Copper-bearing IUD	17.6%
Calendar-based awareness methods	
Male condoms (FP)	9.1%
Female condoms (FP)	



Stocked According to Plan Rates by Country

Country	Stocked according to plan	Overstocked	Understocked	Stocked out
Vietnam	67%		33%	
Malawi	57%	14%	29%	
Haiti	52%	36%	12%	
Indonesia	50%	17%	33%	0%
Lesotho	42%	18%	21%	18%
Burma	42%	33%	22%	4%
Burundi	41%	23%	26%	10%
Zambia	38%	24%	27%	11%
Mozambique	34%	20%	38%	8%
Namibia	33%	8%	44%	15%
Rwanda	33%	30%	35%	1%
Burkina Faso	29%	57%	14%	
Liberia	28%	12%	46%	14%
Uganda	27%	50%	21%	3%
Pakistan	25%	38%	0%	38%
Kenya	24%	21%	26%	29%
Nigeria	23%	20%	57%	
Ghana	22%	30%	30%	17%
Botswana	19%	25%	47%	8%
Zimbabwe	19%	50%	31%	0%
South Sudan	17%	6%	72%	6%
Ethiopia	15%	41%	31%	13%
Guinea	13%	14%	73%	
Cameroon	12%	34%	39%	15%
Mali	7%	27%	7%	58%
Angola	5%	9%	41%	45%

Data Notes

Above data shows observations from the central and first subnational storage levels for which data is available in each country. Data on individual country pages may include additional supply chain levels.

LMIS Reporting Rates by Country

Country	Not Supported	Supported
Botswana		100%
Haiti		100%
Indonesia		100%
Lesotho		100%
Kenya		100%
Nigeria		96%
Burma	96%	
Rwanda		96%
Guinea		95%
Namibia	92%	100%
Uganda		93%
Mali		92%
Zambia		91%
Ethiopia		91%
Malawi		90%
Zimbabwe		80%
Burundi		79%
Mozambique		77%
Cameroon		76%
Burkina Faso		76%
Pakistan		68%
Angola		48%
Nepal		24%

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

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Country M&E Indicator Performance

Country



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	58	10.3%
1st line adult ARV	9	0.0%
2nd line adult ARV	9	11.1%
Pediatric ARV	5	0.0%
First RTK	9	0.0%
Second RTK	9	0.0%
Male condoms (HIV)	9	0.0%
Female condoms (HIV)	8	62.5%
Total	58	10.3%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	2,762	48.4%
AL 6x1	12	33.3%
AL 6x2	12	33.3%
AL 6x3	12	33.3%
AL 6x4	12	33.3%
AS/AQ 100/270mgx3	450	52.7%
AS/AQ 100/270mgx6	450	52.9%
AS/AQ 25/67.5mg	450	54.0%
AS/AQ 50/135mg	450	39.1%
mRDT	462	31.4%
SP	452	62.2%
Total	2,762	48.4%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
Total		

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	9	100%
TO2-Malaria	980	47%
Total	989	48%

Analysis

TO1: All nine project-supported SDPs (100 percent) reported by the deadline or up to one week after. This report submission rate has been observed since the first quarter of FY2018. TO2: The direct support of GHSC-PSM in the six PMI provinces resulted in the inclusion of 968 SDPs reporting quarterly under this indicator. With the 12 national hospitals that used to report under this indicator, now a total of 980 SDPs will report on this indicator.

TO1: Two HIV tracers were found stocked out (second-line ARV and female condoms). The second-line ARV was found stocked out at Kilamba Kiayi hospital. Delays in attending requests of the SDPs by the provincial warehouse; lack of stock status levels monitoring; and ineffective inventory control were identified as the causes of the expiration and stock-out of this product, as the same product with a long expiration date was available in the provincial warehouse. TO2: All four AL presentations decreased in performance compared to last quarter in all 12 national hospitals. The increase in AL stock-outs during this quarter was linked to low stock levels available at central level (CECOMA). Stock status observations from January to March 2019 showed availability of less than one month of stock of AL presentations at CECOMA. During this quarter, GHSC-PSM completed embedding malaria provincial technical advisers in the six PMI provinces. GHSC-PSM's direct support in provinces resulted in 968 SDPs reporting quarterly under this indicator. These results will be used as a baseline to monitor the performance of these SDPs during the project lifecycle: [AS/AQ 25/67.5mgx3: 54%] [AS/AQ 50/135mgx3: 39%] [AS/AQ 100/270mgx3: 53%] [AS/AQ 100/270mgx6: 53%] [RDT: 31%] [SP: 62%]

Warehouse stock status and product losses

Country

Angola

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	87	20%	46%	16%	19%
TO1-HIV/AIDS	21	14%	19%	38%	29%
TO2-Malaria	30	3%	73%	17%	7%
TO3-PRH	36	42%	33%	3%	22%
Subnational level 1	1,209	47%	41%	4%	8%
TO1-HIV/AIDS	21	14%	38%	14%	33%
TO2-Malaria	540	39%	53%	4%	4%
TO3-PRH	648	54%	31%	4%	11%
Total	1,296	45%	41%	5%	9%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
TO2	Global	Transit	Damage	Severe Malaria Meds	\$14	\$3,554,341	0.00%

Indicator Analysis

B2	TO1: At the central level, no significant changes in stock status were observed. The stock status for the adult and pediatric first-line ARVs remained with 100 percent overstocked observations. During Q2, INLS received 166,985 bottles of TLE, the adult first line. The second-line ARV moved from 100 percent overstocked to 100 percent observations stocked according to plan. The first RTK moved from 67 percent understocked and 33 percent overstocked observation to 100 percent observations stocked according to plan. TO2: From 12 stock status observations of all four Artemether-Lumefantrine-based ACT presentations at the central level, 11 observations (92 percent) were found understocked and 1 observation (8 percent) stocked out. In the previous two quarters, all 4 AL presentations were found to be understocked.
C7	Eight vials of injectable aretsunate have been lost this quarter, likely damaged by forklift.

Supply plans, innovations, and strategic activities

Total Innovations implemented this quarter

New technologies
2

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
Crosscutting	New technologies	SIGLOFA (ANGOLA version of OpenLMIS) is open source, web-based, eLMIS software purpose-built to manage health commodity supply chains. The OpenLMIS initiative incorporates a community-focused approach to develop open source and customizable LMIS systems specifically designed for low-resource settings.
Crosscutting	New technologies	TransIT is a transportation information tool that aggregates end-to-end data from distribution planning through delivery to the recipient to track performance, location and cost. It was designed to monitor and track last mile deliveries. Users load orders for distribution on the system, and they can trace and manage distribution/transport key indicators. These may include, butd are not limited to, the following: Average kilometers per shipment Percentage of vehicle capacity utilization Average transport cost per shipment Cost per kilometer Percentage of outstanding PODs vs. deliveries Percentage of on-time deliveries per transporter Number of damaged/short/overshipments

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
Malaria commodities	Yes

Analysis

Angola has submitted all required supply plans this quarter

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	Total
Female	4	4
Total	4	4

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	Total
SDP	4	4
Total	4	4

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	Total
TO-specific	4	4
Total	4	4

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	Total
Transportation and Distribution	4	4
Total	4	4

Analysis

Four health professionals from one PEPFAR-supported SDP benefited from a training session on inventory management.

Molecular Instruments and HIV Tracer Products

Country

Angola

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/600 mg
2nd line adult ARV	Lopinavir/Ritonavir
Pediatric ARV	Abacavir 60mg/Lamivudine 30mg
First RTK	Determine
Second RTK	Uni-Gold
Tie-breaker RTK	Not reported

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

Country

FY Quarter

Angola

2019-Q2

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	10.3%	58
1st line adult ARV	0.0%	9
2nd line adult ARV	11.1%	9
Pediatric ARV	0.0%	5
First RTK	0.0%	9
Second RTK	0.0%	9
Male condoms (HIV)	0.0%	9
Female condoms (HIV)	62.5%	8
TO2-Malaria	48.4%	2,762
AL 6x1	33.3%	12
AL 6x2	33.3%	12
AL 6x3	33.3%	12
AL 6x4	33.3%	12
AS/AQ 100/270mgx3	52.7%	450
AS/AQ 100/270mgx6	52.9%	450
AS/AQ 25/67.5mg	54.0%	450
AS/AQ 50/135mg	39.1%	450
mRDT	31.4%	462
SP	62.2%	452
Total	47.6%	2,820

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	0.0%	12

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	100%	9
TO2-Malaria	47%	980

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	16%	19%	46%	20%	81
TO1-HIV/AIDS	38%	29%	19%	14%	21
TO2-Malaria	17%	7%	73%	3%	30
TO3-PRH	3%	22%	33%	42%	36
Subnational level 1	4%	8%	41%	47%	1,209
TO1-HIV/AIDS	14%	33%	38%	14%	21
TO2-Malaria	4%	4%	53%	39%	540
TO3-PRH	4%	11%	31%	54%	648
Total	5%	9%	41%	45%	1,296

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

C2. Number of people trained

Task Order	Female	Total
TO1-HIV/AIDS	4	4
Total	4	4

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
Malaria commodities	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

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Country M&E Indicator Performance

Country

Botswana



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	258	8.9%
1st line adult ARV	33	0.0%
2nd line adult ARV	33	0.0%
Pediatric ARV	33	3.0%
First RTK	23	8.7%
Second RTK	23	21.7%
Viral load reagent	14	21.4%
Viral load consumable	14	14.3%
EID reagent	5	40.0%
EID consumable	20	30.0%
Male condoms (HIV)	30	0.0%
Female condoms (HIV)	30	6.7%
Total	258	8.9%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
Total		

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	33	100%
Total	33	100%

Analysis

The overall HIV stock-out rate increased slightly this quarter, driven by increased stock-outs of lab reagents and consumables. Stock-outs of adult ARVs have held steady at 0 percent, while pediatric ARVs decreased from 7 to 3 percent. The system has maintained a low stock-out rate for this product despite central-level stockouts, due mainly to stock redistribution efforts. Among the lab commodities, stock-outs increased despite central-level availability. The Central Medical Store (CMS) was not resupplying and distributing stocks for an extended time between February and March 2019 due to physical stock-take and Warehouse Management System (WMS) upgrade activities, part of a new outsourced contract award for warehousing and distribution operations.

The reporting rate for the ARV LMIS to CMS in Q2 was 100 percent, with all 33 PEPFAR-focus SDPs reporting. This is an increase over the previous quarter's reporting rate of 91 percent. GHSC-PSM seconded one of the recently hired Site Monitors to CMS to fill the current gaps of human resources at the Logistics Management Unit (LMU). Starting from Q2, the seconded staff have been consistently following up LMIS reports, cleaning and uploading data to the Supply Chain Manager software, and providing regular written and oral feedback to reporting facilities, which has contributed to the improved reporting rate.

Warehouse stock status and product losses

Country

Botswana

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	36	8%	47%	19%	25%
TO1-HIV/AIDS	36	8%	47%	19%	25%
Total	36	8%	47%	19%	25%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

- B2** First-line adult and pediatric ARVs continue to be understocked at CMS due to ongoing delays in the tendering process for a new framework contract. While the tender evaluation was completed near the beginning of the quarter, one of the bidders protested the outcomes and a contract cannot be awarded until a resolution is made by the court. This means CMS will continue to make small local procurements in the meantime, the quantity of which will not be adequate to top up stocks to maximum level. RTKs had mixed performance. Gap-filling procurement support from PEPFAR, procured in liaison with GHSC-RTK, in the previous quarter has played a significant role in maintaining adequate stocks at CMS. CMS also procured 3,000 kits of 100 tests of the first RTK delivered in February 2019. Performance for lab items is also mixed. Similar to last quarter, central level availability for both Viral Load and EID products has been maintained through local micro-procurements.
- C7** GHSC-PSM does not have custody of any products in country and therefore does not report on product losses.

Supply plans, innovations, and strategic activities

Country

Botswana 

Total Innovations implemented this quarter

Type of innovation # of innovations

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
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B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
ARVs	Yes
RTKs	Yes

Analysis

Botswana submitted all required supply plans this quarter. The ARV management team, of which GHSC-PSM is a member, meets every fortnight and uses Pipeline for monitoring stock and making supply and procurement decisions for ARVs and RTKs.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Molecular Instruments and HIV Tracer Products

Country

Botswana

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

GHSC-PSM does not manage or support maintenance for any molecular instruments in Botswana.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Emtricitabine/Efavirenz 300/200/600mg
2nd line adult ARV	Lopinavir/Ritonavir 200/50mg
Pediatric ARV	Lopinavir/Ritonavir 125mg
First RTK	Determine
Second RTK	Uni-Gold
Tie-breaker RTK	ELISA Confirmatory Test
Viral load reagent	Cobas Ampliprep/Cobas taqman HIV-1 test 48 tests
Viral load consumable	Cobas Ampliprep/CobasTaqman Wash reagent 5.1L
EID reagent	Kit CAP-G/CTM HIV 1-Qual v2.0 (CEIVD), 48 Tests
EID consumable	Dried Blood Spot Collection Kit

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

Country

FY Quarter

Botswana

2019-Q2

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	8.9%	258
1st line adult ARV	0.0%	33
2nd line adult ARV	0.0%	33
Pediatric ARV	3.0%	33
First RTK	8.7%	23
Second RTK	21.7%	23
Viral load reagent	21.4%	14
Viral load consumable	14.3%	14
EID reagent	40.0%	5
EID consumable	30.0%	20
Male condoms (HIV)	0.0%	30
Female condoms (HIV)	6.7%	30
Total	8.9%	258

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
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See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	100%	33

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	19%	25%	47%	8%	36
TO1-HIV/AIDS	19%	25%	47%	8%	36
Total	19%	25%	47%	8%	36

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

C2. Number of people trained

Task Order	Total
Total	

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
ARVs	1	1
RTKs	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
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For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

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Country M&E Indicator Performance

Country

Burkina Faso



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	12,362	10.0%
AL 6x1	1,766	22.9%
AL 6x2	1,766	5.9%
AL 6x3	1,766	18.5%
AL 6x4	1,766	9.7%
mRDT	1,766	1.1%
SP	1,766	5.0%
LLINs	1,766	6.7%
Total	12,362	10.0%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
Total		

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO2-Malaria	2,337	76%
Total	2,337	76%

Analysis

Burkina Faso's overall malaria stockout rate was 10 percent, down substantially from 19 percent last quarter, with inability to treat down from 4 to 1.4 percent. All products experienced reduced stockout rates, with the exceptions of LLINs and AS/AQ (showing a slight uptick). AS/AQ is being phased out in favor of ALu. Some of this success may be due to the implementation of recommendations from the End Use Verification (EUV) survey conducted in late September and October and disseminated later in the year, as well as the training of head nurses and stock managers on the integrated LMIS.

SDP reporting rates to the LMIS increased slightly from 73 to 76 percent.

Warehouse stock status and product losses

Country

Burkina Faso

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	7		14%	29%	57%
TO2-Malaria	7		14%	29%	57%
Total	7		14%	29%	57%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
TO2	Global	Transit	Damage	ACTs	\$3,114	\$4,514,152	0.07%

Indicator Analysis

B2 Overstocking increased from 33 to 57 percent this quarter. About 1.5 million Alu 6x1 treatments were received in March in preparation for the upcoming malaria season, while the quantities of Alu 6x3 and 6x4 remain high due to their late introduction into the system in August 2018, with consumption still predicted to be low during the current off-season. The excess stock of SP is due to the unplanned donation of nearly 3.8 million doses from Saudi Arabia.

Supply plans, innovations, and strategic activities

Country

Burkina Faso

Total Innovations implemented this quarter

Type of innovation # of innovations

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
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B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
Malaria commodities	Yes

Analysis

The malaria commodity supply plan was developed and submitted to the home office forecasting and supply planning team as expected this quarter.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO2-Malaria	Total
Female	39	39
Male	120	120
Total	159	159

C2. Number of people trained by funding source and type

Type	TO2-Malaria	Total
TO-specific	159	159
Total	159	159

C2. Number of people trained by supply chain level

Supply Chain Level	TO2-Malaria	Total
Central	67	67
Subnational level 1	92	92
Total	159	159

C2. Number of people trained by technical area

Supply Chain Function	TO2-Malaria	Total
MIS	51	51
Monitoring and Evaluation	16	16
Transportation and Distribution	92	92
Total	159	159

Analysis

Trainings this quarter included monitoring and evaluation and MIS (central level), and transportation/distribution (regional level).

Complete Results and Denominators

Country

FY Quarter

Burkina Faso

2019-Q2

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO2-Malaria	10.0%	12,362
AL 6x1	22.9%	1,766
AL 6x2	5.9%	1,766
AL 6x3	18.5%	1,766
AL 6x4	9.7%	1,766
mRDT	1.1%	1,766
SP	5.0%	1,766
LLINs	6.7%	1,766
Total	10.0%	12,362

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	1.4%	1,766

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO2-Malaria	76%	2,337

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	29%	57%	14%		7
TO2-Malaria	29%	57%	14%		7
Total	29%	57%	14%		7

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

C2. Number of people trained

Task Order	Female	Male	Total
TO2-Malaria	39	120	159
Total	39	120	159

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
Malaria commodities	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country

Service Delivery Point Stockouts and Reporting Rates

For countries with data available from GHSC-PSM non-supported regions

Country

Burma

B1. Stockout rate at service delivery points - SDPs located in supported regions

GHSC-PSM Support	Stockout rate	# SDP stock observations
Total		

B1. Stockout rate at service delivery points - SDPs located in non-supported regions

GHSC-PSM Support	Stockout rate	# SDP stock observations
Not Supported	0.0%	18
TO1-HIV/AIDS	0.0%	18
1st line adult ARV	0.0%	3
2nd line adult ARV	0.0%	3
Pediatric ARV	0.0%	2
Viral load reagent	0.0%	3
Viral load consumable	0.0%	3
EID reagent	0.0%	2
EID consumable	0.0%	2
Total	0.0%	18

B3. LMIS reporting rate

GHSC-PSM Support	Total # of SDPs required to report	Reporting rate
Not Supported	8,272	96%
Total	8,272	96%

Analysis

In Myanmar (Burma), GHSC-PSM continued its technical support to three ART centers (Mingalardon Specialist Hospital and Waibargi Specialist Hospital in Yangon, and Naypyitaw Hospital) for quarterly ARV stock monitoring, and four viral load PCR sites (National Health Laboratory and Mingalardon Specialist Hospital in Yangon, Public Health Laboratory in Mandalay and Magway Hospital Lab) for quarterly stock monitoring of viral load commodities. In Q2, all three ART centers and three out of four Abbot viral load sites provide stock monitoring reports, and two (total of two labs in country) had a functioning stock monitoring /EWS system. As result, no ART sites, viral load labs or EID labs had stock-outs of any tracer commodities in Q2.

In Q2, the tertiary-level SDPs (three ARV centers, three Abbot viral load/EID sites and three TB labs) submitted 90 percent of LMIS reports on time. GHSC-PSM continues its support to SDPs with LMIS in three regions (Ayeyarwaddy, Bago and Magway) below the township level. Out of 4,131 facilities required to report, 3,962 submitted LMIS reports within one week, for a reporting rate of 96 percent.

Warehouse stock status and product losses

Country

Burma

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	6	17%		33%	50%
TO1-HIV/AIDS	3			33%	67%
TO2-Malaria	3	33%		33%	33%
Subnational level 1	119	3%	23%	42%	32%
TO1-HIV/AIDS	80	3%	20%	53%	25%
TO2-Malaria	39	5%	28%	21%	46%
Total	125	4%	22%	42%	33%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

B2

This quarter, Burma will be reporting a national picture of stock statuses for the first time under GHSC-PSM. As GHSC-PSM is supporting mSupply eLMIS software for all government warehouses as well as receiving stock data from other implementing partners, a complete national picture is possible. For TO1 at the central level, commodities were stocked according to plan 33 percent of the time. At the subnational 1 level, commodities were stocked according to plan 53 percent of the time. Less than 3 percent of sites at the subnational 1 level reported any stock-outs. TO2 commodities were stocked according to plan at the central level 33 percent of the time and 22 percent of the time at subnational 1 level. However, many of observations found overstocks (33 percent central and 49 percent subnational 1), as would be expected just prior to the rainy season.

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	TO2-Malaria	Total
Female	10	2	12
Male	9	3	12
Total	19	5	24

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	TO2-Malaria	Total
Central	19	5	24
Total	19	5	24

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	TO2-Malaria	Total
Cross-TO	19	5	24
Total	19	5	24

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	TO2-Malaria	Total
MIS	19	5	24
Total	19	5	24

Analysis

In FY19Q2, Burma had an mSupply super user training for LMIS on March 7-8, 2019 at Naypyidaw with cross-task order funding. A total of 24 participants attended, with six facilitators and two staff from GHSC-PSM. Among participants were nine males and ten females for TO1, and three males and two females for TO2.

Molecular Instruments and HIV Tracer Products

Country

Burma

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Efavirenz/Lamivudine/Tenofovir DF 600/300/300 mg
2nd line adult ARV	Lopinavir/Ritonavir 200/50 mg
Pediatric ARV	Abacavir/Lamivudine 60/30 mg
Viral load reagent	Abbott RealTime HIV-1 Amplification Reagent Kit – Quantitative
Viral load consumable	2.0 ml skirted base cryovials with knurls
EID reagent	Abbott RealTime HIV-1 Amplification Reagent Kit – Qualitative
EID consumable	Tube, screw cap, conical, 50ml set, box/500

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

Country

FY Quarter

Burma

2019-Q2

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	0.0%	18
1st line adult ARV	0.0%	3
2nd line adult ARV	0.0%	3
Pediatric ARV	0.0%	2
Viral load reagent	0.0%	3
Viral load consumable	0.0%	3
EID reagent	0.0%	2
EID consumable	0.0%	2
Total	0.0%	18

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
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See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
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B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Total					

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	10	9	19
TO2-Malaria	2	3	5
Total	12	12	24

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
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C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
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For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country

Burundi



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	3,837	2.2%
1st line adult ARV	786	1.1%
2nd line adult ARV	136	2.2%
Pediatric ARV	322	1.2%
First RTK	867	5.7%
Second RTK	673	1.6%
Male condoms (HIV)	762	0.8%
Female condoms (HIV)	291	0.3%
Total	3,837	2.2%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	5,599	1.5%
AS/AQ 100/270mgx3	829	2.1%
AS/AQ 100/270mgx6	824	4.2%
AS/AQ 25/67.5mg	752	0.7%
AS/AQ 50/135mg	786	1.1%
mRDT	864	0.7%
SP	752	0.7%
LLINs	792	0.9%
Total	5,599	1.5%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	5,268	0.5%
Combined oral contraceptive with iron	789	0.6%
DMPA-Intramuscular injectable	796	0.3%
2-rod implant	738	0.1%
Emergency contraceptive, 2 tablets	676	1.0%
Progestin only pills	681	0.1%
Copper-bearing IUD	535	0.2%
Male condoms (FP)	762	0.8%
Female condoms (FP)	291	0.3%
Total	5,268	0.5%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	861	72%
TO2-Malaria	861	83%
TO3-PRH	868	83%
Total	2,590	79%

Analysis

Burundi made refinements to its measurement of the reporting rate this quarter. The team is now able to segment health facilities by type, focusing only on facilities that receive public sector HIV and malaria commodities, and that offer family planning products. The rate also now focuses on a single month's consumption reporting, per the indicator definition, rather than a proxy based on additional data points. The new method yields a lower reporting rate than the previous quarter, but is considered more accurate. The project is coordinating with DSNIS to work with the health districts to improve complete and timely reporting.

Stockout rates across all three programs (HIV, malaria and family planning) have continued to remain low and stable in Burundi. Contributing factors may include good logistics management at peripheral levels, supportive supervision, automation of logistics management using Channel software and improved communication through WhatsApp groups, allowing updates on stock status in real time.

Warehouse stock status and product losses

Country

Burundi

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	46	2%	41%	20%	36%
TO1-HIV/AIDS	17	0%	47%	18%	35%
TO2-Malaria	21	0%	43%	19%	38%
TO3-PRH	8	13%	13%	25%	50%
Subnational level 1	837	10%	25%	42%	22%
TO1-HIV/AIDS	264	20%	24%	45%	12%
TO2-Malaria	573	6%	25%	41%	27%
Total	883	10%	26%	41%	23%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

- B2** GHSC-PSM continues to support activities aimed at improving inventory management within the supply chain. Key activities include reinforcement of strong reporting practices at the district level, collaboration with DSNIS to improve data completeness in DHIS2, supporting compliance with requisition schedules to improve stocked according to plan rates at district pharmacies, and to enter the project's own USAID-funded orders early, to ensure fulfillment of the supply plans.
- B2** Overall stocked according to plan rates across all levels and task orders declined slightly from 47 to 41 percent, with an increase in overstocks (16 to 23 percent), and a slight decrease in stockouts (12 to 10 percent). Only one product--emergency oral contraceptives--was stocked out at the central level. Within Task Order 1, first line adult ARVs performed well at the district level, at 79 percent stocked according to plan and no reported stockouts. First RTKs were stocked according to plan at the central level, but often understocked or stocked out at the districts. Task Order 2 performance was mixed across both levels, although stockouts were fairly limited, at only 6 percent at the district level. Stock levels for mRDTs improved with an incoming shipment received in February. Task Order 3 (for which data is only available at the central level), had several overstocked items, including copper-bearing IUDs, male and female condoms, and progestin-only pills. Combined orals and injectables were well-stocked, and 2-rod implants were understocked.
- C7** No product losses to report this quarter.

Supply plans, innovations, and strategic activities

Total Innovations implemented this quarter

New approaches

1

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
Crosscutting	New approaches	<p>Integrating supply management best practices into pre-service training for future health workers graduating from the National Institute of Public Health (INSP) pharmacy and laboratory department:</p> <p>The management of pharmaceuticals and other health commodities through health systems strengthening is a key process to improve the availability of pharmaceutical products. To better prepare graduates entering the health workforce, GHSC-PSM supported INSP to conduct a four-day pre-service training workshop on supply chain management best practices. A total of 38 students, 19 pharmacy students and 19 laboratory students were trained on the best practices of pharmaceutical management and lab commodities management. Many lessons have emerged from this training. Five broad themes capture the most important insights: (1) pharmaceutical management framework includes four steps: selection, procurement, storage and distribution/use. All of those steps are linked by the management support; (2) calculation of the average monthly consumption (AMC), which describes the rate of consumption; (3) avoiding product expiries based on using first expiry-first out; (4) calculation of the right quantity to be ordered; and (5) logistic management information tools. In collaboration with USAID/GHSC-PSM, the director of the training department at INSP delivered certificates of completion to the students.</p> <p>During the closing session, graduates from the pharmacy department demonstrated through a play performance how they benefited from the training. They used a theater scene to illustrate their new skills and lessons learned during the training: how to internally improve commodity management in the health district pharmacy, the quantification, selection, storage, procurement, and distribution of commodities, and the tools to use for the Logistic Management Information System. The participants showed improvement throughout the whole process, from product selection to service delivery, particularly highlighting how the new skills they learned in the training complemented the theoretical courses studied in school.</p>

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
ARVs	Yes
FP commodities	Yes
Lab (HIV diagnostics)	Yes
Malaria commodities	Yes
RTKs	Yes

Analysis

Burundi submitted all required supply plans this quarter.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	Total
Female	12	8	6	26
Male	10	7	5	22
Total	22	15	11	48

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	Total
SDP	22	15	11	48
Total	22	15	11	48

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	Total
Cross-TO	22	15	11	48
Total	22	15	11	48

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	Total
MIS	22	15	11	48
Total	22	15	11	48

Analysis

▲

In collaboration with the Department of Pharmacy, Medicines and Laboratories (DPML), GHSC-PSM organized supportive supervision visits in 12 health districts, training 48 pharmacy managers. The goal of the activity was to ensure that pharmacy managers could correctly complete standard pharmaceutical reporting tools to support informed decision-making at various levels of the health commodity supply chain. As a result of the supervision activity, some gaps were identified and concrete actions to improve reporting were proposed to the District Chief Medical Officers.

Molecular Instruments and HIV Tracer Products

Country

Burundi

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

GHSC-PSM no longer manages or supports maintenance for any molecular instruments in Burundi.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/600 mg
2nd line adult ARV	Abacavir/Lamivudine 600/300 mg
Pediatric ARV	Zidovudine/Lamivudine/Nevirapine 60/30/50 mg
First RTK	Determine
Second RTK	STAT-PAK Dipstick
Tie-breaker RTK	Not reported
Viral load reagent	Not reported
Viral load consumable	Not reported
EID reagent	Not reported
EID consumable	Not reported

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	2.2%	3,837
1st line adult ARV	1.1%	786
2nd line adult ARV	2.2%	136
Pediatric ARV	1.2%	322
First RTK	5.7%	867
Second RTK	1.6%	673
Male condoms (HIV)	0.8%	762
Female condoms (HIV)	0.3%	291
TO2-Malaria	1.5%	5,599
AS/AQ 100/270mgx3	2.1%	829
AS/AQ 100/270mgx6	4.2%	824
AS/AQ 25/67.5mg	0.7%	752
AS/AQ 50/135mg	1.1%	786
mRDT	0.7%	864
SP	0.7%	752
LLINs	0.9%	792
TO3-PRH	0.5%	5,268
Combined oral contraceptive with iron	0.6%	789
DMPA-Intramuscular injectable	0.3%	796
2-rod implant	0.1%	738
Emergency contraceptive, 2 tablets	1.0%	676
Progestin only pills	0.1%	681
Copper-bearing IUD	0.2%	535
Male condoms (FP)	0.8%	762
Female condoms (FP)	0.3%	291
Total	1.3%	13,651

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO3-PRH		
Combined oral methods	0.6%	789
Injectable contraceptives	0.3%	796
Implantable contraceptives	0.1%	738
Emergency oral contraceptives	1.0%	676
Progestin-only methods	0.1%	681

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	72%	861
TO2-Malaria	83%	861
TO3-PRH	83%	868

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	20%	36%	41%	2%	44
TO1-HIV/AIDS	18%	35%	47%	0%	17
TO2-Malaria	19%	38%	43%	0%	21
TO3-PRH	25%	50%	13%	13%	8
Subnational level 1	42%	22%	25%	10%	837
TO1-HIV/AIDS	45%	12%	24%	20%	264
TO2-Malaria	41%	27%	25%	6%	573
Total	41%	23%	26%	10%	881

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

Burundi

FY Quarter

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	12	10	22
TO2-Malaria	8	7	15
TO3-PRH	6	5	11
Total	26	22	48

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
ARVs	1	1
FP commodities	1	1
Lab (HIV diagnostics)	1	1
Malaria commodities	1	1
RTKs	1	1

C10. HIV molecular instrument functionality

GHSC-PSM-supported instruments

% of instruments that functional for the entire period

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country

Cambodia 



Training for supply chain partners

C2. Number of people trained by sex

Sex	TO2-Malaria	Total
Female	10	10
Male	29	29
Total	39	39

C2. Number of people trained by funding source and type

Type	TO2-Malaria	Total
TO-specific	39	39
Total	39	39

C2. Number of people trained by supply chain level

Supply Chain Level	TO2-Malaria	Total
Subnational level 1	39	39
Total	39	39

C2. Number of people trained by technical area

Supply Chain Function	TO2-Malaria	Total
Forecasting and Supply Planning	39	39
Total	39	39

Analysis

During Jan-Mar 2019, GHSC-PSM trained a total of 39 participants in Cambodia. This included a field assessment of the Ministry of Health's Drug Information Database (DID) system's calculation of AMC at Battambang and Siem Reap provinces. The purpose of the training was for a 6-member MOH team to have exposure to system operations and to define the errors of the system. A second training was an mSupply orientation for 33 participants, on how to deploy and operate mSupply at the national and subnational levels.

Complete Results and Denominators

Country

FY Quarter

Cambodia

2019-Q2

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
Total		

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
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See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
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B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Total					

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

C2. Number of people trained

Task Order	Female	Male	Total
TO2-Malaria	10	29	39
Total	10	29	39

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
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C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
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For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country

Cameroon



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	1,170	4.4%
1st line adult ARV	356	2.2%
2nd line adult ARV	15	0.0%
Pediatric ARV	19	21.1%
First RTK	431	7.9%
Second RTK	349	1.7%
Total	1,170	4.4%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
Total		

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	970	76%
Total	970	76%

Analysis

Cameroon conducted an end user verification survey this quarter, including malaria stockout rate. Analysis of this survey is on going; TO2 stock-out rates will be reported next quarter.

Reporting rates in the 12 PEPFAR-supported districts have remained consistent from previous periods, although the data obscure some important changes that are currently underway. The reporting rate is based on a combination of reporting to OSPSIDA, a web-based tool for HIV commodities, and Excel-based reporting. The total number of sites required to report has increased, as district officials in the Yaoundé and Douala clusters have extended authorizations to additional health facilities that were previously operating informally. However, many of these sites have not been added to OSPSIDA, which saw a drop in its reporting rate. The overall rate was sustained through Excel reporting.

Stock-out rates for adult ARVs and both first and second RTKs are within the country target of less than 10 percent, although first RTKs did see increased stock-outs due to low availability nationwide. The National AIDS Control Committee (NACC) is working with the central medical store (CENAME) to expedite delayed government-funded shipments, and discussions are ongoing regarding the necessity of placing emergency orders with donor support.

This quarter, the Ministry of Public Health instructed all health facilities to use only DHIS2 for reporting patient and logistics data for priority programs, including HIV and malaria. DHIS2 reporting rates are still quite low. GHSC-PSM is supporting some health districts that are lagging behind, especially in data entry for malaria commodities. The project is also supporting the MOH to disseminate updated reporting tools for malaria commodities to inform data transcription into DHIS2.

Warehouse stock status and product losses

Country

Cameroon

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	10	30%	50%	10%	10%
TO1-HIV/AIDS	10	30%	50%	10%	10%
Subnational level 1	168	14%	38%	13%	36%
TO1-HIV/AIDS	60	25%	50%	18%	7%
TO2-Malaria	108	7%	31%	9%	52%
Total	178	15%	39%	12%	34%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

- B2 Cameroon has also recently adopted a policy to limit use of AS/AQ as its primary ACT combination in the North and Far North regions, following the use of amodiaquine-based treatments during the seasonal malaria chemoprevention campaigns. These regions will begin using AL instead. As a new first-choice treatment in these areas, historical consumption is not representative of future needs. Stock status is therefore expected to rebalance as consumption increases in the coming months.
- B2 The stocked according to plan rate for HIV commodities across central and regional levels remains low, at only 17 percent. A number of activities are in progress to improve planning and inventory levels, including:
- > GHSC-PSM is working with NACC, CENAME, DPML and health facilities representatives to improve forecasting accuracy and to facilitate the implementation of standard treatment guidelines.
 - > Monthly stock monitoring at CENAME is being conducted for early decision-making.
 - > GHSC-PSM is supporting the country to collect quality data to guide adequate phase out of TLE600, to be replaced by TLD and TLE400.
 - > A technical document was developed to guide NACC to find lasting solutions to recurrent issues of insufficient/excessive stocks and delayed shipments.
 - > Given the low availability of the most used second-line adult ARV, the country has enough LPV/r 200/50 mg as an alternative for adults on second line treatment.
- B2 The stocked according to plan rate for malaria is also low, at 9 percent, although these commodities are more likely to be overstocked (52 percent) than at low stock levels. Distributions in the two PMI-supported regions have been minimal due to the dry season, so many items appear to be overstocked. However, stocks will be prepositioned in all health facilities in anticipation of the rainy season, which will return stock to planned levels.
- C7 No product losses to report this quarter.

Supply plans, innovations, and strategic activities

Total Innovations implemented this quarter

New approaches **1**

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
TO2-Malaria	New approaches	GHSC-PSM introduced TransIT, a transportation management system, to plan and track last last-mile deliveries of LLINs in two PMI-supported regions. TransIT is a cloud-based solution including an Android app for delivery drivers, called ePOD (electronic proof of delivery). It enables access to transportation information anytime and anywhere. After health facility needs and distribution plans are validated by the malaria RTG, the plans are compiled in an Excel worksheet and uploaded to the TransIT system. Shipments are then assigned to supervisors and drivers, who receive notifications for pick ups on their phones. The drivers then collect the commodities from the distribution center and take them out for delivery. They take pictures of the PODs using the ePOD app, which are then shared to the cloud for online access and verification. Supervisors can download the PODs and map delivery locations using GPS coordinates. Based on the lessons learned during this pilot phase, the tool is being finalized to be used during LLINs distribution for an upcoming mass campaign in July-August.

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
ARVs	Yes
Lab (HIV diagnostics)	Yes
RTKs	Yes

Analysis

Cameroon submitted supply plans for all three required product groups this quarter: ARVs, lab, and RTKs.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	TO2-Malaria	Total
Female	4	21	25
Male	7	33	40
Total	11	54	65

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	TO2-Malaria	Total
Subnational level 2	11	54	65
Total	11	54	65

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	TO2-Malaria	Total
Cross-TO	11	54	65
Total	11	54	65

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	TO2-Malaria	Total
MIS	11	54	65
Total	11	54	65

Analysis

The Ministry of Health is refocusing on DHIS2 as the sole tool for capturing and analyzing data for priority health programs. This quarter, GHSC-PSM trained district teams on DHIS2 data entry and data use in Littoral region. Further training in North, Far North, and Centre regions is planned for FY2019 Q3.

Molecular Instruments and HIV Tracer Products

Country

Cameroon

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

GHSC-PSM does not manage or support maintenance for any molecular instruments in Cameroon.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/600 mg
2nd line adult ARV	Abacavir/Lamivudine 600/300 mg
Pediatric ARV	Zidovudine/Lamivudine/Nevirapine 60/30/50 mg
First RTK	Determine
Second RTK	OraQuick, Shanghi
Tie-breaker RTK	Not reported
Viral load reagent	Not reported
Viral load consumable	Not reported
EID reagent	Not reported
EID consumable	Not reported

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	4.4%	1,170
1st line adult ARV	2.2%	356
2nd line adult ARV	0.0%	15
Pediatric ARV	21.1%	19
First RTK	7.9%	431
Second RTK	1.7%	349
Total	4.4%	1,170

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
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See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	76%	970

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	10%	10%	50%	30%	10
TO1-HIV/AIDS	10%	10%	50%	30%	10
Subnational level 1	13%	36%	38%	14%	168
TO1-HIV/AIDS	18%	7%	50%	25%	60
TO2-Malaria	9%	52%	31%	7%	108
Total	12%	34%	39%	15%	178

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

Cameroon

FY Quarter

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	4	7	11
TO2-Malaria	21	33	54
Total	25	40	65

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
ARVs	1	1
Lab (HIV diagnostics)	1	1
RTKs	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
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For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country

Ethiopia



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	4,568	7.9%
1st line adult ARV	1,110	2.9%
2nd line adult ARV	201	12.9%
Pediatric ARV	949	3.2%
First RTK	292	12.7%
Second RTK	183	24.0%
Tie-breaker RTK	130	33.8%
Viral load reagent	19	5.3%
Viral load consumable	30	16.7%
EID reagent	19	31.6%
EID consumable	250	5.2%
Male condoms (HIV)	703	4.8%
RUTF	682	13.0%
Total	4,568	7.9%

Total Analysis

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	2,306	11.7%
AL 6x1	360	18.1%
AL 6x2	486	9.7%
AL 6x3	352	12.5%
AL 6x4	742	7.5%
mRDT	366	15.8%
Total	2,306	11.7%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	6,796	5.5%
Combined oral contraceptive with iron	965	5.9%
DMPA-Intramuscular injectable	1,024	2.1%
1-rod implant	879	11.0%
2-rod implant	711	6.0%
Emergency contraceptive, 2 tablets	884	6.4%
Progestin only pills	795	6.2%
Copper-bearing IUD	835	2.3%
Male condoms (FP)	703	4.8%
Total	6,796	5.5%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	1,228	94%
TO2-Malaria	1,044	84%
TO3-PRH	1,149	95%
TO4-MCH	1,164	81%
Total	4,585	89%

Ethiopia's overall LMIS reporting rate reached its highest point for the project to date at 96%. The TO4 reporting rate, while the lowest, increased from 77 to 81%. At the regional level, the lowest region was still at 86% across the health elements, and more than half of regions had a reporting rate above 96%. This success can be attributed in part to collaboration between GHSC-PSM and the central and regional government in providing close follow-up and reporting reminders, and strengthening of routine data quality analysis that enabled regions to target poorer performing facilities for support. GHSC-PSM also successfully advocated for use of data analysis to inform branch technical working group and health zone management department discussions.

Ethiopia's overall stockout rate increased slightly from 6.6 to 7.5%. The HIV/AIDS stockout rate (7.9%), was largely driven by stockouts of second and tie-breaker RTKs (24 and 34% of SDPs stocked out, respectively), as well as EID reagents (32%), while stockouts of ARVs remained relatively stable at 3.9% overall (up from 3% last quarter but still within the 5% target). EID stockouts were due to a government procurement delay, which GHSC-PSM is helping to alleviate through a recent order. With the new RTK algorithm focused on certain woredas based on testing targets and positivity/yield rates, most woredas have positioned Abon and SD Bioline RTKs at select high-yield public facilities which now serve as referral sites for the nearby private facilities for patients who initially test positive.

Stockouts of family planning products remained low at 5.5%. Relatively higher stockouts of 1-rod implants (11%) have continued, stemming from the fact that only a single supplier (Merck Sharp) is registered in Ethiopia. However, UNFPA and government orders in the pipeline should alleviate this shortage soon.

Stockouts of malaria products increased slightly from 10.2 to 11.7%. There is a culture of relying heavily on AL 6X4 regardless of patient age, which has led to low ordering and stockouts of the remaining presentations. Inability to treat remained fairly low though, at 4.5%. The sharp increase in stockouts of RDTs from 9 to 16% was tied to distribution errors between the regional hubs and SDPs. According to the February 2019 EUV survey, the main reasons for stockouts were: a failure of the central medical store to refill orders, lack of availability of products at warehouses, and SDPs ordering the wrong quantities.

Warehouse stock status and product losses

Country

Ethiopia

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	25		50%	8%	42%
TO1-HIV/AIDS	12		33%		67%
TO2-Malaria	5		60%	40%	
TO3-PRH	8		63%		38%
Subnational level 1	378	14%	30%	15%	41%
TO1-HIV/AIDS	144	5%	30%	17%	48%
TO2-Malaria	90	44%	26%	12%	18%
TO3-PRH	144	3%	31%	14%	53%
Total	403	13%	31%	15%	41%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
TO1	Global	Transit	Damage	Condoms	\$425	\$4,369,706	0.01%
TO1	Global	Transit	Damage	Essential medicines	\$9	\$661,275	0.00%

Indicator Analysis

B2

Stocking of HIV/AIDS products has improved notably in Ethiopia, with greatly reduced stock-outs (from 17 percent to 4 percent) and increased observations of stocking according to plan (from 11 percent to 16 percent). This was driven by improved stocking of RTKs resulting from the smooth nationwide transition to the new HIV testing algorithm. For malaria products, while Alu 6x4 was in good supply (33 stocked according to plan and no observations of stock-outs), the other presentations of Alu showed high stock-outs, particularly at the regional (hub) level, even though the central level was well stocked. Stocking according to plan decreased slightly for family planning products. The project is providing support to the EPSA to strengthen its cyclical and annual inventory management system.

Supply plans, innovations, and strategic activities

Country

Ethiopia 

Total Innovations implemented this quarter

Type of innovation # of innovations

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
		

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
Condoms	Yes
FP commodities	Yes
Lab (HIV diagnostics)	Yes
RTKs	Yes

Analysis

All required quarterly supply plans were developed and submitted to the home office forecasting and supply planning team this quarter.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Female	6	12	8	4	30
Male	28	51	32	6	117
Total	34	63	40	10	147

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Cross-TO	34	63	40	10	147
Total	34	63	40	10	147

Analysis

Training provided to 147 professionals in the following thematic areas:

1. Governance and financing: Auditable Pharmaceutical Transactions and Services (APTS) scale-up training provided to 24 health professionals; Pre-service training provided to 11 post-graduate students of Wollo university
2. Forecasting and supply planning: training provided to 13 central EPSA staff
3. Strategy and planning: Leadership training provided to 41 directors and managers from central EPSA; Quality management system training provided to 16 central EPSA staff
4. M&E: training was provided to 42 EPSA staff

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Central	17	30	18	5	70
Subnational level 1	10	18	12	2	42
SDP	7	15	10	3	35
Total	34	63	40	10	147

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Forecasting and Supply Planning	3	5	3	2	13
Governance and Financing	7	15	10	3	35
Monitoring and Evaluation	10	18	12	2	42
Strategy and Planning	14	25	15	3	57
Total	34	63	40	10	147

Molecular Instruments and HIV Tracer Products

Country

Ethiopia ▼

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

70%

Analysis

Out of the total 20 molecular instruments, 14 were functional during this quarter. The performance decreased from 75 percent in the previous quarter to 70 percent this quarter. This was due to machine failures at EPHI, ALERT hospital, Jimma hospitals, Debremarkos hospital and Tigray regional lab. Across sites, service was interrupted for a total of 81 working days, down from 125 working days last quarter.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Efavirenz/Lamivudine/Tenofovir DF 600/300/300 mg
2nd line adult ARV	Atazanavir/Ritonavir 300/100 mg
Pediatric ARV	Lamivudine/Zidovudine/Nevirapine 30/60/50 mg
First RTK	Transitioning from Colloidal Gold to STAT-PAK.
Second RTK	Transitioning from Uni-Gold to Abon HIV 1/2/O kit
Tie-breaker RTK	Transitioning from Vikia to SD Bioline HIV 1/2 3.0 kit
Viral load reagent	Molecular, m2000 Real Time PCR, HIV-1 Amplification Reagent Kit, 96 tests, Quantitative, (4 Packs x 24) Assays Molecular, COBAS, TaqMan, CAP/CTM HIV v2.0, Quantitative, 48 Tests Plasma preparation tube of 100 (for plasma based test)
Viral load consumable	Dry Blood Spot (DBS) kit sample collection bundle of 20 tests
EID reagent	Molecular, m2000 RealTime PCR, HIV-1 Qualitative Amplification Reagent Kit, 96 Tests Molecular, COBAS TaqMan, AmpliPrep, HIV-1, Qualitative, 48 Tests,
EID consumable	

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	7.9%	4,568
1st line adult ARV	2.9%	1,110
2nd line adult ARV	12.9%	201
Pediatric ARV	3.2%	949
First RTK	12.7%	292
Second RTK	24.0%	183
Tie-breaker RTK	33.8%	130
Viral load reagent	5.3%	19
Viral load consumable	16.7%	30
EID reagent	31.6%	19
EID consumable	5.2%	250
Male condoms (HIV)	4.8%	703
RUTF	13.0%	682
TO2-Malaria	11.7%	2,306
AL 6x1	18.1%	360
AL 6x2	9.7%	486
AL 6x3	12.5%	352
AL 6x4	7.5%	742
mRDT	15.8%	366
TO3-PRH	5.5%	6,796
Combined oral contraceptive with iron	5.9%	965
DMPA-Intramuscular injectable	2.1%	1,024
1-rod implant	11.0%	879
2-rod implant	6.0%	711
Emergency contraceptive, 2 tablets	6.4%	884
Progestin only pills	6.2%	795
Copper-bearing IUD	2.3%	835
Male condoms (FP)	4.8%	703
Total	7.5%	12,967

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	4.5%	822
TO3-PRH		
Combined oral methods	5.9%	965
Injectable contraceptives	2.1%	1,024
Implantable contraceptives	5.7%	991
Emergency oral contraceptives	6.4%	884
Progestin-only methods	6.2%	795

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	94%	1,228
TO2-Malaria	84%	1,044
TO3-PRH	95%	1,149
TO4-MCH	81%	1,164

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	8%	42%	50%		24
TO1-HIV/AIDS		67%	33%		12
TO2-Malaria	40%		60%		5
TO3-PRH		38%	63%		8
Subnational level 1	15%	41%	30%	14%	360
TO1-HIV/AIDS	17%	48%	30%	5%	144
TO2-Malaria	12%	18%	26%	44%	90
TO3-PRH	14%	53%	31%	3%	144
Total	15%	41%	31%	13%	384

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

Ethiopia

FY Quarter

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	6	28	34
TO2-Malaria	12	51	63
TO3-PRH	8	32	40
TO4-MCH	4	6	10
Total	30	117	147

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
Condoms	1	1
FP commodities	1	1
Lab (HIV diagnostics)	1	1
RTKs	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
20	70%

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	4,728	18.1%
1st line adult ARV	401	8.5%
2nd line adult ARV	401	35.9%
Pediatric ARV	401	66.3%
First RTK	347	13.0%
Second RTK	347	12.1%
Male condoms (HIV)	2,087	7.5%
Female condoms (HIV)	744	22.4%
Total	4,728	18.1%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	685	41.0%
AL 6x1	61	44.3%
AL 6x2	53	60.4%
AL 6x3	19	84.2%
AL 6x4	91	27.5%
AS/AQ 100/270mgx3	43	69.8%
AS/AQ 100/270mgx6	52	78.8%
AS/AQ 25/67.5mg	53	50.9%
AS/AQ 50/135mg	67	46.3%
mRDT	82	15.9%
SP	74	13.5%
LLINs	90	32.2%
Total	685	41.0%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	20,864	5.2%
Combined oral contraceptive with iron	2,479	5.5%
NET-En Injectable	2,898	3.2%
DMPA-Intramuscular injectable	4,149	1.8%
1-rod implant	2,987	3.0%
2-rod implant	3,279	2.3%
Progestin only pills	1,659	9.4%
Copper-bearing IUD	582	23.4%
Male condoms (FP)	2,087	7.5%
Female condoms (FP)	744	22.4%
Total	20,864	5.2%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
Total		

Analysis

GHSC-PSM Ghana was able to report on TO2 tracer products for the first time since FY18Q3 using the EUV. The overall TO2 stock out rate was 41 percent. The high overall stock out rate can generally be attributed to the high individual stock out rates of ACTs since there is a preference at facilities to only stock Alu 6x4 due to its versatility and price advantages.

Warehouse stock status and product losses

Country

Ghana

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	81	29%	15%	24%	32%
TO1-HIV/AIDS	21	10%	24%	29%	38%
TO2-Malaria	30	67%	17%	10%	7%
TO3-PRH	30	0%	3%	30%	67%
Subnational level 1	810	16%	32%	22%	30%
TO1-HIV/AIDS	210	4%	38%	27%	31%
TO2-Malaria	300	31%	31%	10%	28%
TO3-PRH	300	8%	26%	30%	36%
Total	891	17%	30%	22%	30%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
TO2	Central	Storage	Expiry		\$33,956	\$95,754	35.46%

Indicator Analysis

- B2** While the overall TO2 stock out rate decreased to 35 percent (from 45 percent last quarter), warehouses did have issues in stocking certain commodities this quarter. Several ACTs either remained stocked out this quarter or saw an increase of 20percent or more in stock out rates. This is due to the NMCP deciding to delay or cancel planned shipments to minimize anticipated expiries, which was occurring due to low demand at facilities. This has led to low stock levels at the central and regional levels. Any stock that is delivered is distributed to health facilities to minimize the impact of low ACT availability. Several TO3 tracer products, including female condoms, copper IUDs, emergency oral contraceptives, and male condoms, remained overstocked this quarter due to low demand.
- C7** The nearly \$34,000 in expiry of quinine 300 mg tablets at the central warehouse was due to facilities not ordering the product. Quinine tablets are a slow moving product and practitioners prefer to use Artemisinin-based treatments.

Supply plans, innovations, and strategic activities

Country

Ghana 

Total Innovations implemented this quarter

Operational research studies

1

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
Crosscutting	Operational research studies	GHSC-PSM Ghana has partnered with the University of Ghana to build supply chain management capacity in-country by developing region-specific solutions for addressing supply chain gaps. An MOU was signed in December 2018 to move the process forward. The operational research has been completed and the report shared.

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
ARVs	Yes
Condoms	Yes
FP commodities	Yes
Malaria commodities	Yes
RTKs	Yes

Analysis

GHSC-PSM Ghana is no longer required to submit supply plans for TO4. As such, GHSC-PSM Ghana submitted all five required supply plans for the quarter.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Female	6	5	4	0	15
Male	19	7	7	1	34
Total	25	12	11	1	49

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Cross-TO	12	12	11	1	36
TO-specific	13				13
Total	25	12	11	1	49

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Central	25	12	11	1	49
Total	25	12	11	1	49

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Forecasting and Supply Planning	13				13
MIS	12	12	11	1	36
Total	25	12	11	1	49

Analysis

This quarter, GHSC-PSM Ghana conducted two trainings, both of which were held at the central level.

Molecular Instruments and HIV Tracer Products

Country

Ghana 

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

GHSC-PSM does not manage or support maintenance for any molecular instruments in Ghana.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/600 mg
2nd line adult ARV	Liponavir/Retonavir 200mg/50mg
Pediatric ARV	Zidovudine 60 mg + Lamivudine 30 mg Tablet + Nevrapine 10mg/ml or Nevirapine 50mg dispersible tablet
First RTK	First Response
Second RTK	OraQuick
Tie-breaker RTK	Genscreen (ELISA test)
Viral load reagent	CAP/CTM HIV v2.0, Quantitative, 48 Tests
Viral load consumable	Not reported
EID reagent	CAP CTM HIV Qual 48 tests
EID consumable	Not reported

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	18.1%	4,728
1st line adult ARV	8.5%	401
2nd line adult ARV	35.9%	401
Pediatric ARV	66.3%	401
First RTK	13.0%	347
Second RTK	12.1%	347
Male condoms (HIV)	7.5%	2,087
Female condoms (HIV)	22.4%	744
TO2-Malaria	41.0%	685
AL 6x1	44.3%	61
AL 6x2	60.4%	53
AL 6x3	84.2%	19
AL 6x4	27.5%	91
AS/AQ 100/270mgx3	69.8%	43
AS/AQ 100/270mgx6	78.8%	52
AS/AQ 25/67.5mg	50.9%	53
AS/AQ 50/135mg	46.3%	67
mRDT	15.9%	82
SP	13.5%	74
LLINs	32.2%	90
TO3-PRH	5.2%	20,864
Combined oral contraceptive with iron	5.5%	2,479
NET-En Injectable	3.2%	2,898
DMPA-Intramuscular injectable	1.8%	4,149
1-rod implant	3.0%	2,987
2-rod implant	2.3%	3,279
Progestin only pills	9.4%	1,659
Copper-bearing IUD	23.4%	582
Male condoms (FP)	7.5%	2,087
Female condoms (FP)	22.4%	744
Total	8.1%	23,446

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	6.4%	94
TO3-PRH		
Combined oral methods	5.5%	2,479
Injectable contraceptives	1.5%	4,322
Implantable contraceptives	1.2%	3,688
Progestin-only methods	9.4%	1,659

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	24%	32%	15%	29%	75
TO1-HIV/AIDS	29%	38%	24%	10%	21
TO2-Malaria	10%	7%	17%	67%	30
TO3-PRH	30%	67%	3%	0%	30
Subnational level 1	22%	30%	32%	16%	750
TO1-HIV/AIDS	27%	31%	38%	4%	210
TO2-Malaria	10%	28%	31%	31%	300
TO3-PRH	30%	36%	26%	8%	300
Total	22%	30%	30%	17%	825

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

Ghana

FY Quarter

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	6	19	25
TO2-Malaria	5	7	12
TO3-PRH	4	7	11
TO4-MCH	0	1	1
Total	15	34	49

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
ARVs	1	1
Condoms	1	1
FP commodities	1	1
Malaria commodities	1	1
RTKs	1	1

C10. HIV molecular instrument functionality

GHSC-PSM-supported instruments

% of instruments that functional for the entire period

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

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Country M&E Indicator Performance

Country

Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	3,442	10.1%
AL 6x1	492	8.5%
AL 6x2	492	7.3%
AL 6x3	492	8.3%
AL 6x4	491	13.8%
mRDT	492	0.8%
SP	492	13.0%
LLINs	491	18.9%
Total	3,442	10.1%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	2,276	14.7%
Combined oral contraceptive with iron	366	21.0%
DMPA-Intramuscular injectable	411	9.2%
2-rod implant	396	14.6%
Progestin only pills	323	20.7%
Copper-bearing IUD	376	14.4%
Male condoms (FP)	404	9.9%
Total	2,276	14.7%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO2-Malaria	505	97%
TO3-PRH	454	93%
Total	959	95%

Analysis

Guinea's SDP reporting rates to LMIS continue to remain high, with task order level rates for TO2 and TO3 at 97 and 93 percent, respectively. Systematic and fairly on-time reporting of LMIS data is taking root in the mindset of health professionals in health facilities and districts. This is a result not only of routine follow-up by the regional pharmacists assisted by the GHSC-PSM regional technical advisors, but also a result of education and sensitization efforts deployed during quarterly regional and prefectural supply chain performance review meetings.

Guinea's overall stockout rate increased slightly from 11 to 12 percent of SDPs stocked out, stemming from a notable increase in malaria commodity stockouts (from 5 to 10 percent), and a decrease in the stockout rate for family planning commodities (from 18 to 15 percent). However, despite stockouts of individual AL presentations, the "inability to treat" rate remains low at 0.6 percent, indicating availability of at least one presentation in nearly all facilities, and most likely a preference among facilities of some presentations over others. Stockouts of malaria commodities at facilities may stem from an error the central medical store made in trying to distribute the limited stock across its three regional warehouses. GHSC-PSM is working together with the National Malaria Control Program and the Global Fund to help move forward several orders in the pipeline that were initially scheduled for the second half of the year, including orders of AL 6x1, 6x2, and 6x3 as well as RDTs.

Warehouse stock status and product losses

Country

Guinea

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	12		58%	17%	25%
TO2-Malaria	6		50%	17%	33%
TO3-PRH	6		67%	17%	17%
Subnational level 1	72		75%	13%	13%
TO2-Malaria	36		78%	11%	11%
TO3-PRH	36		72%	14%	14%
Total	84		73%	13%	14%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

B2

The overall percentage of observations stocked according to plan fell from 18 to 13 percent, while understocking increased from 50 to 73 percent, though accompanied by a drop in stockouts from 17 to 0 percent. This trend was particularly noticeable for family planning commodities, where 71 percent of all observations were understocked, with similar results at both the central and regional levels. Among malaria commodities, understocking was similarly prevalent, particularly at the regional level (78% understocked). All presentations of AL were understocked at both the central and regional level, except for AL 6X4, which was overstocked at the central level only. These trends may be partly explained by the resupply calculation errors made by the CMS (noted previously under Indicator B1) that affected AL and RDTs. Furthermore, the FP campaign held in the previous quarter, which borrowed commodities normally earmarked for routine facility distribution, may not have properly accounted for the campaign's impact on routine stocks when orders were being placed. GHSC-PSM will collaborate with UNFPA to update the 2019 quantification and procurement plans for FP commodities, and will support Guinea's central pharmacy (PCG) to more systematically assess stock levels for both health areas at the regional and central levels.

Complete Results and Denominators

Country

FY Quarter

Guinea

2019-Q2

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO2-Malaria	10.1%	3,442
AL 6x1	8.5%	492
AL 6x2	7.3%	492
AL 6x3	8.3%	492
AL 6x4	13.8%	491
mRDT	0.8%	492
SP	13.0%	492
LLINs	18.9%	491
TO3-PRH	14.7%	2,276
Combined oral contraceptive with iron	21.0%	366
DMPA-Intramuscular injectable	9.2%	411
2-rod implant	14.6%	396
Progestin only pills	20.7%	323
Copper-bearing IUD	14.4%	376
Male condoms (FP)	9.9%	404
Total	11.9%	5,718

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	0.6%	492
TO3-PRH		
Combined oral methods	21.0%	366
Injectable contraceptives	9.2%	411
Implantable contraceptives	14.6%	396
Progestin-only methods	20.7%	323

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO2-Malaria	97%	505
TO3-PRH	93%	454

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	17%	25%	58%		12
TO2-Malaria	17%	33%	50%		6
TO3-PRH	17%	17%	67%		6
Subnational level 1	13%	13%	75%		72
TO2-Malaria	11%	11%	78%		36
TO3-PRH	14%	14%	72%		36
Total	13%	14%	73%		84

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

C2. Number of people trained

Task Order	Total
Total	

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

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Country M&E Indicator Performance

Country



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	914	0.4%
1st line adult ARV	139	0.7%
2nd line adult ARV	139	1.4%
Pediatric ARV	139	0.0%
First RTK	139	0.0%
Second RTK	139	0.7%
Male condoms (HIV)	219	0.0%
Total	914	0.4%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	1,314	0.2%
Combined oral contraceptive with iron	219	0.5%
DMPA-Intramuscular injectable	219	0.0%
2-rod implant	219	0.9%
Copper-bearing IUD	219	0.0%
Calendar-based awareness methods	219	0.0%
Male condoms (FP)	219	0.0%
Total	1,314	0.2%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	151	100%
TO3-PRH	219	100%
Total	370	100%

Analysis

Haiti's performance remained strong, with the overall stock-out rate at only 0.3 percent. The project continues its intensive follow-up of sites and will share information on any upcoming regimen changes before each distribution period to help prevent stock-outs. The project has done well at anticipating needs through analysis of monthly reports. At the same time, the project continues to build the capacity of regional monitors to sustainably improve stock management.

One hundred percent of SDPs reported this quarter for both family planning and HIV/AIDS commodities, representing 151 and 219 sites, respectively. Furthermore, 92 percent and 86 percent of HIV/AIDS and family planning reports, respectively, were submitted on time or within one week of the reporting deadline.

Warehouse stock status and product losses

Country

Haiti

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	36		12%	52%	36%
TO1-HIV/AIDS	18		22%	50%	28%
TO3-PRH	18			61%	39%
Total	36		12%	52%	36%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
TO1	Central	Storage	Expiry	Adult ARVs, RTKs, laboratory, opportunistic infection	\$331,752	\$13,115,921	2.53%
TO1	Global	Transit	Damage	Laboratory	\$357	\$2,450,850	0.01%
TO3	Central	Storage	Expiry	Oral contraceptives	\$4,061	\$887,358	0.46%

Indicator Analysis

- B2** Stocking according to plan improved greatly this quarter, increasing from 23 to 52 percent, with no products stocked out. Only 12 percent of product observations were understocked, which included all three observations of first-line ARVs and one observation of second RTKs.
- C7** Product expiries for HIV/AIDS commodities at the central warehouse represented 2.5 percent of the average inventory balance for these commodities, while for family planning commodities it represented 0.5 percent of the average inventory balance. The majority of expiries were of RTKs, due in part to having received two orders in late 2017 with 6,000 kits that had the same expiration date and subsequent overstocking. The project now has access to the GHSC-RTK tracker that provides information on order status so that orders can be modified or canceled if needed.

Supply plans, innovations, and strategic activities

Country

Haiti 

Total Innovations implemented this quarter

Type of innovation # of innovations

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
<hr/>		

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
ARVs	Yes
Condoms	Yes
FP commodities	Yes
Lab (HIV diagnostics)	Yes
MCH commodities	No
RTKs	Yes

Analysis

Supply plans were developed and submitted to the home office for lab, ARVs, RTKs, condoms, and family planning products. However, the project has yet to develop a supply chain for maternal and child health products, as consumption data are not yet collected for all sites across departments. A minimum of 80 percent of consumption data is required to develop a supply plan. A partner project is responsible for following up with facilities concerning the distribution of and data collection for these products, and has shared only a small number of site reports to date with GHSC-PSM. The project and the MOH will discuss with the USAID Mission organizing a partners meeting on this issue.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	Total
Female	6	6
Male	4	4
Total	10	10

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	Total
TO-specific	10	10
Total	10	10

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	Total
SDP	10	10
Total	10	10

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	Total
MIS	10	10
Total	10	10

Analysis

Two training sessions were conducted for 10 participants to build their capacity in the use of viral load testing and EID (m2000RT) machines. Trainees came from the two partner institutions working in this area (IMIS and LNSP). The trainings were carried out within these institutions.

Molecular Instruments and HIV Tracer Products

Country

Haiti

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

100%

Analysis

For this reporting period, 100 percent (8 out of 8) of molecular instruments were functional at all times. In addition, two new machines have been allocated to IMS to allow for wider coverage in testing.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	TDF/3TC/EFV 300/300/600 mg
2nd line adult ARV	ATV/r 300/100 mg
Pediatric ARV	AZT/3TC/NVP 60/30/50 mg
First RTK	Determine
Second RTK	Uni-Gold
Tie-breaker RTK	Not reported
Viral load reagent	Not reported
Viral load consumable	Not reported
EID reagent	Not reported
EID consumable	Not reported

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	0.4%	914
1st line adult ARV	0.7%	139
2nd line adult ARV	1.4%	139
Pediatric ARV	0.0%	139
First RTK	0.0%	139
Second RTK	0.7%	139
Male condoms (HIV)	0.0%	219
TO3-PRH	0.2%	1,314
Combined oral contraceptive with iron	0.5%	219
DMPA-Intramuscular injectable	0.0%	219
2-rod implant	0.9%	219
Copper-bearing IUD	0.0%	219
Calendar-based awareness methods	0.0%	219
Male condoms (FP)	0.0%	219
Total	0.3%	2,009

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO3-PRH		
Combined oral methods	0.5%	219
Injectable contraceptives	0.0%	219
Implantable contraceptives	0.9%	219

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	100%	151
TO3-PRH	100%	219

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	52%	36%	12%		33
TO1-HIV/AIDS	50%	28%	22%		18
TO3-PRH	61%	39%			18
Total	52%	36%	12%		33

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

FY Quarter

Haiti

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	6	4	10
Total	6	4	10

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
ARVs	1	1
Condoms	1	1
FP commodities	1	1
Lab (HIV diagnostics)	1	1
MCH commodities	1	0
RTKs	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
8	100%

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

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Country M&E Indicator Performance

Country

Indonesia



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	59	0.0%
1st line adult ARV	12	0.0%
2nd line adult ARV	7	0.0%
Pediatric ARV	4	0.0%
First RTK	12	0.0%
Second RTK	12	0.0%
Tie-breaker RTK	12	0.0%
Total	59	0.0%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
Total		

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	12	100%
Total	12	100%

Analysis

For the fifth quarter in a row, the LMIS reporting rate was 100 percent for the 12 JSD sites.

No products were stocked out this quarter, which is a slight improvement from last quarter when first and tie-breaker RTKs were each stocked out at a facility.

Warehouse stock status and product losses

Country

Indonesia

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	6	0%	33%	67%	0%
TO1-HIV/AIDS	6	0%	33%	67%	0%
Subnational level 1	6	0%	33%	33%	33%
TO1-HIV/AIDS	6	0%	33%	33%	33%
Subnational level 2	30	0%	7%	77%	17%
TO1-HIV/AIDS	30	0%	7%	77%	17%
Total	42	0%	14%	69%	17%

Indicator Analysis

B2 The overall stocked according to plan rate increased to 69 percent this quarter (from 33 percent last quarter). This is due to improved supply planning, distributions that happened this quarter, and the ARV decentralization process, which is currently taking place and being established.

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Supply plans, innovations, and strategic activities

Total Innovations implemented this quarter

New approaches New technologies

1

2

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
TO1-HIV/AIDS	New technologies	A revised laboratory register format for non-ARV commodity recording has been introduced and tested in health facilities. The tool was introduced in a workshop facilitated by Sub-directorate HIV and Global Fund and had 48 participants (TB and HIV program officers from the DHO and laboratory officers from hospitals). The laboratory register form will be used as a main data form for developing SIHA (LMIS) for non-ARV commodities. The recording and reporting for ARV commodities has been developed and implemented through LBPHA and SIHA, while recording and reporting tools for non-ARV commodities are still being developed. GHSC-PSM, together with Sub-directorate HIV and PIMS (NAP), has developed a laboratory registry to record the use of non-ARV commodities such as RDT HIV and syphilis, CD4 and Viral Load HIV. Some changes are being made to this new laboratory register format to connect it to SIHA and the logistic consumption report in the future.
TO1-HIV/AIDS	New approaches	GHSC-PSM Indonesia has improved the availability of VL data and MDR TB through implementing DataToCare. The project is supporting the National TB Program to pilot the use of laboratory data connectivity software (DataToCare) in 20 selected health facilities for GeneXpert and Abbott platforms for HIV. The software enables the recording of patient testing data, which is synchronized with the national TB information system (e-TB Manager), providing a real-time dashboard data display. The software was installed at 10 sites in DKI Jakarta. The sites are as follow: RS Sulianti Suroso (North Jakarta, RSUD Koja), Puskesmas Kecamatan Cengkareng (West Jakarta, Puskesmas Kecamatan Tambora), South Jakarta (RSUD Pasar Minggu, RSUD Tebet, RS Fatmawati), East Jakarta (RSUD Pasar Rebo), Central Jakarta (National referral lab Mikro UI and PKC Senen). The piloting of DataToCare Installation (using Abbott and GeneXpert) enables VL data results to be available in real time.
TO1-HIV/AIDS	New technologies	The ARV and non-ARV forecasting tools have been revised and used in national forecasting, and the results will be used as a basis for a Drug Purchase Plan (Rencana Kebutuhan Obat/RKO). ARV forecasting tools were revised at the annual HIV Commodity Forecasting meeting to add more non-ARV commodities such as condoms, lubricants, needle syringes, and drugs for opportunistic infections. The tools were introduced at the Annual HIV Forecasting and TB Commodity Quantification 2020 National workshop, attended by people from 34 provinces and the participation of pharmacist and HIV staff, USAID and the Global Fund.

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group

Supply Plan Submission Status

Analysis

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	Total
Female	91	91
Male	49	49
Total	140	140

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	Total
TO-specific	140	140
Total	140	140

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	Total
Subnational level 1	135	135
SDP	5	5
Total	140	140

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	Total
Forecasting and Supply Planning	135	135
MIS	5	5
Total	140	140

Analysis

This quarter, GHSC-PSM Indonesia conducted two trainings: one on ARV and non-ARV forecasting for the provincial level, and one on installing Data to Care Connection using Abbott and GeneXpert.

Molecular Instruments and HIV Tracer Products

Country

Indonesia

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

GHSC-PSM does not manage or support maintenance for any molecular instruments in Indonesia.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/600 mg
2nd line adult ARV	Lopinavir/ritonavir (LPV/r) 200/50mg
Pediatric ARV	Zidovudine (ZDV) 100mg
First RTK	SD Bioline, Fokus
Second RTK	Fokus and Intec
Tie-breaker RTK	Vikia and Oncoprobe
Viral load reagent	Abbott
Viral load consumable	Abbott
EID reagent	Abbott
EID consumable	Abbott

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	0.0%	59
1st line adult ARV	0.0%	12
2nd line adult ARV	0.0%	7
Pediatric ARV	0.0%	4
First RTK	0.0%	12
Second RTK	0.0%	12
Tie-breaker RTK	0.0%	12
Total	0.0%	59

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
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See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	100%	12

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	67%	0%	33%	0%	6
TO1-HIV/AIDS	67%	0%	33%	0%	6
Subnational level 1	33%	33%	33%	0%	6
TO1-HIV/AIDS	33%	33%	33%	0%	6
Subnational level 2	77%	17%	7%	0%	30
TO1-HIV/AIDS	77%	17%	7%	0%	30
Total	69%	17%	14%	0%	42

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

Indonesia

FY Quarter

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	91	49	140
Total	91	49	140

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
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C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
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For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

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Country M&E Indicator Performance

Country



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	7,032	18.6%
AL 6x1	1,172	10.2%
AL 6x2	1,172	35.2%
AL 6x3	1,172	29.6%
AL 6x4	1,172	17.1%
mRDT	1,172	10.3%
SP	1,172	9.0%
Total	7,032	18.6%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	1,792	9.2%
Combined oral contraceptive with iron	224	4.5%
DMPA-Intramuscular injectable	224	7.6%
1-rod implant	224	10.3%
2-rod implant	224	5.4%
Emergency contraceptive, 2 tablets	224	16.5%
Progestin only pills	224	15.6%
Copper-bearing IUD	224	5.4%
Male condoms (FP)	224	8.5%
Total	1,792	9.2%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO2-Malaria	1,178	100%
TO3-PRH	249	98%
Total	1,427	100%

Analysis

Overall stock-outs of malaria commodities remained consistent with the previous quarter. While rates for individual presentations of AL ranged from 10 to 35 percent, the rate of sites unable to treat with AL was only 5 percent. This figure may include some private health facilities that do not receive antimalarials from the government and therefore reported "0" stock to DHIS2. These sites are typically supplied from alternate sources. The team is working to refine the DHIS2 dataset for this indicator to exclude health facilities not supplied by the government.

Reporting rates on malaria commodities remained strong, at 100 percent. Reporting on family planning was also strong in supported regions and showed improvement, increasing from 87 to 98 percent reporting. However, many of those reports were blank, yielding a "complete" reporting rate closer to 90 percent. The project performed on-the-job training in facilities that had data challenges; training will continue on a case-by-case basis during facility visits and data review meetings, in collaboration with MOH supervisors.

Stock-out rates increased for five of seven contraceptive products reported, with one-rod implants and emergency contraceptives the most impacted. Central-level stock-outs of implants, IUDs and emergency pills contributed to SDP stock-outs of these items. Injectables were resupplied to some facilities but did not alleviate all stockouts. Combined and progestin-only oral contraceptives were both in stock at the central level, and SDP stock-outs of these products were alleviated during the quarter. The project will advocate for filling of the commodity pipeline at the national level and continue to support analysis and use of data to inform interventions aimed at increasing commodity availability, e.g. ordering and redistribution.

Warehouse stock status and product losses

Country

Kenya

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	42	29%	26%	24%	21%
TO2-Malaria	18		28%	39%	33%
TO3-PRH	24	50%	25%	13%	13%
Total	42	29%	26%	24%	21%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

- B2** The overall stocked according to plan rate for malaria products improved, from 33 to 39 percent, with no stock-outs. The project continues to focus on improving commodity data quality in DHIS2 to inform correct re-supply quantities. Central-level stock-outs have increased for family planning commodities, due to full-quarter stock-outs of implants, emergency oral contraceptives and copper-bearing IUDs. Injectables are also understocked. The project is monitoring stock levels and sharing updates with stakeholders, while advocating for forecasting and procurement activities and expedited shipments to alleviate the stockouts.
- C7** GHSC-PSM does not have custody of any products in-country and therefore does not report on product losses.

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO3-PRH	TO4-MCH	Total
Female	58	9	67
Male	27	20	47
Total	85	29	114

C2. Number of people trained by funding source and type

Type	TO3-PRH	TO4-MCH	Total
TO-specific	85	29	114
Total	85	29	114

C2. Number of people trained by supply chain level

Supply Chain Level	TO3-PRH	TO4-MCH	Total
Subnational level 1	85	29	114
Total	85	29	114

C2. Number of people trained by technical area

Supply Chain Function	TO3-PRH	TO4-MCH	Total
Forecasting and Supply Planning		29	29
Warehousing and Inventory Management	85		85
Total	85	29	114

Analysis

Within the family planning program, Afya Ugavi trained 85 health care workers in inventory management, pharmacovigilance and quality improvement. Within the maternal and child health program, the project trained 29 participants on quantification. Training took place in two of three project-supported counties, with training for the final county planned for the coming quarter.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO2-Malaria	18.6%	7,032
AL 6x1	10.2%	1,172
AL 6x2	35.2%	1,172
AL 6x3	29.6%	1,172
AL 6x4	17.1%	1,172
mRDT	10.3%	1,172
SP	9.0%	1,172
TO3-PRH	9.2%	1,792
Combined oral contraceptive with iron	4.5%	224
DMPA-Intramuscular injectable	7.6%	224
1-rod implant	10.3%	224
2-rod implant	5.4%	224
Emergency contraceptive, 2 tablets	16.5%	224
Progestin only pills	15.6%	224
Copper-bearing IUD	5.4%	224
Male condoms (FP)	8.5%	224
Total	16.7%	8,824

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	5.2%	1,172
TO3-PRH		
Combined oral methods	4.5%	224
Injectable contraceptives	7.6%	224
Implantable contraceptives	1.3%	224
Emergency oral contraceptives	16.5%	224
Progestin-only methods	15.6%	224

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO2-Malaria	100%	1,178
TO3-PRH	98%	249

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	24%	21%	26%	29%	42
TO2-Malaria	39%	33%	28%		18
TO3-PRH	13%	13%	25%	50%	24
Total	24%	21%	26%	29%	42

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

FY Quarter

Kenya

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO3-PRH	58	27	85
TO4-MCH	9	20	29
Total	67	47	114

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
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C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
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For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

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Country M&E Indicator Performance

Country



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	1,464	18.9%
1st line adult ARV	200	0.0%
2nd line adult ARV	194	4.6%
Pediatric ARV	168	6.5%
First RTK	177	5.6%
Second RTK	177	14.7%
Tie-breaker RTK	159	32.1%
Viral load reagent	4	0.0%
EID reagent	1	0.0%
Male condoms (HIV)	114	4.4%
Female condoms (HIV)	101	7.9%
RUTF	169	92.9%
Total	1,464	18.9%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
Total		

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	201	100%
Total	201	100%

Analysis

The LMIS reporting rate continues to be 100 percent.

While the overall stock out-rate only increased marginally--from 17.8 percent last quarter to 18.9 percent this quarter--the stock-out rate for one product, RUTF, saw a noticeable increase from last quarter (from 63 percent to 93 percent). This is due to the stock-out at NDSO, which ultimately resulted in the stock-outs at SDPs. A shipment arrived to the NDSO recently, and it will be distributed. This large increase in RUTF's stock-out rate was offset by a decrease in the stock-out rate for first and second RTKs.

Warehouse stock status and product losses

Country

Lesotho

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	33	18%	21%	42%	18%
TO1-HIV/AIDS	33	18%	21%	42%	18%
Total	33	18%	21%	42%	18%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

B2

While the overall stocked according to plan rate increased from 27 percent last quarter to 42 percent this quarter, the overall stock-out rate also increased: it was 9 percent last quarter and is 18 percent this quarter. This is partially because all observations of tie-breaker RTKs were stocked out this quarter. Tie-breaker RTKs are a slow-moving product in the country, which can lead to expiries. In January 2019, the product expired at many facilities, causing it to be distributed widely and leading to a stock-out at the central level. An order has since been placed with Global Fund and is expected to be expedited. Similarly, second RTKs saw stock-outs this quarter due to expiries, with 2 of the 3 observations (66 percent) being stocked out.

Supply plans, innovations, and strategic activities

Country

Lesotho 

Total Innovations implemented this quarter

New approaches **1**

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
TO1-HIV/AIDS	New approaches	Category B products are now included in the Informed Push system for reporting and requesting of commodities to increase accountability of used Category B products. Category B products are those that are not donor-funded and are procured directly by the health facilities at the central medical stores. There previously was no tracking system for Category B products.

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group Supply Plan Submission Status

Analysis

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details

Molecular Instruments and HIV Tracer Products

Country

Lesotho

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

GHSC-PSM does not manage or support maintenance for any molecular instruments in Lesotho.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/600 mg
2nd line adult ARV	Lopinavir/Ritonavir 200/50 mg
Pediatric ARV	Abacavir/Lamivudine 60/30 mg
First RTK	Determine
Second RTK	Uni-Gold
Tie-breaker RTK	Bioline
Viral load reagent	COBAS, TaqMan, CAP/CTM HIV v2.0, Quantitative, 48 Tests
Viral load consumable	Not reported
EID reagent	COBAS TaqMan AmpliPrep, HIV-1 Qualitative Test, v2.0, 48
EID consumable	Not reported

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

Country

FY Quarter

Lesotho

2019-Q2

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	18.9%	1,464
1st line adult ARV	0.0%	200
2nd line adult ARV	4.6%	194
Pediatric ARV	6.5%	168
First RTK	5.6%	177
Second RTK	14.7%	177
Tie-breaker RTK	32.1%	159
Viral load reagent	0.0%	4
EID reagent	0.0%	1
Male condoms (HIV)	4.4%	114
Female condoms (HIV)	7.9%	101
RUTF	92.9%	169
Total	18.9%	1,464

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
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See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	100%	201

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	42%	18%	21%	18%	33
TO1-HIV/AIDS	42%	18%	21%	18%	33
Total	42%	18%	21%	18%	33

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

C2. Number of people trained

Task Order	Total
Total	

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
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C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
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For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

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Country M&E Indicator Performance

Country

Liberia 



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
Total		

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
Total		

Analysis

An end user verification survey was conducted at the end of Q2 into the beginning of Q3. Stock-out rates for malaria and family planning products collected in this survey will be reported in FY2019 Q3.

Liberia is in the process of rolling out a new eLMIS solution for county- and facility-level reporting. B3 will be reported once the roll out is complete.

Warehouse stock status and product losses

Country

Liberia

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	57	14%	46%	28%	12%
TO2-Malaria	33	21%	36%	33%	9%
TO3-PRH	24	4%	58%	21%	17%
Total	57	14%	46%	28%	12%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

- B2** Liberia improved its stocked according to plan status this quarter, increasing from 17 percent overall in Q1 to 28 percent overall in Q2. The improvement was especially pronounced for malaria products, for which stockout observation fell from 33 to 21 percent, and stocked according to plan improved from 12 to 33 percent. For family planning, stockouts have declined with the arrival of shipments of copper-bearing IUDs. Understocking remained persistent throughout the quarter, but was improved with the arrival of several commodities (standard days methods, injectables, combined and progestin-only contraceptives) in March.
- C7** No product losses to report this quarter.

Supply plans, innovations, and strategic activities

Country

Liberia 

Total Innovations implemented this quarter

Type of innovation # of innovations

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
FP commodities	Yes

Analysis

Liberia is reporting on this indicator for the first time, as the team is now expected to submit supply plans for family planning commodities. The plan has been submitted as required.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Complete Results and Denominators

Country

FY Quarter

Liberia

2019-Q2

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
Total		

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	28%	12%	46%	14%	57
TO2-Malaria	33%	9%	36%	21%	33
TO3-PRH	21%	17%	58%	4%	24
Total	28%	12%	46%	14%	57

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

C2. Number of people trained

Task Order	Total
Total	

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
FP commodities	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country

Malawi 



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	3,852	7.0%
1st line adult ARV	567	0.7%
2nd line adult ARV	445	8.8%
Pediatric ARV	559	2.7%
First RTK	590	5.8%
Second RTK	578	18.7%
Male condoms (HIV)	569	9.3%
Female condoms (HIV)	544	3.1%
Total	3,852	7.0%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	4,226	5.8%
AL 6x1	618	1.1%
AL 6x2	617	8.3%
AL 6x3	616	6.8%
AL 6x4	622	5.1%
mRDT	619	1.8%
SP	607	6.3%
LLINs	527	11.8%
Total	4,226	5.8%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	4,742	7.0%
Combined oral contraceptive with iron	563	8.0%
DMPA-Intramuscular injectable	562	11.9%
1-rod implant	529	8.7%
2-rod implant	465	12.3%
Emergency contraceptive, 2 tablets	509	2.0%
Progestin only pills	533	6.8%
Copper-bearing IUD	468	0.4%
Male condoms (FP)	569	9.3%
Female condoms (FP)	544	3.1%
Total	4,742	7.0%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	656	89%
TO2-Malaria	656	94%
TO3-PRH	661	85%
TO4-MCH	651	92%
Total	2,624	90%

Analysis

Overall stock-out rate for HIV products is 7 percent, with stock-outs under 1 percent for first-line adult ARVs. Stock-outs of second RTKs remain elevated, at 19 percent, but this is a reduction from the previous quarter (23 percent). For malaria, AL inability to treat fell to its lowest level in the last four quarters, at only 0.2 percent, although stock-outs of some individual presentations did increase. LLINs also had an improvement, from 23 percent down to 12 percent this quarter, due to resupplies in February. For family planning, stock-out rates came down in Q2 with only one product (two-rod implants) registering an increase (from 7 percent to 12 percent). Redistribution anchored by the support provided by Regional Commodity Logistics Officers (RCLOs) contributed to keeping stock-outs low.

Reporting rates across program areas remained high, with a slight dip in Q2 which was due to moving up the closing date for reporting to ensure that reports are produced sooner. The project is continuing to support the MOH to sustain high SDP reporting rates. GHSC-PSM is also working with the Central Monitoring and Evaluation Division (CMED) at the MOH on the interoperability of OpenLMIS and DHIS2 to improve visibility and quality of data for health commodities and other medical supplies.

Warehouse stock status and product losses

Country

Malawi

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	46		29%	57%	14%
TO1-HIV/AIDS	14			100%	
TO2-Malaria	14		29%	57%	14%
TO3-PRH	18		56%	22%	22%
Total	46		29%	57%	14%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

- B2** 100 percent of stock observations for HIV products were within min/max levels, a continuation of strong performance. Stock status improved for malaria commodities, increasing from 43 to 57 percent of observations according to plan and eliminating central level stock-outs. For family planning, stock levels did fall below the minimum for several products, including 3-month injectables, 1-rod implants, progestin and combined oral contraceptives, and female condoms. Several partners, including USAID, UNFPA/DFID and the Global Fund have confirmed funding commitments to cover family planning gaps, which is expected to improve stock levels as these commitments are fulfilled.
- C7** No product losses to report this quarter.

Supply plans, innovations, and strategic activities

Country

Malawi 

Total Innovations implemented this quarter

Type of innovation # of innovations

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
Condoms	Yes
FP commodities	Yes
Malaria commodities	Yes
RTKs	No
VMMC	Yes

Analysis

Malawi submitted VMMC, family planning, malaria and condom supply plans as required this quarter. The RTK supply plan is among Malawi's submission expectations, but it was not submitted as these products are mainly managed by the Global Fund.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	Total
Female	29	29
Male	61	61
Total	90	90

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	Total
TO-specific	90	90
Total	90	90

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	Total
Subnational level 1	90	90
Total	90	90

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	Total
Human Resources Capacity Development	90	90
Total	90	90

Analysis

GHSC-PSM supported the Ministry of Health (MOH) through the Department of HIV and AIDS (DHA) in training 90 district pharmacy personnel in PEPFAR priority districts (Mangochi, Machinga, Zomba, Blantyre, Chikwawa, Thyolo, Mulanje and Lilongwe). The DHA recently adopted the new adult ART regimen containing tenofovir, lamivudine and dolutelgravir (TLD), as per WHO recommendations. This training equipped DHA pharmacy personnel with knowledge and skills for administering and managing TLD.

Molecular Instruments and HIV Tracer Products

Country

Malawi

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

GHSC-PSM does not manage or support maintenance for any molecular instruments in Malawi.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/600 mg
2nd line adult ARV	Atazanavir/Ritonavir 300/100 mg
Pediatric ARV	Zidovudine/Lamivudine/Nevirapine 60/30/50 mg
First RTK	Determine
Second RTK	Uni-Gold
Tie-breaker RTK	Not reported
Viral load reagent	Not reported
Viral load consumable	Not reported
EID reagent	DBS Bundles for Early infant diagnosis (EID) and Viral Load testing
EID consumable	Not reported

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	7.0%	3,852
1st line adult ARV	0.7%	567
2nd line adult ARV	8.8%	445
Pediatric ARV	2.7%	559
First RTK	5.8%	590
Second RTK	18.7%	578
Male condoms (HIV)	9.3%	569
Female condoms (HIV)	3.1%	544
TO2-Malaria	5.8%	4,226
AL 6x1	1.1%	618
AL 6x2	8.3%	617
AL 6x3	6.8%	616
AL 6x4	5.1%	622
mRDT	1.8%	619
SP	6.3%	607
LLINs	11.8%	527
TO3-PRH	7.0%	4,742
Combined oral contraceptive with iron	8.0%	563
DMPA-Intramuscular injectable	11.9%	562
1-rod implant	8.7%	529
2-rod implant	12.3%	465
Emergency contraceptive, 2 tablets	2.0%	509
Progestin only pills	6.8%	533
Copper-bearing IUD	0.4%	468
Male condoms (FP)	9.3%	569
Female condoms (FP)	3.1%	544
Total	6.6%	11,707

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	0.2%	613
TO3-PRH		
Combined oral methods	8.0%	563
Injectable contraceptives	11.9%	562
Implantable contraceptives	10.7%	541
Emergency oral contraceptives	2.0%	509
Progestin-only methods	6.8%	533

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	89%	656
TO2-Malaria	94%	656
TO3-PRH	85%	661
TO4-MCH	92%	651

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	57%	14%	29%		42
TO1-HIV/AIDS	100%				14
TO2-Malaria	57%	14%	29%		14
TO3-PRH	22%	22%	56%		18
Total	57%	14%	29%		42

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

FY Quarter

Malawi

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	29	61	90
Total	29	61	90

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
Condoms	1	1
FP commodities	1	1
Malaria commodities	1	1
RTKs	1	0
VMMC	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	6,968	14.2%
AL 6x1	1,038	7.7%
AL 6x2	1,018	13.1%
AL 6x3	912	22.9%
AL 6x4	943	27.1%
mRDT	1,041	6.5%
SP	1,021	8.0%
LLINs	995	16.0%
Total	6,968	14.2%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	7,349	17.6%
Combined oral contraceptive with iron	928	20.2%
DMPA-Intramuscular injectable	1,004	7.7%
2-rod implant	991	10.8%
Progestin only pills	799	31.2%
Copper-bearing IUD	960	17.2%
Calendar-based awareness methods	892	18.0%
Male condoms (FP)	934	15.0%
Female condoms (FP)	841	24.5%
Total	7,349	17.6%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	123	24%
TO2-Malaria	1,222	96%
TO3-PRH	1,222	96%
TO4-MCH	1,222	96%
Total	3,789	93%

Analysis

Mali's overall stockout rate increased from 11 to 16 percent this quarter. The country's lack of adherence to the supply plan and lack of adherence to delivery dates by entities other than GHSC-PSM can explain this. While a malaria supply plan had been developed and distribution plans adhered to, the family planning supply plan was just developed this quarter. Distribution still faces numerous challenges, such as uneven donor support among facilities. The project is advocating for the government to regularly monitor data in the eLMIS and OSPSANTE, and to better coordinate among stakeholders to ensure full adherence to distribution plans.

Reporting rates for malaria and family planning commodities increased from 87 to 96 percent, while the reporting rate for HIV/AIDS increased from 16 to 24 percent. The reporting rate is expected to continue to improve, as in March GHSC-PSM conducted a short-term technical assistance assignment to help resolve OSPSANTE and DHIS2 interoperability issues and to add new features to OSPSANTE.

Warehouse stock status and product losses

Country

Mali

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	42	57%	10%	2%	31%
TO2-Malaria	18	44%	17%	6%	33%
TO3-PRH	24	67%	4%		29%
Subnational level 1	185	58%	7%	9%	26%
TO2-Malaria	75	71%	8%	3%	19%
TO3-PRH	110	49%	6%	13%	32%
Total	227	58%	7%	7%	27%

Indicator Analysis

B2 Only two percent of stock status observations this quarter were stocked according to plan, while 57 percent were stocked out. The majority of the stockouts at the central level were of family planning commodities, however at regional warehouses, 71 percent of stock observations for malaria commodities were stocked out, while for FP/RH commodities 49 percent of observations were stocked out. The project is advocating for the government to develop a mechanism to better schedule deliveries based on available space at the central medical store.

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Supply plans, innovations, and strategic activities

Total Innovations implemented this quarter

New approaches New technologies

1

1

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
Crosscutting	New approaches	The project implemented the revised End Use Verification (EUV) survey for the first time this quarter, which included the following new elements: - Use of an updated, standardized questionnaire -Use of an updated sampling approach to ensure national representativeness and improved precision - Training of data collectors using an updated, standardized curriculum - Use of SurveyCTO through mobile devices and through syncing data to a central repository that will allow for automated analysis and the project's increased access to raw data
Crosscutting	New technologies	Upgrade of OSPSANTE to include new functionalities: GHSC-PSM in Mali aims to reduce stock-outs and wastage of medicines and other pharmaceuticals, and to improve the availability and accessibility of health products to the Malian population. In line with these goals, GHSC-PSM is providing support to the Department of Pharmacy and Medicinal Products (DPM) and other stakeholders toward the implementation of a web-based LMIS dashboard called OSPSANTE, which is used for collecting, analyzing and disseminating data on commodities and health service provision. The LMIS presents data on HIV/AIDS, malaria, family planning, and maternal and child health commodities in real time. OSPSANTE was launched in Mali in 2014 to provide information for mitigating stock-outs and minimizing stock expiries. This quarter, GHSC-PSM supported the development and launch of more than 20 new functionalities and updates to the system, among them the ability to use days of stock-outs in calculating average monthly consumption, a report on the mean absolute percent consumption forecast error with forecast bias variant, aligning minimum and maximum stock levels with the current national SOPs, aligning CYP conversion factors with those of USAID, and incorporating nutrition, HIV and Ebola into the monthly logistics wizard report, among many other changes.

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
FP commodities	Yes
MCH commodities	Yes

Analysis

A family planning supply plan was developed for the first time this quarter and submitted to the GHSC-PSM home office.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Female		2	1	2	5
Male	1	5	1	5	12
Total	1	7	2	7	17

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Cross-TO	1	7	2	7	17
Total	1	7	2	7	17

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Central	1	7	2	7	17
Total	1	7	2	7	17

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
MIS	1	7	2	7	17
Total	1	7	2	7	17

Analysis

A group of 17 LMIS administrators, representing various stakeholders, were trained this quarter in OSPSANTE interoperability and back-end management. The group was composed of 12 men and 5 women.

Molecular Instruments and HIV Tracer Products

Country

Mali

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/600 mg
2nd line adult ARV	Lopinavir/Ritonavir 200/50 mg
Pediatric ARV	Abacavir/Lamivudine 60/30 mg
First RTK	Alere Ag/AB Combo
Second RTK	Bioline
Tie-breaker RTK	First Response
Viral load reagent	M2000 RT amplification reagent
Viral load consumable	pipet tip 1000 µL
EID reagent	Ampliprep Cobas Taqman HIV-1 qualitative test
EID consumable	SPU Roche

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO2-Malaria	14.2%	6,968
AL 6x1	7.7%	1,038
AL 6x2	13.1%	1,018
AL 6x3	22.9%	912
AL 6x4	27.1%	943
mRDT	6.5%	1,041
SP	8.0%	1,021
LLINs	16.0%	995
TO3-PRH	17.6%	7,349
Combined oral contraceptive with iron	20.2%	928
DMPA-Intramuscular injectable	7.7%	1,004
2-rod implant	10.8%	991
Progestin only pills	31.2%	799
Copper-bearing IUD	17.2%	960
Calendar-based awareness methods	18.0%	892
Male condoms (FP)	15.0%	934
Female condoms (FP)	24.5%	841
Total	15.9%	14,317

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	1.0%	1,063
TO3-PRH		
Combined oral methods	20.2%	928
Injectable contraceptives	7.7%	1,004
Implantable contraceptives	10.8%	991
Progestin-only methods	31.2%	799

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	24%	123
TO2-Malaria	96%	1,222
TO3-PRH	96%	1,222
TO4-MCH	96%	1,222

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	2%	31%	10%	57%	42
TO2-Malaria	6%	33%	17%	44%	18
TO3-PRH		29%	4%	67%	24
Subnational level 1	9%	26%	7%	58%	185
TO2-Malaria	3%	19%	8%	71%	75
TO3-PRH	13%	32%	6%	49%	110
Total	7%	27%	7%	58%	227

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

FY Quarter

Mali

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS		1	1
TO2-Malaria	2	5	7
TO3-PRH	1	1	2
TO4-MCH	2	5	7
Total	5	12	17

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
FP commodities	1	1
MCH commodities	1	1

C10. HIV molecular instrument functionality

GHSC-PSM-supported instruments % of instruments that functional for the entire period

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country

Mozambique



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	4,489	8.3%
1st line adult ARV	1,453	0.6%
2nd line adult ARV	584	8.0%
Pediatric ARV	1,191	2.3%
First RTK	294	12.9%
Second RTK	393	29.8%
Viral load reagent	27	0.0%
EID reagent	8	0.0%
Male condoms (HIV)	376	22.1%
Female condoms (HIV)	163	30.7%
Total	4,489	8.3%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	3,155	28.0%
AL 6x1	534	31.8%
AL 6x2	534	29.2%
AL 6x3	516	35.7%
AL 6x4	542	34.1%
mRDT	440	10.5%
SP	404	23.8%
LLINs	185	24.9%
Total	3,155	28.0%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	1,873	24.9%
Combined oral contraceptive	255	19.2%
DMPA-Subcutaneous injectable	141	48.2%
DMPA-Intramuscular injectable	451	32.8%
2-rod implant	50	24.0%
Emergency contraceptive, 2 tablets	129	17.1%
Progestin only pills	146	7.5%
Copper-bearing IUD	162	14.2%
Male condoms (FP)	376	22.1%
Female condoms (FP)	163	30.7%
Total	1,873	24.9%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	2,389	86%
TO2-Malaria	879	65%
TO3-PRH	879	65%
TO4-MCH	879	65%
Total	5,026	75%

Analysis

The LMIS reporting rate for TO1 saw a notable decrease, from 99 percent last quarter to 86 percent this quarter. This is because facilities are having difficulty reporting due to logistics issues, such as some tablets have not been delivered to health facilities to enable reporting and other tablets have been broken or stolen. The reporting rate for TO2, TO3, and TO4 increased

This quarter, the number of SDPs that reported decreased for majority of the tracer products. This is because SIGLUS master data was aligned with the national facility and product lists from the Master Data Management (MDM) tool, Ferramenta Central (FC). FC manages and maintains master data across all systems under PSM/CMS (SIGLUS, MACS, SIMAM). This cleanup process resulted in SIGLUS master codes being renamed, recoded, and, in some instances, inactivated or deleted because they were duplicated. Data quality controls have been put in place to ensure more accurate data moving forward. Overall, the stock-out rate for TO1 and TO3 decreased by about 5 percent each this quarter (to 8 percent and 28 percent, respectively), while the overall TO2 rate increased marginally from 27 percent to 28 percent. The decrease in the stock-out rate can be attributed to the data cleaning process.

Warehouse stock status and product losses

Country

Mozambique

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	69	5%	32%	38%	25%
TO1-HIV/AIDS	21	0%	24%	48%	29%
TO2-Malaria	21	10%	33%	29%	29%
TO3-PRH	27	4%	30%	44%	22%
Subnational level 1	828	9%	38%	33%	19%
TO1-HIV/AIDS	252	8%	40%	37%	15%
TO2-Malaria	252	8%	46%	34%	12%
TO3-PRH	324	12%	30%	28%	30%
Total	897	8%	38%	34%	20%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
TO1	Global	Transit	Missing product	VMMC	\$487	\$12,072,094	0.00%

Indicator Analysis

- B2** Across health elements, the stock status rates remained fairly consistent with the previous quarter (FY19Q1), with the largest difference being in the stock out rate which went from 4 percent last quarter to 8 percent this quarter. This is partially attributed to the fact that emergency oral contraceptives were stocked out at the central level this quarter.
- C7** An order of VMMCs arrived in Mozambique in June 2018 with 116 kits missing; 10,720 of the 10,836 kits ordered had been delivered.

Supply plans, innovations, and strategic activities

Total Innovations implemented this quarter

New approaches

1

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
TO1-HIV/AIDS	New approaches	The GHSC-PSM lab team transferred the management of the CD4 conventional network to the Central Department of Laboratory in December 2018. PEPFAR has supported this lab area since 2007 and the transition process began in 2018, starting with a two-day workshop explaining all supply processes, from FASP activities to equipment maintenance, for 56 sites in all provinces and involving different levels of the national health system. The network of CD4 testing is now being managed by the MoH Lab Department.

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
ARVs	Yes
Condoms	Yes
FP commodities	Yes
Lab (HIV diagnostics)	Yes
Malaria commodities	Yes
MCH commodities	Yes
RTKs	Yes
VMMC	Yes

Analysis

Mozambique submitted all 8 required supply plans this quarter. They have submitted all required supply plans since first reporting in FY16 Q4.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Female	37	9	3	3	52
Male	49	9	3	2	63
Total	86	18	6	5	115

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Cross-TO	71	18	6	5	100
TO-specific	15				15
Total	86	18	6	5	115

Analysis

GHSC-PSM Mozambique conducted five trainings this quarter, four of which were cross-cutting across task orders. In total, 115 people were trained.

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Central	9	2	1	0	12
Subnational level 1	5	2	0	0	7
Subnational level 2	3	2	0	0	5
SDP	69	12	5	5	91
Total	86	18	6	5	115

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Human Resources Capacity Development	15				15
Transportation and Distribution	9	2	1	0	12
Warehousing and Inventory Management	62	16	5	5	88
Total	86	18	6	5	115

Molecular Instruments and HIV Tracer Products

Country

Mozambique 

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

52%

Analysis

This quarter, GHSC-PSM Mozambique reported on one additional molecular instrument, which was installed in January 2019. Overall, the percent of molecular instruments that remained functional this quarter increased by 21 percent. Of the 27 molecular instruments, 7 had a service disruption. Those disruptions lasted from 1 to 19 days.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Efavirenz/Lamivudine/Tenofovir 600/300/300 mg
2nd line adult ARV	Atazanavir/Ritonavir (300/100mg)
Pediatric ARV	Lamivudine/Nevirapine/Zidovudine 30/50/60mg, dispersible tablets, 60 Tabs
First RTK	Determine Kit 100 Tests
Second RTK	Uni-Gold Kit 20 tests
Tie-breaker RTK	Not reported
Viral load reagent	Abbot RealTime HIV-1 Aplification Reagent Kit Quant, 4 x 24 tests
Viral load consumable	Not reported
EID reagent	KIT CAP-G/CTM HIV-QUAL 48T CE IVD
EID consumable	Not reported

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	8.3%	4,489
1st line adult ARV	0.6%	1,453
2nd line adult ARV	8.0%	584
Pediatric ARV	2.3%	1,191
First RTK	12.9%	294
Second RTK	29.8%	393
Viral load reagent	0.0%	27
EID reagent	0.0%	8
Male condoms (HIV)	22.1%	376
Female condoms (HIV)	30.7%	163
TO2-Malaria	28.0%	3,155
AL 6x1	31.8%	534
AL 6x2	29.2%	534
AL 6x3	35.7%	516
AL 6x4	34.1%	542
mRDT	10.5%	440
SP	23.8%	404
LLINs	24.9%	185
TO3-PRH	24.9%	1,873
Combined oral contraceptive	19.2%	255
DMPA-Subcutaneous injectable	48.2%	141
DMPA-Intramuscular injectable	32.8%	451
2-rod implant	24.0%	50
Emergency contraceptive, 2 tablets	17.1%	129
Progestin only pills	7.5%	146
Copper-bearing IUD	14.2%	162
Male condoms (FP)	22.1%	376
Female condoms (FP)	30.7%	163
Total	17.7%	8,978

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	10.2%	579
TO3-PRH		
Combined oral methods	19.2%	255
Injectable contraceptives	31.8%	465
Implantable contraceptives	24.0%	50
Emergency oral contraceptives	17.1%	129
Progestin-only methods	7.5%	146

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	86%	2,389
TO2-Malaria	65%	879
TO3-PRH	65%	879
TO4-MCH	65%	879

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	38%	25%	32%	5%	63
TO1-HIV/AIDS	48%	29%	24%	0%	21
TO2-Malaria	29%	29%	33%	10%	21
TO3-PRH	44%	22%	30%	4%	27
Subnational level 1	33%	19%	38%	9%	756
TO1-HIV/AIDS	37%	15%	40%	8%	252
TO2-Malaria	34%	12%	46%	8%	252
TO3-PRH	28%	30%	30%	12%	324
Total	34%	20%	38%	8%	819

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

Mozambique

FY Quarter

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	37	49	86
TO2-Malaria	9	9	18
TO3-PRH	3	3	6
TO4-MCH	3	2	5
Total	52	63	115

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
ARVs	1	1
Condoms	1	1
FP commodities	1	1
Lab (HIV diagnostics)	1	1
Malaria commodities	1	1
MCH commodities	1	1
RTKs	1	1
VMMC	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
27	52%

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country

Service Delivery Point Stockouts and Reporting Rates

For countries with data available from GHSC-PSM non-supported regions

B1. Stockout rate at service delivery points - SDPs located in supported regions

GHSC-PSM Support	Stockout rate	# SDP stock observations
Supported	0.0%	100
TO1-HIV/AIDS	0.0%	100
1st line adult ARV	0.0%	15
2nd line adult ARV	0.0%	15
Pediatric ARV	0.0%	15
First RTK	0.0%	15
Second RTK	0.0%	15
Tie-breaker RTK	0.0%	15
Male condoms (HIV)	0.0%	5
Female condoms (HIV)	0.0%	5
Total	0.0%	100

B1. Stockout rate at service delivery points - SDPs located in non-supported regions

GHSC-PSM Support	Stockout rate	# SDP stock observations
Not Supported	2.8%	318
TO1-HIV/AIDS	2.8%	318
1st line adult ARV	0.0%	46
2nd line adult ARV	2.2%	46
Pediatric ARV	2.2%	46
First RTK	2.2%	46
Second RTK	0.0%	46
Tie-breaker RTK	10.9%	46
Male condoms (HIV)	4.8%	21
Female condoms (HIV)	0.0%	21
Total	2.8%	318

B3. LMIS reporting rate

GHSC-PSM Support	Total # of SDPs required to report	Reporting rate
Supported	15	100%
Not Supported	50	92%
Total	65	94%

Analysis

Above data pertains to Task Order 1. (No other task orders are operating in Namibia).

Namibia reported no stock-outs of any HIV tracer commodity in GHSC-PSM-supported sites this quarter. In non-supported sites, a few stock-outs were reported across first RTKs, tie-breaker RTKs, pediatric ARVs, adult first-line ARVs, and one stock-out of male condoms. GHSC-PSM worked with district-level MoHSS pharmacy staff to redistribute existing stock of tie-breaker RTKs. The project also worked with CMS to expedite delivery of stocked out products. Additionally, GHSC-PSM continues to support SDPs to utilize the available site level eLMIS tool for proper inventory management and timely ordering. The team will conduct a Pharmaceutical Budgeting Workshop in April 2019 to reinforce the use of available eLMIS tools for inventory management and budget control.

The reporting rate in GHSC-PSM supported sites remained high, at 100 percent. The rate in unsupported sites improved from the previous quarter, although timeliness remains less consistent.

Warehouse stock status and product losses

Country

Namibia

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	16	19%	63%	6%	13%
TO1-HIV/AIDS	16	19%	63%	6%	13%
Subnational level 1	32	13%	34%	47%	6%
TO1-HIV/AIDS	32	13%	34%	47%	6%
Total	48	15%	44%	33%	8%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

- B2** The overall stocked according to plan rate increased slightly, from 29 to 33 percent, while the rate of stock-outs was reduced. The lack of a framework contract to ensure a stable supply of ARVs continues to contribute to a high percentage of understocked and stocked out observations. Fortunately, the government ARV tender that closed in September 2018 was awarded in March by the Central Procurement Board. GHSC-PSM is working with government CMS to prepare supply plans to be shared with suppliers who won the tender. To help address specific MOHSS difficulties in sourcing pediatric ARVs, GHSC-PSM ordered seven pediatric ARVs requested by MOHSS. Three of these products have since been delivered to CMS.
- C7** GHSC-PSM does not have custody of any products in the country and therefore does not report on product losses.

Supply plans, innovations, and strategic activities

Country

Namibia 

Total Innovations implemented this quarter

New approaches **1**

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
TO1-HIV/AIDS	New approaches	Namibia was among the first GHSC-PSM countries to triangulate LMIS data against ART patient treatment data reported in DATIM, the PEPFAR reporting portal. This preliminary analysis, supported by the SC-FACT team at GHSC-PSM HQ, showed that the quantities of ARV issues were significantly higher than the number of patients at most facilities in Namibia. The project identified 41 sites (77.4 percent of all sites) that issued high quantities of first line ARVs compared to their patient volume. This discrepancy was mostly attributed to incomplete reporting of patient numbers on the electronic patient management system (EPMS). Going forward, the USAID Mission will incorporate patient data reported through the electronic dispensing tool (EDT), which is supported by the GHSC-PSM project, to provide a more complete picture of ART patient numbers in Namibia.

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
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Analysis

There are currently no supply plan submission expectations for Namibia.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	Total
Female	2	2
Male	6	6
Total	8	8

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	Total
TO-specific	8	8
Total	8	8

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	Total
SDP	8	8
Total	8	8

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	Total
Warehousing and Inventory Management	8	8
Total	8	8

Analysis

The project trained 8 people in the use of MIS tools and inventory management. On-the-job training on the Facility Electronic Stock Card (FESC) has helped staff in Kavango region to be confident in using the tool and is expected to improve stock management.

Molecular Instruments and HIV Tracer Products

Country

Namibia

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

GHSC-PSM does not manage or support maintenance for any molecular instruments in Namibia.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir DF/Lamivudine/Efavirenz 300/300/400 mg
2nd line adult ARV	Atazanavir/Ritonavir 300/100 mg
Pediatric ARV	Abacavir/Lamivudine 60/30 mg
First RTK	Colloidal Gold Device HIV 1 /2
Second RTK	Uni-Gold HIV 1 /2
Tie-breaker RTK	Sure Check HIV 1 /2
Viral load reagent	Not reported
Viral load consumable	Not reported
EID reagent	Not reported
EID consumable	Not reported

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

Country

FY Quarter

Namibia

2019-Q2

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	0.0%	100
1st line adult ARV	0.0%	15
2nd line adult ARV	0.0%	15
Pediatric ARV	0.0%	15
First RTK	0.0%	15
Second RTK	0.0%	15
Tie-breaker RTK	0.0%	15
Male condoms (HIV)	0.0%	5
Female condoms (HIV)	0.0%	5
Total	0.0%	100

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
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See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	100%	15

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	6%	13%	63%	19%	16
TO1-HIV/AIDS	6%	13%	63%	19%	16
Subnational level 1	47%	6%	34%	13%	32
TO1-HIV/AIDS	47%	6%	34%	13%	32
Total	33%	8%	44%	15%	48

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	2	6	8
Total	2	6	8

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
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C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
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For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

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Country M&E Indicator Performance

Country



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	9,575	10.7%
Combined oral contraceptive with iron	2,518	8.1%
DMPA-Intramuscular injectable	2,518	9.1%
2-rod implant	1,216	18.3%
Copper-bearing IUD	812	17.6%
Male condoms (FP)	2,511	9.1%
Total	9,575	10.7%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO3-PRH	4,145	24%
TO4-MCH	4,145	24%
Total	8,290	24%

Analysis

Nepal continues to grapple with the effects of Federalism, and the added layer in the reporting channel for LMIS reporting has been a challenge. That being said, on time-reporting has increased from 0 percent last quarter to 24 percent this quarter. M&E is continuing to try to not only increase the reporting rate but also to get the LMIS reports on time. The M&E team sends reminders to staff traveling to the field to follow up for LMIS reports in the areas they are visiting and to bring the reports with them whenever possible.

The stock-out data submitted in FY19Q2 is for July 15-October 15 2018 (FY75/76Q1). Paper reporting systems means that stock data is delayed by 1 quarter against the USG quarters. Additionally, the Nepali calendar is offset from the Gregorian calendar which is why the data starts on the 15th of the month. The stock-out data are analyzed on approximately 61 percent reporting, however, the reporting rate for each commodity varies. Out of five FP commodities, implants and IUDs had high stock-outs (18 percent) compared to the other three FP commodities. However, the stock status at storage sites for the same period shows very few stock-outs.

Warehouse stock status and product losses

Country

Nepal

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	5		40%	20%	40%
TO3-PRH	5		40%	20%	40%
Subnational level 1	20	5%	60%	5%	30%
TO3-PRH	20	5%	60%	5%	30%
Subnational level 2	276	5%	39%	18%	38%
TO3-PRH	276	5%	39%	18%	38%
Total	301	5%	41%	17%	38%

Indicator Analysis

B2

The stock status at storage sites data was taken from April 15-July 15 2018. Overall, stocked according to plan rates at central level decreased from 25 to 13 percent. However these rates have remained stable at subnational 1 and subnational 2 levels. No stock-outs were reported at the central level. At the subnational 1 level, only stock-outs of copper-bearing intrauterine devices were reported.

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Supply plans, innovations, and strategic activities

Country

Nepal 

Total Innovations implemented this quarter

Type of innovation # of innovations

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
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B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
Condoms	Yes
FP commodities	Yes

Analysis

Nepal has submitted all required supply plans this quarter.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO3-PRH	TO4-MCH	Total
Female	22	15	37
Male	110	89	199
Total	132	104	236

C2. Number of people trained by funding source and type

Type	TO3-PRH	TO4-MCH	Total
Cross-TO	132	104	236
Total	132	104	236

Analysis

▲
In FY19Q2, 236 people participated in training/orientation/workshop on supply chain function related to quantification, human resource development and the eLMIS data entry module. Fifty-seven people participated in a workshop on Consensus Quantification of Essential Drugs and Other Health Commodities in provinces 1 and 5. Additionally, five supply chain pharmacists and one LMIS supervisor received a one-day orientation in the beginning of their deployment to the duty station.

C2. Number of people trained by supply chain level

Supply Chain Level	TO3-PRH	TO4-MCH	Total
Central	6	3	9
Subnational level 1	31	24	55
Subnational level 2	84	68	152
SDP	11	9	20
Total	132	104	236

C2. Number of people trained by technical area

Supply Chain Function	TO3-PRH	TO4-MCH	Total
Forecasting and Supply Planning	32	25	57
Human Resources Capacity Development	5	1	6
MIS	95	78	173
Total	132	104	236

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO3-PRH	10.7%	9,575
Combined oral contraceptive with iron	8.1%	2,518
DMPA-Intramuscular injectable	9.1%	2,518
2-rod implant	18.3%	1,216
Copper-bearing IUD	17.6%	812
Male condoms (FP)	9.1%	2,511
Total	10.7%	9,575

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO3-PRH		
Combined oral methods	8.1%	2,518
Injectable contraceptives	9.1%	2,518
Implantable contraceptives	18.3%	1,216

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO3-PRH	24%	4,145
TO4-MCH	24%	4,145

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	20%	40%	40%		5
TO3-PRH	20%	40%	40%		5
Subnational level 1	5%	30%	60%	5%	20
TO3-PRH	5%	30%	60%	5%	20
Subnational level 2	18%	38%	39%	5%	276
TO3-PRH	18%	38%	39%	5%	276
Total	17%	38%	41%	5%	301

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

Nepal

FY Quarter

Multiple selections

C2. Number of people trained

Task Order	Female	Male	Total
TO3-PRH	22	110	132
TO4-MCH	15	89	104
Total	37	199	236

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
Condoms	1	1
FP commodities	1	1

C10. HIV molecular instrument functionality

GHSC-PSM-supported instruments

% of instruments that functional for the entire period

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

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Country M&E Indicator Performance

Country

Nigeria



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	14,941	10.9%
1st line adult ARV	2,500	4.8%
2nd line adult ARV	668	5.8%
Pediatric ARV	898	3.1%
First RTK	2,943	10.0%
Second RTK	2,254	21.4%
Tie-breaker RTK	1,521	8.5%
Viral load reagent	20	0.0%
Viral load consumable	20	0.0%
EID reagent	20	20.0%
EID consumable	20	0.0%
Male condoms (HIV)	1,527	18.0%
Female condoms (HIV)	2,550	10.4%
Total	14,941	10.9%

Total Analysis

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	31,751	6.8%
AL 6x1	3,442	5.3%
AL 6x2	3,411	5.9%
AL 6x3	3,414	9.4%
AL 6x4	3,436	6.1%
AS/AQ 100/270mgx3	2,164	7.5%
AS/AQ 100/270mgx6	2,134	8.2%
AS/AQ 25/67.5mg	2,435	5.9%
AS/AQ 50/135mg	2,220	7.4%
mRDT	3,405	6.7%
SP	3,106	7.1%
LLINs	2,584	6.3%
Total	31,751	6.8%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	16,574	14.2%
Combined oral contraceptive	2,224	13.2%
NET-En Injectable	2,608	10.1%
DMPA-Intramuscular injectable	2,599	11.7%
1-rod implant	1,247	30.5%
2-rod implant	955	26.6%
Progestin only pills	2,099	11.4%
Copper-bearing IUD	765	10.8%
Male condoms (FP)	2,550	10.8%
Female condoms (FP)	1,527	17.3%
Total	16,574	14.2%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	3,164	97%
TO2-Malaria	3,666	98%
TO3-PRH	2,925	93%
Total	9,755	96%

For TO1, stock-out rates were higher than last quarter, largely driven by stock-outs of RTKs, particularly the second RTK with a stock rate of 21 percent. This was attributed to in-country supply gaps of the commodities during the distribution cycle. However, resupply of RTKs is now focused on health facilities that have testing targets. For TO2, ACT stock-outs generally decreased at the SDPs this quarter. For TO3, the stock-out rate was close to 14 percent, driven mostly by the high stock-out rates for implants (around 22 percent).

The SDP LMIS reporting rate has been consistently above the 90 percent threshold in the last four quarters for all task orders in Nigeria. For TO1, the reporting rate remained unchanged from 97 percent last quarter. TO2 and TO3 recorded reporting rates of 98 percent and 93 percent, respectively, representing a slight drop from 99 percent and 94 percent.

Warehouse stock status and product losses

Country

Nigeria

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	30		57%	23%	20%
TO1-HIV/AIDS	10		50%	40%	10%
TO2-Malaria	10		50%	10%	40%
TO3-PRH	10		70%	20%	10%
Total	30		57%	23%	20%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
TO1	Central	Storage	Expiry	ARVs	\$4,333	\$75,142,383	0.01%
TO1	Global	Transit	Damage	Adult ARVs	\$370	\$35,186,714	0.00%
TO1	Global	Transit	Missing product	Pediatric ARV	\$461	\$17,122,493	0.00%
TO1	SDP	Transit	Damage	ARVs, RTKs, lab, other pharma	\$33,425	\$19,073,886	0.18%
TO1	SDP	Transit	Missing product	ARVs, RTKs	\$585	\$18,292,110	0.00%
TO2	Central	Storage	Expiry	Severe Malaria Meds	\$16	\$14,000,908	0.00%
TO2	Global	Transit	Missing product	LLINs	\$2,450	\$7,700,767	0.03%
TO2	SDP	Transit	Damage	ACTs, SP, RDTs	\$1,349	\$6,738,520	0.02%
TO2	SDP	Transit	Missing product	ACTs	\$274	\$2,460,758	0.01%

Indicator Analysis

- B2** For TO1, the most used first-line ARV, (TDF/3TC/EFV) (300/300/600 mg) was understocked due to transition activities and delays with TLD. Unigold remained overstocked due to a sharp decline in consumption attributed to a target-based distribution strategy, but has little risk of expiry. Due to low uptake shipments of these commodities Artesunate-Amodiaquin, they continue to be overstocked and have been put on hold indefinitely because of the overstock at the central level. For family planning commodities, several products are understocked. For implants in particular, consumption has increased following trainings for providers at the SDP level on how to administer these products. Central stock levels have also dwindled due to the global supply constraints on implants. In coming shipments are expected to alleviate understocks in the coming months.
- C7** Note that losses are included in the quarterly report at the time that the loss value has been confirmed and adequately documented, which may be later than the initial incident occurrence or report.
- C7** Some incidents of product loss also occurred while items were in transit. Three were incidents of short shipments and small damages on Global Supply Chain deliveries. Other losses included small discrepancies and damages during the course of last mile distributions operated by GHSC-PSM's 3PL providers, including one incident of a truck overturning in a river. These losses were reimbursed by the 3PL providers, according to subcontract terms.
- C7** There were some minimal losses due to expiry for both HIV and malaria products. Both losses were within the acceptable threshold of less than 1 percent.

Supply plans, innovations, and strategic activities

Total Innovations implemented this quarter

New approaches New technologies

3

1

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
TO1-HIV/AIDS	New approaches	ART facility focal person routine meeting for both the pharmacy and laboratory focal person has been split into two meetings to give more attention to individual categories of stakeholders (pharmacy and laboratory). This is expected to help resolve issues which could have a negative effect supply on chain performance for ART commodities.
TO2-Malaria	New approaches	Computer based testing procedures for engagement of state level campaign adhoc personnel that will be involved in LLIN campaign.
Crosscutting	New technologies	Nigerian health Logistic Information management system (NHLMIS) has been adopted for transmission of service delivery point LMIS reports and the data output is now used to inform performance management at state and National level
Crosscutting	New approaches	Rapid Last Mile distribution is a new initiative to resupply health facilities identified as high volume sites. Rapid Last Mile uses historical LMIS data to determine reorder quantities rather than waiting for health facilities to submit LMIS reports with order quantities. This is expected to help the project reduce the burden of last-mile distribution in terms of volume of commodities and the amount of time during routine distribution.

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
ARVs	Yes
Condoms	Yes
FP commodities	Yes
Lab (HIV diagnostics)	Yes
Malaria commodities	Yes
RTKs	Yes

Analysis

Nigeria has submitted all required supply plans this quarter.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO4-MCH	Total
Female	695	695
Male	281	281
Total	976	976

C2. Number of people trained by funding source and type

Type	TO4-MCH	Total
TO-specific	976	976
Total	976	976

C2. Number of people trained by supply chain level

Supply Chain Level	TO4-MCH	Total
Subnational level 1	29	29
SDP	947	947
Total	976	976

C2. Number of people trained by technical area

Supply Chain Function	TO4-MCH	Total
Warehousing and Inventory Management	976	976
Total	976	976

Analysis

A total of 29 participants were selected across three states (Bauchi, Kebbi and Sokoto) to partake in the MNCH Training of Trainers (ToT) activity. The activity was targeted at building the knowledge of participants on the use of the MNCH Commodity Logistics System Standard Operating Procedure (SOP) Manual. The activity also focused on developing their capacity on MNCH Commodity Logistics System content by practicing and teaching the content using an Adult Learning Theory approach. Upon completion of the ToT, 25 participants were certified Master Trainers who were then deployed to Bauchi, Kebbi and Sokoto to roll out the MNCH Commodity Logistics System content and the use of its SOP to 947 health personnel from all the health facilities supported in the three states.

Molecular Instruments and HIV Tracer Products

Country

Nigeria ▼

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

37%

Analysis

Thirty-seven percent of GHSC-PSM-supported instruments experienced no downtime in the period. However, 27 machines recorded an average downtime of 14 days in FY2019 Q2 due to hardware errors, thermocycler challenges, electrical challenges and other issues. The GHSC-PSM lab team has and will continue to interface with the equipment vendors as well as the focal laboratory personnel at the facilities to ensure timely response to fix the equipment.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/600 mg
2nd line adult ARV	Lopinavir /Ritonavir 200/50mg and 100/25mg
Pediatric ARV	Zidovudine/Lamivudine/Nevirapine 60/30/50 mg
First RTK	Determine
Second RTK	Uni-Gold
Tie-breaker RTK	STAT-PAK
Viral load reagent	Molecular, m2000 RT PCR, VL Plasma Quantitative, Reagents and Consumable Bundle, 960 Tests, Molecular, m2000 RealTime PCR, HIV-1 Amplification Reagent Kit, Quantitative, 4 Packs x 24 Assays, Molecular, COBAS, TaqMan, CAP/CTM HIV v2.0, Quantitative, 48 Tests
Viral load consumable	Ktube
EID reagent	Molecular, m2000 RT PCR, EID Qualitative, Reagents and Consumable Bundle, 960 Tests, Molecular, COBAS TaqMan, AmpliPrep, HIV-1, Qualitative, 48 Tests,
EID consumable	K tube

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	10.9%	14,941
1st line adult ARV	4.8%	2,500
2nd line adult ARV	5.8%	668
Pediatric ARV	3.1%	898
First RTK	10.0%	2,943
Second RTK	21.4%	2,254
Tie-breaker RTK	8.5%	1,521
Viral load reagent	0.0%	20
Viral load consumable	0.0%	20
EID reagent	20.0%	20
EID consumable	0.0%	20
Male condoms (HIV)	18.0%	1,527
Female condoms (HIV)	10.4%	2,550
TO2-Malaria	6.8%	31,751
AL 6x1	5.3%	3,442
AL 6x2	5.9%	3,411
AL 6x3	9.4%	3,414
AL 6x4	6.1%	3,436
AS/AQ 100/270mgx3	7.5%	2,164
AS/AQ 100/270mgx6	8.2%	2,134
AS/AQ 25/67.5mg	5.9%	2,435
AS/AQ 50/135mg	7.4%	2,220
mRDT	6.7%	3,405
SP	7.1%	3,106
LLINs	6.3%	2,584
TO3-PRH	14.2%	16,574
Combined oral contraceptive	13.2%	2,224
NET-En Injectable	10.1%	2,608
DMPA-Intramuscular injectable	11.7%	2,599
1-rod implant	30.5%	1,247
2-rod implant	26.6%	955
Progestin only pills	11.4%	2,099
Copper-bearing IUD	10.8%	765
Male condoms (FP)	10.8%	2,550
Female condoms (FP)	17.3%	1,527
Total	9.5%	59,189

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	1.4%	3,460
TO3-PRH		
Combined oral methods	13.2%	2,224
Injectable contraceptives	4.7%	2,677
Implantable contraceptives	22.2%	1,327
Progestin-only methods	11.4%	2,099

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	97%	3,164
TO2-Malaria	98%	3,666
TO3-PRH	93%	2,925

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	23%	20%	57%		30
TO1-HIV/AIDS	40%	10%	50%		10
TO2-Malaria	10%	40%	50%		10
TO3-PRH	20%	10%	70%		10
Total	23%	20%	57%		30

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

FY Quarter

Nigeria

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO4-MCH	695	281	976
Total	695	281	976

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
ARVs	1	1
Condoms	1	1
FP commodities	1	1
Lab (HIV diagnostics)	1	1
Malaria commodities	1	1
RTKs	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
43	37%

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country

Pakistan



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
Total		

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	34,361	15.9%
Combined oral contraceptive with iron	9,306	14.8%
DMPA-Intramuscular injectable	9,306	18.5%
Copper-bearing IUD	6,443	13.2%
Male condoms (FP)	9,306	16.2%
Total	34,361	15.9%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO3-PRH	12,667	68%
Total	12,667	68%

Analysis

During the reporting period, the overall stock-out rate of FP commodities has decreased compared to the previous quarter. Stock-out rates at SDPs in supported provinces, i.e. KP, Punjab, Balochistan and Sindh for FP contraceptives (3-month injection, COC, condoms and Copper-T-380 A) decreased to 16 percent compared to 19 percent in the previous quarter. A decrease in stock-out rates was observed for 3-month injection (from 19 to 18 percent), COC (from 18 to 15 percent) and Copper-T-380A (from 24 to 13 percent). The stock-out rate for condoms remained unchanged at 16 percent compared to last quarter. However in KP province, overall stock-outs have increased from 9 percent previously to 13 percent this reporting quarter. At the provincial level (KP), stocks are inadequate for all products, resulting in an increase in the stock-out rate at the SDP level. The project team is working with the government to expedite the procurement process to address this issue.

Out of an average of 12,667 supported SDPs of Punjab, KP, Balochistan and Sindh provinces; 8,590 SDPs of stakeholders including PWD, DOH, LHW Program and PPHI reported into LMIS during the reporting quarter. The reporting rate for supported SDPs decreased from 73 last quarter to 68 percent in this reporting period. Lady Health Workers (LHW) program for Punjab was successfully interfaced this quarter and data are reported. However, a low reporting rate by DOH/LHW has contributed to decline in the overall reporting rate. Improving reporting rates for newly interfaced stakeholders would require commitment from the government and technical follow-up from GHSC-PSM.

Warehouse stock status and product losses

Country

Pakistan

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Subnational level 1	16	38%	0%	25%	38%
TO3-PRH	16	38%	0%	25%	38%
Subnational level 2	1,018	40%	31%	12%	17%
TO3-PRH	1,018	40%	31%	12%	17%
Total	1,034	40%	30%	12%	17%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

B2 Pakistan is a devolved country and has no central repository for stocks. GHSC-PSM is therefore not reporting at the Central level, but only at the sub-national Level 1 (provinces) and sub-national Level 2 (Districts). The overall stock according to plan for supported sites of KP, Punjab, Balochistan and Sindh remained unchanged at 25 percent, as compared to the previous quarter. Overall, the stocked according to plan rates for four key products varied in the reporting quarter as compared to the previous quarter: Stocked according to plan for condoms was 50 percent, COC 25 percent, and 3-month injection 25 percent. Copper-T 380 remained at 0 percent, as with the previous reporting quarter. The overall stocked according to plan for supported sites of KP, Punjab, Balochistan and Sindh was 12 percent during the reporting quarter, which has decreased from 19 percent previously.



Supply plans, innovations, and strategic activities

**Total Innovations
implemented
this quarter**

New technologies

3

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
TO3-PRH	New technologies	A new reporting module has been developed in the cLMIS to track performance on FP2020 indicators. In order to track FP2020 indicators (11a and 11b), PWD health facilities have been marked with appropriate facility type (Primary, Secondary and Tertiary) in cLMIS. A new tab "Track 20" has been introduced in LMIS under LMIS Stats, where authorized users can view the summary and details related to Track20. The URL for accessing this report is provided below: URL: http://lmis.gov.pk/track20.php
TO3-PRH	New technologies	DHIS2 is an open source system which is highly configurable and has built-in data warehousing and business intelligence. Per the request of the Punjab Health Department, GHSC-PSM has configured master data (sub set) and facility data entry. The Punjab Health department is currently testing this system and is planning to implement it in a pilot district. URL: int.lmis.gov.pk:6555
TO3-PRH	New technologies	To digitize doctors' HR-related data, GHSC-PSM has developed an HRKP application for Khyber Pakhtunkhwa which can be accessed from anywhere using the Internet. It is a simple application to view, edit/update and delete data.

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group

Supply Plan Submission Status

Analysis



C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details



Training for supply chain partners

C2. Number of people trained by sex

Sex	TO3-PRH	TO4-MCH	Total
Female	1		1
Male	3	4	7
Total	4	4	8

C2. Number of people trained by funding source and type

Type	TO3-PRH	TO4-MCH	Total
Cross-TO	4	4	8
Total	4	4	8

C2. Number of people trained by supply chain level

Supply Chain Level	TO3-PRH	TO4-MCH	Total
Subnational level 1	4	4	8
Total	4	4	8

C2. Number of people trained by technical area

Supply Chain Function	TO3-PRH	TO4-MCH	Total
Human Resources Capacity Development	4	4	8
Total	4	4	8

Analysis

From March 25-29, 2019, the University of Health Sciences (UHS), Lahore launched its Third Public Health Supply Chain Management (SCM) Short Certificate Course, with technical support from GHSC-PSM. A total of 16 participants (10 males and 6 females) were trained, out of which 8 participants (7 males and 1 female) were supported by GHSC-PSM. Course participants included representation from the Punjab health department, the private sector and faculty from the University of Peshawar.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO3-PRH	15.9%	34,361
Combined oral contraceptive with iron	14.8%	9,306
DMPA-Intramuscular injectable	18.5%	9,306
Copper-bearing IUD	13.2%	6,443
Male condoms (FP)	16.2%	9,306
Total	15.9%	34,361

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO3-PRH		
Combined oral methods	14.8%	9,306
Injectable contraceptives	18.5%	9,306

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO3-PRH	68%	12,667

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Subnational level 1	25%	38%	0%	38%	16
TO3-PRH	25%	38%	0%	38%	16
Subnational level 2	12%	17%	31%	40%	1,018
TO3-PRH	12%	17%	31%	40%	1,018
Total	12%	17%	30%	40%	1,034

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

Pakistan

FY Quarter

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO3-PRH	1	3	4
TO4-MCH		4	4
Total	1	7	8

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
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C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
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For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country

Rwanda 



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	3,207	1.3%
1st line adult ARV	545	1.1%
2nd line adult ARV	510	0.8%
Pediatric ARV	466	2.4%
First RTK	524	1.5%
Second RTK	440	1.6%
Viral load reagent	9	0.0%
Viral load consumable	9	0.0%
EID reagent	6	0.0%
EID consumable	6	0.0%
Male condoms (HIV)	586	0.9%
Female condoms (HIV)	106	1.9%
Total	3,207	1.3%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	2,669	1.2%
AL 6x1	506	1.4%
AL 6x2	551	1.1%
AL 6x3	550	1.3%
AL 6x4	562	0.9%
mRDT	500	1.4%
Total	2,669	1.2%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	3,577	1.2%
Combined oral contraceptive with iron	530	0.6%
DMPA-Intramuscular injectable	554	1.6%
1-rod implant	454	2.0%
2-rod implant	425	1.4%
Progestin only pills	486	0.6%
Copper-bearing IUD	268	1.5%
Calendar-based awareness methods	168	1.8%
Male condoms (FP)	586	0.9%
Female condoms (FP)	106	1.9%
Total	3,577	1.2%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	590	97%
TO2-Malaria	590	93%
TO3-PRH	590	97%
TO4-MCH	569	99%
Total	2,339	96%

Analysis

During FY19 Q2 in Rwanda, the average stockout rate at SDPs decreased from 2% to 1% (compared to Q1). Products categories such as ARVs, HIV Rapid test kits, ACTs and Malaria RDTs (TO2), Jadelle and Female condoms (TO3) have seen their stockout rate maintained between 0% to 2.5%.

SDP reporting rates continued to be high in Q2 FY19 across all task orders (>90 percent).

Warehouse stock status and product losses

Country

Rwanda



B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	25	9%	26%	48%	17%
TO1-HIV/AIDS	11		27%	64%	9%
TO2-Malaria	5		20%	40%	40%
TO3-PRH	9	22%	22%	44%	11%
Subnational level 1	659	1%	36%	33%	31%
TO1-HIV/AIDS	240	3%	31%	39%	28%
TO2-Malaria	150	0%	37%	35%	28%
TO3-PRH	269	3%	39%	22%	36%
Total	684	1%	35%	33%	30%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
TO1	Global	Transit	Damage	Other Pharma	\$221	\$4,168,930	0.01%
TO1	Global	Transit	Missing product	Condoms	\$131	\$2,545,914	0.01%
TO2	Global	Transit	Missing product	mRDTs	\$11,520	\$1,517,685	0.76%
TO3	Global	Transit	Damage	Combined oral contraceptive	\$2	\$1,004,604	0.00%

Indicator Analysis

- B2** The stock-out rate at the central level continued to be low (1 percent). A few observations include: for TO1, the most used first-line ARV, TDF/LAM/EFV, was understocked at the central level due to its phasing out to transition to TLD regimen. The product was stocked according to plan at SDPs. Pediatric ARVs and first-line RTKs were stocked according to plan at central and lower levels of the supply chain. EID reagents and consumables were understocked due increased consumption, yet were appropriately stocked at lower levels of the supply chain. For TO3, IUDs were understocked at MPPD due to an increased consumption as a result of the October Family planning awareness campaign, but were stocked according to plan at the district level.
- C7** Some small incidents of product damage or missing items within the Global Supply Chain are reported this quarter. All instances were minimal as a percentage of the goods shipped. The largest loss involved missing boxes of mRDTs. The order in question involved a complex split shipment, and the boxes appear to have gone missing while pallets were repackaged in transit. The incident team is taking actions to reinforce inspection and POD annotation guidance as a result.

Supply plans, innovations, and strategic activities

Country

Rwanda 

Total Innovations implemented this quarter

Type of innovation # of innovations

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
ARVs	Yes
Condoms	Yes
FP commodities	Yes
Lab (HIV diagnostics)	Yes
Malaria commodities	Yes
MCH commodities	Yes
RTKs	Yes

Analysis

Rwanda has submitted all required supply plans this quarter.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Female	17	2	8	5	32
Male	3	0	2	0	5
Total	20	2	10	5	37

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Cross-TO	20	2	10	5	37
Total	20	2	10	5	37

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Central	4	0	2	1	7
Subnational level 2	16	2	8	4	30
Total	20	2	10	5	37

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Strategy and Planning	20	2	10	5	37
Total	20	2	10	5	37

Analysis

▲
In Q2 FY19, a total of 37 people were trained during this quarter in Strategy and Planning (5 males and 32 females).

Molecular Instruments and HIV Tracer Products

Country

Rwanda ▼

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

100%

Analysis

Molecular instruments have remained functional and in good condition due to GHSC-PSM support and guidance.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/600 mg
2nd line adult ARV	Atazanavir/Ritonavir 300/100 mg
Pediatric ARV	Abacavir/Lamivudine 60/30 mg
First RTK	Determine
Second RTK	STAT-PAK
Tie-breaker RTK	Not reported
Viral load reagent	COBAS TAQMQRN HIV-1 TEST V2.0/HI2CAP
Viral load consumable	COBAS AMPILPREP (CAP48)-K TIPS
EID reagent	CAP/TaqMan HIV-1 Qualitative v2.0, 48 Test
EID consumable	Cobas AmpliPrep/TaqMan Specimen Pre-Extraction (SPEX) reagent, 5x78 mL

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	1.3%	3,207
1st line adult ARV	1.1%	545
2nd line adult ARV	0.8%	510
Pediatric ARV	2.4%	466
First RTK	1.5%	524
Second RTK	1.6%	440
Viral load reagent	0.0%	9
Viral load consumable	0.0%	9
EID reagent	0.0%	6
EID consumable	0.0%	6
Male condoms (HIV)	0.9%	586
Female condoms (HIV)	1.9%	106
TO2-Malaria	1.2%	2,669
AL 6x1	1.4%	506
AL 6x2	1.1%	551
AL 6x3	1.3%	550
AL 6x4	0.9%	562
mRDT	1.4%	500
TO3-PRH	1.2%	3,577
Combined oral contraceptive with iron	0.6%	530
DMPA-Intramuscular injectable	1.6%	554
1-rod implant	2.0%	454
2-rod implant	1.4%	425
Progestin only pills	0.6%	486
Copper-bearing IUD	1.5%	268
Calendar-based awareness methods	1.8%	168
Male condoms (FP)	0.9%	586
Female condoms (FP)	1.9%	106
Total	1.3%	8,761

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	0.0%	531
TO3-PRH		
Combined oral methods	0.6%	530
Injectable contraceptives	1.6%	554
Implantable contraceptives	0.0%	454
Progestin-only methods	0.6%	486

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	97%	590
TO2-Malaria	93%	590
TO3-PRH	97%	590
TO4-MCH	99%	569

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	48%	17%	26%	9%	23
TO1-HIV/AIDS	64%	9%	27%		11
TO2-Malaria	40%	40%	20%		5
TO3-PRH	44%	11%	22%	22%	9
Subnational level 1	33%	31%	36%	1%	600
TO1-HIV/AIDS	39%	28%	31%	3%	240
TO2-Malaria	35%	28%	37%	0%	150
TO3-PRH	22%	36%	39%	3%	269
Total	33%	30%	35%	1%	623

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

FY Quarter

Rwanda

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	17	3	20
TO2-Malaria	2	0	2
TO3-PRH	8	2	10
TO4-MCH	5	0	5
Total	32	5	37

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
ARVs	1	1
Condoms	1	1
FP commodities	1	1
Lab (HIV diagnostics)	1	1
Malaria commodities	1	1
MCH commodities	1	1
RTKs	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
19	100%

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country

South Sudan



Warehouse stock status and product losses

Country

South Sudan

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	18	6%	72%	17%	6%
TO1-HIV/AIDS	18	6%	72%	17%	6%
Total	18	6%	72%	17%	6%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

B2 Majority of products remained understocked at the central warehouse this quarter (72 percent), which is a result of large quantities of the products being pushed to facilities.

Supply plans, innovations, and strategic activities

Country

South Sudan 

Total Innovations implemented this quarter

Type of innovation # of innovations

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
ARVs	No
FP commodities	No

Analysis

GHSC-PSM South Sudan is now expected to submit supply plans for ARV and FP commodities; however, this quarter the supply plans were not updated. This is due to limited capacity, the fact that GHSC-PSM South Sudan will not have the funds to procure ARVs in FY2020 and that there is no commodity budget for FP.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Molecular Instruments and HIV Tracer Products

Country

South Sudan 

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

GHSC-PSM does not manage or support maintenance for any molecular instruments in South Sudan.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/600 mg
2nd line adult ARV	Lamivudine 300mg/Tenofovir 300mg (3TC+TDF), Tabs + LPV/r 200mg/50mg Tabs
Pediatric ARV	Lamivudine 30mg/Nevirapine 50mg /Zidovudine 60mg Tabs.
First RTK	HIV test kit determine 1+2 , 100 tests
Second RTK	HIV 1+2 Unigold test, Kit /20
Tie-breaker RTK	HIV 1+2 Unigold test, Kit /20
Viral load reagent	Not reported
Viral load consumable	Not reported
EID reagent	Not reported
EID consumable	Not reported

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

Country

FY Quarter

South Sudan

2019-Q2

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
Total		

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
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See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
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B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	17%	6%	72%	6%	18
TO1-HIV/AIDS	17%	6%	72%	6%	18
Total	17%	6%	72%	6%	18

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

C2. Number of people trained

Task Order	Total
Total	

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
ARVs	1	0
FP commodities	1	0

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
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For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country

Uganda



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	951	8.7%
1st line adult ARV	205	3.9%
2nd line adult ARV	120	5.8%
Pediatric ARV	125	14.4%
First RTK	166	3.6%
Second RTK	164	4.9%
Tie-breaker RTK	144	19.4%
Viral load reagent	1	0.0%
EID reagent	1	0.0%
RUTF	25	32.0%
Total	951	8.7%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	1,415	3.9%
AL inability to treat	510	2.4%
mRDT	499	4.0%
SP	406	5.7%
Total	1,415	3.9%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	179	6.1%
DMPA-Intramuscular injectable	179	6.1%
Total	179	6.1%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	218	99%
TO2-Malaria	657	97%
TO3-PRH	285	80%
Total	1,160	93%

Analysis

SDPs report directly in the web-based ARV Ordering and Reporting System (WAOS) that is managed by MoH. In the last quarter, the reporting rate for TO1 was 98.6 percent. This high reporting rate is sustained due to continuous support to the SDPs to submit their ARV orders/reports online. For TO2, the reporting rate decreased to 97 percent this quarter compared to 99 percent last quarter.

Stock-out rates for TO1 commodities have decreased by 3 percent this quarter compared to the previous one, from 12 to 9 percent. Stock-out rates remained at zero for both EID reagents and viral load reagents, the same as the previous quarter. First-line adult ARV - Tenofovir/Lamivudine/Efavirenz stock-out rates increased from 3 to 4 percent, and first-line pediatric ARVs increased from 12 to 14 percent. There has been an overall reduction of stock-outs rates in TO2 commodities, from 10 percent in Q1 to 4.8 percent in Q2. More specifically, ACT stock-outs decreased by 8 percent, 10 to 2 percent; RDT stock-outs decreased from 10 to 4 percent; SP decreased by 7 percent, from 13 to 6 percent; and Depo stock-outs were 6 percent this quarter compared to 31 percent the previous quarter. Joint Medical Store (JMS) reviewed the list of SDPs that had qualified to receive FP commodities based on Ministry of Health accreditation. This led to the dropping of sites that were not receiving RH/FP commodities from JMS and reporting stock-outs.

Warehouse stock status and product losses

Country

Uganda

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	84	3%	21%	27%	50%
TO1-HIV/AIDS	36		17%	42%	42%
TO2-Malaria	18	6%		11%	83%
TO3-PRH	30	3%	40%	27%	30%
Total	84	3%	21%	27%	50%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
TO2	Global	Transit	Damage	Severe Malaria Meds	\$12	\$4,003,243	0.00%

Indicator Analysis

B2 Stock status observations in storage sites are provided by the MOH and/or storage sites every two months. Overall commodities stocked according to plan decreased from 34 percent the previous quarter to 26 percent in FY19Q2. Also, overall 44 percent of commodities are overstocked. Furthermore, there is no risk of expiries. TO1 commodities that are stocked according to plan decreased from 57 percent last quarter to 42 percent this quarter. This may be attributed to an increase in overstocks from last quarter of the tie-breaker RTK, all ARVs and viral load reagents. TO2 commodities stocked according to plan decreased from 17 percent last quarter to 11 percent this quarter, likely because 83 percent of TO2 commodities were overstocked (though without risk of expiry). Future shipments of ACTs have been delayed and others have been proposed to be cancelled to mitigate this overstock situation. The percent of TO3 commodities stocked according to plan decreased from 24 percent last quarter to 21 percent this quarter, mainly because of understocks of 1 rod Implants and Levonorgestrel 30 mcg 35 Tablets/Cycle. The percentage of stocked out commodities for all TOs averaged 3% with no stockout reported for TO1 commodities in the quarter. This means commodities are available and individuals are not going without treatment.

C7 This quarter, there was a damaged shipment resulting in the loss of seven vials of injectable artesunate. List price is \$1.7.

Supply plans, innovations, and strategic activities

Total Innovations implemented this quarter

New approaches **4**

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
Crosscutting	New approaches	MONTHLY STOCK STATUS REVIEW MEETINGS: GHSC-PSM supported monthly stock status review meetings attended by JMS, MOH and GHSC-PSM. The meetings focused on mitigating risk of overstocks and understocks by ensuring proactive measures are put in place.
Crosscutting	New approaches	PARTICIPATION IN ARTESUNATE RATIONING: GHSC-PSM actively participated in the rationing of artesunate to mitigate raising consumption with no evidence of increased severe malaria cases. Through JMS, GHSC-PSM ensured that all orders were reviewed and matched with the trend in severe malaria cases at each SDP as well as stock balances and level of SDP before artesunate was distributed. Consumption has decreased over time, and ordering has subsequently improved to match severe cases.
Crosscutting	New approaches	TECHNICAL REPRESENTATIVES' STRATEGY: GHSC-PSM reviewed and modified the technical representative (TR) strategy implemented by its sub-contractor Joint Medical Store(JMS). The strategy was revised to reduce emphasis on data collection to focus on on-site support, ordering/reporting by service delivery points (SDPs), and to address stock imbalances. In addition, the strategy expanded sites receiving support to include malaria and FP sites in addition to HIV sites.
TO3-PRH	New approaches	TRANSITION OF FP/RH COMMODITIES FROM UHMG TO JMS: GHSC-PSM ensured a seamless transition of FP/RH commodities from Uganda Health Marketing Group (UHMG) to JMS following a "Stop Work Order." This was made possible by GHSC-PSM's collaboration and coordination with JMS, UHMG and the local USAID Mission.

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
ARVs	Yes
Condoms	Yes
FP commodities	Yes
Lab (HIV diagnostics)	Yes
Malaria commodities	Yes
RTKs	Yes
VMMC	Yes

Analysis

Uganda has submitted all required supply plans this quarter.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Molecular Instruments and HIV Tracer Products

Country

Uganda

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/600 mg
2nd line adult ARV	Lopinavir/Ritonavir 200/50 mg
Pediatric ARV	Zidovudine/Lamivudine/Nevirapine 60/30/50 mg
First RTK	Determine
Second RTK	STAT-PAK
Tie-breaker RTK	Bioline
Viral load reagent	COBAS Taqman, CAP/CTM HIV V2.0 Quantitative test, 48 test
Viral load consumable	DBS – VL collection kit
EID reagent	COBAS Taqman Ampliprep HIV-1 Qualitative test, 48 test
EID consumable	Dry blood spot (DBS) – EID collection kit

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	8.7%	951
1st line adult ARV	3.9%	205
2nd line adult ARV	5.8%	120
Pediatric ARV	14.4%	125
First RTK	3.6%	166
Second RTK	4.9%	164
Tie-breaker RTK	19.4%	144
Viral load reagent	0.0%	1
EID reagent	0.0%	1
RUTF	32.0%	25
TO2-Malaria	3.9%	1,415
AL inability to treat	2.4%	510
mRDT	4.0%	499
SP	5.7%	406
TO3-PRH	6.1%	179
DMPA-Intramuscular injectable	6.1%	179
Total	5.9%	2,545

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	2.4%	510
TO3-PRH		
Injectable contraceptives	6.1%	179

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	99%	218
TO2-Malaria	97%	657
TO3-PRH	80%	285

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Total					

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

Uganda

FY Quarter

2019-Q2

C2. Number of people trained

Task Order	Total
Total	

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
ARVs	1	1
Condoms	1	1
FP commodities	1	1
Lab (HIV diagnostics)	1	1
Malaria commodities	1	1
RTKs	1	1
VMMC	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

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Country M&E Indicator Performance

Country

Vietnam



Warehouse stock status and product losses

Country

Vietnam

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	6		33%	67%	
TO1-HIV/AIDS	6		33%	67%	
Total	6		33%	67%	

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

B2 Stocked according to plan rates for first-line Adult ARVs decreased from 67 percent last quarter to 33 percent this quarter. This decrease is being driven by a shift in first-line ARV choices. Currently, TLE600 is being transitioned to TLE400. Thus, the central level stocks of TLE600 are quite low as the stock is being pushed through the system. Next quarter, the first-line Adult ARV will be TLE400, and some overstock is expected as uptake slowly increases for the new regimen. The most used second-line ARV is 100 percent stocked according to plan at the central level, up from 67 percent last quarter.

Supply plans, innovations, and strategic activities

Country

Vietnam 

Total Innovations implemented this quarter

New products **1**

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description
TO1-HIV/AIDS	New products	EmtricitabineTenofovir 200/300 mg is a newly imported product this quarter. Thanks to the availability of this medicine, PEPFAR has been successfully implementing PrEP at a large scale, in 11 provinces in Vietnam, enabling PrEP clients to access free medicine.

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
ARVs	Yes

Analysis

Vietnam has submitted all required supply plans this quarter.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	Total
Female	421	421
Male	266	266
Total	687	687

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	Total
TO-specific	687	687
Total	687	687

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	Total
Subnational level 1	147	147
SDP	540	540
Total	687	687

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	Total
Forecasting and Supply Planning	687	687
Total	687	687

Analysis

As part of GHSC-PSM's support to the Government of Vietnam under Social Health Insurance (SHI), this quarter the project conducted 9 Training of Trainers (ToT) to disseminate tools and approaches for demand quantification. This work focused on ARVs but included other medicines that are also covered under SHI.

Molecular Instruments and HIV Tracer Products

Country

Vietnam

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/600 mg
2nd line adult ARV	Lopinavir/Ritonavir 200/50 mg
2nd line adult ARV	Not reported
First RTK	Not reported
Second RTK	Not reported
Tie-breaker RTK	Not reported
Viral load reagent	Not reported
Viral load consumable	Not reported
EID reagent	Not reported
EID consumable	Not reported

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

Country

FY Quarter

Vietnam

2019-Q2

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
Total		

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
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See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
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B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	67%		33%		6
TO1-HIV/AIDS	67%		33%		6
Total	67%		33%		6

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	421	266	687
Total	421	266	687

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
ARVs	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
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For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

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Country M&E Indicator Performance

Country

Zambia 



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	6,931	8.9%
1st line adult ARV	364	3.3%
2nd line adult ARV	409	4.9%
Pediatric ARV	375	9.6%
First RTK	1,846	4.6%
Second RTK	1,828	4.0%
Viral load reagent	10	0.0%
EID reagent	11	9.1%
Male condoms (HIV)	1,425	18.0%
Female condoms (HIV)	663	19.8%
Total	6,931	8.9%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	10,142	20.8%
AL 6x1	1,731	26.2%
AL 6x2	1,727	16.3%
AL 6x3	1,739	13.2%
AL 6x4	1,726	18.8%
mRDT	1,679	9.2%
SP	1,540	43.2%
Total	10,142	20.8%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
TO3-PRH	8,004	31.7%
Combined oral contraceptive with iron	1,632	34.9%
NET-En Injectable	907	40.7%
DMPA-Intramuscular injectable	1,371	20.8%
1-rod implant	403	40.9%
2-rod implant	1,029	37.9%
Progestin only pills	562	65.8%
Copper-bearing IUD	12	25.0%
Male condoms (FP)	1,425	18.0%
Female condoms (FP)	663	19.8%
Total	8,004	31.7%

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	2,153	91%
TO2-Malaria	2,214	92%
TO3-PRH	2,214	92%
TO4-MCH	2,214	92%
Total	8,795	91%

Analysis

Overall stockouts were up this quarter, at 21%, with the highest increases in family planning (from 24 to 32%) and malaria commodities (from 15 to 21%). Contributing factors include transportation challenges in last mile distribution by some district health offices due to funding shortages, low order fill rates by Zambia's Medical Stores Limited (MSL) at under 40%, and increased consumption during the peak malaria season. The project, under the direction of the USAID Mission, is working out an emergency plan to mitigate the current situation, including scale-up of 3PL services to increase the number of drop-off points.

Patients were able to access malaria treatments due to the low "inability to treat" rate of 2%. Malaria product stockouts were driven by SP (43% of SDPs stocked out), which is not procured by GHSC-PSM. Though SP has been centrally stocked out, the MOH has now secured funding for the procurement of 500,000 bottles of 1,000 tablets this fiscal year to alleviate stockouts. Additionally, GHSC-PSM Zambia generated and shared a supply plan for SP with the MOH, including recommendations for managing the pipeline to maintain a steady flow of the commodity. The MOH has adopted the supply plan, and shipments are expected to arrive in the coming months.

Regarding HIV/AIDS commodities, stockouts continued to hover at 9%, largely driven by the TLD transition and therefore not shortages of ARVs overall. However, transport challenges did affect the most-used pediatric ARV, Lopinavir 80mg/Ritonavir 20mg, in some provinces (10% of sites stocked out).

Stockouts of family planning products were affected by central stockouts of IUDs, female condoms, 1- and 2-rod implants, and Norethisterone, and further exacerbated by transportation challenges. The stock is also affected by the low demand for implants (and relatively higher demand for injectables) and female condoms, coupled with a lack of staff trained in implant insertion in a majority of rural sites. The MOH is working with partners to train more staff. Stockouts of injectables, on the other hand, may be due to increased consumption rates. Stockouts of oral contraceptives and male condoms may be also due to MSL's non-adherence to the distribution schedule in several provinces and increased consumption. An MOH order of Norethisterone in April will alleviate central stockouts.

This quarter saw continued high performance in the LMIS reporting rate, with rates for all health elements (including MNCH) coming in at or above 91%. Consistently high reporting rates are a result of USG and partner investments in logistics system capacity building, and eLMIS deployment and training in system use. GHSC-PSM collaborates with the AIDSFree project in this arena, largely by gathering and tracking user feedback at the district level that is discussed during fora such as the change control board technical working group meetings.

Warehouse stock status and product losses

Country

Zambia

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	72	11%	27%	38%	24%
TO1-HIV/AIDS	27	7%	15%	37%	41%
TO2-Malaria	18	11%	22%	61%	6%
TO3-PRH	27	19%	41%	19%	22%
Total	72	11%	27%	38%	24%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

B2 Across health elements, stocking according to plan increased from 26 to 38 percent at the central medical store, with the greatest improvement coming from malaria commodities (from 39 to 61 percent stocked according to plan). HIV/AIDS commodities were most likely to be either overstocked (41 percent) or stocked according to plan (37 percent). The understocking of some family planning products is expected to be alleviated with several imminent order deliveries. The TLD TWG has come up with a new transition model to include specific female groups in addition to the male target population to increase uptake. The project will continue to monitor pipeline and issues trends for all overstocked products and guide the receipt of shipments to avoid expiries. Additionally, the project met with the MOH and malaria partners recently to discuss funding gaps and hopes to see commitments to address them.

Supply plans, innovations, and strategic activities

Total Innovations implemented this quarter

Type of innovation # of innovations

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
ARVs	Yes
Condoms	Yes
FP commodities	Yes
Lab (HIV diagnostics)	Yes
Malaria commodities	Yes
MCH commodities	Yes
RTKs	Yes

Analysis

All required quarterly supply plans were developed and submitted to the home office forecasting and supply planning team this quarter.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details 

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Female	80	9	21	4	114
Male	81	9	21	5	116
Total	161	18	42	9	230

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Cross-TO	161	18	42	9	230
Total	161	18	42	9	230

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Central	15	1	4	1	21
SDP	146	17	38	8	209
Total	161	18	42	9	230

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	TO2-Malaria	TO3-PRH	TO4-MCH	Total
Human Resources Capacity Development	161	18	42	9	230
Total	161	18	42	9	230

Analysis

During this reporting period, GHSC-PSM Zambia conducted in-service integrated logistics systems training and trained 230 people (114 female, 116 male). Of these, 21 lecturers from Biomedical Sciences Schools were trained and certified competent as trainers in the management of laboratory commodities and HIV test kit logistics systems. The remainder were in-service integrated trainings in essential medicines and HIV test kit logistic systems, and essential medicines and ARV logistics systems. The training focused on enhancing participant skills in assessing stock status for health commodities, reporting and ordering, receiving, and storage according to the SOP manuals.

Molecular Instruments and HIV Tracer Products

Country

Zambia 

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

100%

Analysis

This is the first quarter in which Zambia is reporting on the functionality of GHSC-PSM-supported molecular instruments. One hundred percent (31 of 31) of GHSC-PSM-supported molecular instruments remained functional during the quarter. The project’s rental agreement with vendors for the Hologic Panther and Roche machines was just put into effect. It aims to improve resource utilization by significantly reducing the cost per test and by emphasizing the benefits of the reagent rental approach over outright equipment purchases. From running approximately 300 samples per 8-hour shift, the Hologic Panthers are now able to run 800 samples per 8-hour shift.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	TLE 300/300/600mg
2nd line adult ARV	Lopinavir 200mgs/Ritonavir 50mgs
Pediatric ARV	Lopinavir 80mgs/Ritonavir 20mgs
First RTK	Determine
Second RTK	Bioline
Tie-breaker RTK	Not reported
Viral load reagent	Cobas Taqman 48/96: KIT CAP-G /CTM HIV-1 v2.0 Quantitative, 48 Tests
Viral load consumable	Not reported
EID reagent	Cobas Taqman 48/96:HIV-1 Qualitative Test v2.0, 48 Tests
EID consumable	Not reported

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	8.9%	6,931
1st line adult ARV	3.3%	364
2nd line adult ARV	4.9%	409
Pediatric ARV	9.6%	375
First RTK	4.6%	1,846
Second RTK	4.0%	1,828
Viral load reagent	0.0%	10
EID reagent	9.1%	11
Male condoms (HIV)	18.0%	1,425
Female condoms (HIV)	19.8%	663
TO2-Malaria	20.8%	10,142
AL 6x1	26.2%	1,731
AL 6x2	16.3%	1,727
AL 6x3	13.2%	1,739
AL 6x4	18.8%	1,726
mRDT	9.2%	1,679
SP	43.2%	1,540
TO3-PRH	31.7%	8,004
Combined oral contraceptive with iron	34.9%	1,632
NET-En Injectable	40.7%	907
DMPA-Intramuscular injectable	20.8%	1,371
1-rod implant	40.9%	403
2-rod implant	37.9%	1,029
Progestin only pills	65.8%	562
Copper-bearing IUD	25.0%	12
Male condoms (FP)	18.0%	1,425
Female condoms (FP)	19.8%	663
Total	21.2%	22,989

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	2.4%	1,837
TO3-PRH		
Combined oral methods	34.9%	1,632
Injectable contraceptives	6.6%	1,535
Implantable contraceptives	6.8%	1,138
Progestin-only methods	65.8%	562

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	91%	2,153
TO2-Malaria	92%	2,214
TO3-PRH	92%	2,214
TO4-MCH	92%	2,214

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	38%	24%	27%	11%	66
TO1-HIV/AIDS	37%	41%	15%	7%	27
TO2-Malaria	61%	6%	22%	11%	18
TO3-PRH	19%	22%	41%	19%	27
Total	38%	24%	27%	11%	66

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

Zambia

FY Quarter

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	80	81	161
TO2-Malaria	9	9	18
TO3-PRH	21	21	42
TO4-MCH	4	5	9
Total	114	116	230

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
ARVs	1	1
Condoms	1	1
FP commodities	1	1
Lab (HIV diagnostics)	1	1
Malaria commodities	1	1
MCH commodities	1	1
RTKs	1	1

C10. HIV molecular instrument functionality

# GHSC-PSM-supported instruments	% of instruments that functional for the entire period
31	100%

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.

GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management

FY2019 Quarter 2

January - March 2019

Country M&E Indicator Performance

Country

Zimbabwe



Service Delivery Point Stockouts and Reporting Rates

In GHSC-PSM-supported regions

B1. Stockout rate at service delivery points - HIV/AIDS

Task Order	# SDP stock observations	Stockout rate
TO1-HIV/AIDS	12,595	11.8%
1st line adult ARV	1,446	1.2%
2nd line adult ARV	1,388	6.8%
Pediatric ARV	1,363	19.4%
First RTK	1,664	5.7%
Second RTK	1,664	4.6%
Tie-breaker RTK	1,664	47.9%
Viral load reagent	8	0.0%
EID reagent	3	0.0%
Male condoms (HIV)	1,711	2.7%
Female condoms (HIV)	1,684	5.8%
Total	12,595	11.8%

B1. Stockout rate at service delivery points - Malaria

Task Order	# SDP stock observations	Stockout rate
TO2-Malaria	8,790	9.5%
AL 6x1	1,603	9.7%
AL 6x2	1,597	17.7%
AL 6x3	1,600	10.0%
AL 6x4	1,639	6.3%
mRDT	1,634	3.1%
SP	717	11.4%
Total	8,790	9.5%

B1. Stockout rate at service delivery points - Family Planning

Task Order	# SDP stock observations	Stockout rate
Total		

B3. LMIS reporting rate

Task Order	Total # of SDPs required to report	Reporting rate
TO1-HIV/AIDS	1,806	79%
TO2-Malaria	1,705	80%
Total	3,511	80%

Analysis

Zimbabwe saw a slight increase the overall stock-out rate for HIV commodities due to a few factors. Deliveries were delayed due to the warehouse closing operations in January for the annual stock take and MIS upgrade. There were also low central stocks of pediatric ARVs, resulting in rationing for sites. Male condoms are also in short supply, as recently arrived stock is awaiting testing by the Medicines Control Authority of Zimbabwe (MCAZ). GHSC-PSM is working with Natpharm and MCAZ to press for expedited testing. On the malaria side, the overall stock-out rate remained fairly constant, with an improvement in SP stock availability and small declines among other products. Delays in shipments of RDTs resulted in low stocks dispatched to sites. GHSC-PSM continues to engage in the ZAPS Task Work Group on a monthly basis to support supply chain and distribution issues. The project's seconded staff also contribute to the production of weekly reports containing summaries of ZAPS operational issues.

Zimbabwe's reporting rate relies on ordering teams dispatched to the site level. These teams were delayed this quarter due to competing activities in the month of January, notably the Natpharm annual stock take and the ERP upgrade. The reporting rate was also affected by fuel price increase demonstrations and protests in mid-January, which led to shutdowns across the country.

Warehouse stock status and product losses

Country

Zimbabwe

B2. Stocked according to plan

Supply Chain Level	Total Observations	Stocked out	Understocked	Stocked according to plan	Overstocked
Central	16	0%	31%	19%	50%
TO1-HIV/AIDS	10	0%	40%	20%	40%
TO2-Malaria	6	0%	17%	17%	67%
Total	16	0%	31%	19%	50%

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

TO	Level	Site of Loss	Type of Loss	Product Type	Loss Value	Loss Denominator	Loss %
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Indicator Analysis

B2	Stocked according to plan rates remained constant, with an increase in overstocks and decrease in understocks. Understocked commodities included first-line adult ARVs (TLE400), first RTKs, tie-breaker RTKs, male condoms and malaria RDTs. Shipments of ARVs, RTKs and mRDTs are in the pipeline, pending arrival. Male condoms have arrived in the country but are pending testing prior to becoming available for distribution.
C7	No product losses to report this quarter.



Supply plans, innovations, and strategic activities

Total Innovations implemented this quarter

Type of innovation # of innovations

C1. Innovations implemented this quarter

Task Order	Type of innovation	Description

B6. Quarterly supply plan submissions to GHSC-PSM HQ

Product Group	Supply Plan Submission Status
ARVs	Yes
Condoms	Yes
Lab (HIV diagnostics)	Yes
Malaria commodities	Yes
RTKs	Yes
VMMC	Yes

Analysis

Zimbabwe conducts supply plan updates on a semiannual basis. All required supply plans were submitted this quarter as expected, based on the quantification and forecasting exercise held in February.

C11. Supply chain policies, regulations, strategies or SOPs developed or updated with GHSC-PSM assistance

Details

Training for supply chain partners

C2. Number of people trained by sex

Sex	TO1-HIV/AIDS	Total
Female	15	15
Male	11	11
Total	26	26

C2. Number of people trained by funding source and type

Type	TO1-HIV/AIDS	Total
TO-specific	26	26
Total	26	26

C2. Number of people trained by supply chain level

Supply Chain Level	TO1-HIV/AIDS	Total
Central	26	26
Total	26	26

C2. Number of people trained by technical area

Supply Chain Function	TO1-HIV/AIDS	Total
Transportation and Distribution	26	26
Total	26	26

Analysis

Twenty-six employees of the Ministry of Health and Child Care (MOHCC) were trained in the national lab distribution system this quarter.

Molecular Instruments and HIV Tracer Products

Country

Zimbabwe

C10. Percentage of GHSC-PSM managed molecular instruments that remained functional for the entire reporting period

Analysis

GHSC-PSM does not manage or support maintenance for any molecular instruments in Zimbabwe.

HIV Tracer Products

Tracer Product	Exact Product Name
1st line adult ARV	Tenofovir/Lamivudine/Efavirenz 300/300/400 mg
2nd line adult ARV	Atazanavir/Ritonavir 300/100 mg
Pediatric ARV	Abacavir/Lamivudine 120/60 mg
First RTK	Determine
Second RTK	Chembio
Tie-breaker RTK	INSTI
Viral load reagent	Roche Ampliprep Automated kits VL
Viral load consumable	Not reported
EID reagent	Roche Ampliprep Automated kits EID
EID consumable	Not reported

HIV tracer products are selected based on the most-used commodities in each country. These products can change from quarter to quarter as products transition and consumption changes. The items listed here will refer to the products used as tracers for the current quarter. Data presented for previous reporting periods will refer to the most-used products *at that time*, which may differ from the current tracer item.

Complete Results and Denominators

B1. Stockout rate at service delivery points (GHSC-PSM-supported regions)

Task Order	Stockout rate	# SDP stock observations
TO1-HIV/AIDS	11.8%	12,595
1st line adult ARV	1.2%	1,446
2nd line adult ARV	6.8%	1,388
Pediatric ARV	19.4%	1,363
First RTK	5.7%	1,664
Second RTK	4.6%	1,664
Tie-breaker RTK	47.9%	1,664
Viral load reagent	0.0%	8
EID reagent	0.0%	3
Male condoms (HIV)	2.7%	1,711
Female condoms (HIV)	5.8%	1,684
TO2-Malaria	9.5%	8,790
AL 6x1	9.7%	1,603
AL 6x2	17.7%	1,597
AL 6x3	10.0%	1,600
AL 6x4	6.3%	1,639
mRDT	3.1%	1,634
SP	11.4%	717
Total	10.8%	21,385

B1. Composite stockout rates

Task Order	Stockout rate	# of SDPs that reported
TO2-Malaria		
AL inability to treat	1.8%	1,644

See "Indicator Details" for B01 at the end of this annex for more detail about composite stockouts.

B3. SDP reporting rate to LMIS (GHSC-PSM-supported regions)

Task Order	Reporting rate	Total # of SDPs required to report
TO1-HIV/AIDS	79%	1,806
TO2-Malaria	80%	1,705

B2. Stocked according to plan at storage sites

Supply Chain Level	Stocked according to plan	Overstocked	Understocked	Stocked out	Total Stock Observations
Central	19%	50%	31%	0%	16
TO1-HIV/AIDS	20%	40%	40%	0%	10
TO2-Malaria	17%	67%	17%	0%	6
Total	19%	50%	31%	0%	16

B1 and B2 denominator note: For countries that report male and female condoms under both B1 and B2, total stock observations will be equal to the sum of all observations (i.e. SDPs that reported) for all tracer products, minus one set of observations for condoms.

Country

Zimbabwe

FY Quarter

2019-Q2

C2. Number of people trained

Task Order	Female	Male	Total
TO1-HIV/AIDS	15	11	26
Total	15	11	26

B6. Quarterly supply plan updates

Product Group	# of supply plans required	# submitted
ARVs	1	1
Condoms	1	1
Lab (HIV diagnostics)	1	1
Malaria commodities	1	1
RTKs	1	1
VMMC	1	1

C10. HIV molecular instrument functionality

GHSC-PSM-supported instruments % of instruments that functional for the entire period

For complete results on innovations (C1), strategy, policy, and regulation activities (C11), and product losses (C7a and C7b), please see the specific pages for those indicators.