

# SOUTHERN Pulse



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## WELCOME

Can we imagine a world where every child at risk of malaria sleeps under a long-lasting insecticidal bed net? Or world where antiretroviral therapy is widely available? Welcome to the fourth issue of our Southern Africa quarterly newsletter. In this issue, we share some of the project’s success stories, demonstrating how collaboration is critical for developing long-term and sustainable supply chains capable of delivering essential supplies to those in need. Our work does not end with delivery but continuously working on solutions that are both environmentally and economically sustainable and socially acceptable.

Also check out in this issue how Lesotho and Namibia have surpassed HIV epidemic control targets as the project consistently collaborates with Ministries of Health in the various countries, providing technical assistance to help deliver high-impact, long-term HIV prevention and treatment services to save lives. Enjoy the read!

## BOTSWANA



## BOTSWANA’S CENTRAL MEDICAL STORES AND DISTRICT HEALTH MANAGEMENT TEAMS JOIN HANDS TO IMPROVE THE STATUS OF LMIS REPORTING

On the 27th and 28th of January 2022, the Ministry of Health Wellness (MoHW) and Central Medical Stores (CMS), in collaboration with the GHSC-PSM, held a Customer and Logistics Management Information System (LMIS) Analysis Workshop. The primary purpose of the workshop was for CMS to provide updates on its operations challenges, and to solicit feedback from customers on the way forward including LMIS reporting.

The level of active engagement of strategic partners and customers determines the sustainability of supply chain management. The more these actors are involved, the more a culture of responsiveness and ownership to the supply plan is concerned, resulting in the development of sustainability within supply chain management systems.

The workshop included 71 participants from all 18 District Health Management Teams (DHMTs), comprised of pharmacy and laboratory technicians, as well as representatives from MOHW and CMS Management, the Botswana Post (a contracted warehousing and distribution partner to CMS), among others. During the workshop health facilities with outstanding performance on LMIS reporting were recognized and applauded while those that were not performing well were encouraged to implement measures to improve with the technical assistance received from the GHSC-PSM.

In addition to the CMS Customer and LMIS Analysis, there was a discussion of the new COVID-19 LMIS report and updates on stock status at the district and central levels; the common challenges associated with COVID-19 LMIS reporting and discussion of improvement strategies; the launch and demonstration of the Supply Chain Dashboard and contribution to data visibility and use within the supply chain functions; and the GHSC-PSM support towards strengthening the supply chain functions. Among the issues raised during the workshop discussions were the following:

- a lack of reporting by some service delivery points, which was linked to an ever-increasing workload for pharmacy personnel, particularly during COVID-19.
- a lack of timeliness in LMIS reporting, which is a barrier to decision making, particularly for COVID-related commodities and vaccines, due to poor internet connectivity in some health facilities; and
- incomplete reporting, primarily due to a lack of other commodities in the current LMIS reporting template.

Several strategies for addressing the challenges of LMIS reporting were proposed, with lead persons assigned from the GHSC-PSM, CMS, DHMTs, and Logistics Committee. These strategies include technical assistance provided by GHSC-PSM through the hiring and deployment of Site Monitors to the 18 DHMTs, fast-tracking internet connectivity provided by CMS, and facilitating district-level adoption of supply chain data visibility platforms such as the Supply Chain Dashboard to improve quality supply chain decision making. GHSC-PSM continued to pledge technical assistance by actively participating in support and mentorship visits to low-performing districts.

The level of active engagement of strategic partners and customers determines the sustainability of supply chain management. The more these actors are involved, the more a culture of responsiveness and ownership to the supply plan is concerned, resulting in the development of sustainability within supply chain management systems. Based on this context, Botswana's Central Medical Stores and GHSC-PSM continue to collaborate with CMS Customers and Strategic Partners to ensure the quality distribution of health commodities to end-users.



## MALAWI

# STRENGTHENING OF IN-COUNTRY MEDICINE AND HEALTH COMMODITY MANAGEMENT SYSTEMS IN MALAWI WITH SUPPORT FROM GHSC-PSM



Annual Quantification Workshop, March 2020, Malawi Photo by GHSC-PSM

The GHSC project assisted the Ministry of Health in establishing and institutionalization of a fully functional national forecasting and supply planning (FASP) team, as well as training them in the use of various FASP tools. The project financially and technically supports various individual disease programs (HIV & AIDS, malaria, FP/RH, MNCH, COVID-19, and so on) to carry out these activities, while HTSS provides overall coordination and oversight through the national FASP team. Furthermore, the project assists HTSS in training district and disease program staff to increase capacity in carrying out these activities by utilizing the various existing TORs, training manuals, and guidelines.

Since 2020, the exercise has been facilitated by in-country MOH staff, without the need for external technical assistance (TA), indicating an increase in local capacity. Staff from key MOH departments and programs at the district and central levels, as well as various health facilities, are involved in the quantification exercise, including program managers, medical officers, logistics professionals, pharmacists, laboratory supervisors, representatives from the national public health community, the Central Medical Stores Trust (CMST), and international development partners. The involvement of district staff ensures that they prioritize which commodities to procure, thereby increasing ownership of the outputs; whereas the involvement of central level staff increases MOH's oversight capacity to ensure adequate stock availability at both the central and last-mile (SDP levels). This approach has also strengthened the MOH's capacity to conduct forecasting and supply planning independently (without the need for external technical assistance), thereby contributing to sustainability.

Furthermore, as part of ongoing efforts to improve commodity forecasting and supply planning, the project continuously supports the various Units of MOH in the development of analytical tools. Over the last few years, the project has assisted the MOH with supply planning using the Pipeline tool and although this has greatly increased MOH's capacity, there were some technical gaps with the tool, such as real-time visibility. Earlier this year, the project leveraged technological advancements and introduced a new and advanced online Quantification Analytics Tool (QAT) which streamlines the process of reviewing supply plans and provides near real-time visibility. PSM has since trained MOH staff on the use of this tool in monitoring, reviewing, and updating quarterly supply plans. This has aided MOH in making resupply decisions, ensuring the availability of various commodities at the last mile throughout.

The Ministry of Health is now able to independently conduct forecasting and supply planning (without external technical support), thereby contributing to sustainability", says Chikhulupiliro Chimwaza, MOH representative.

Supply planning and forecasting have since been institutionalized quarterly and annually. According to Chikhulupiliro Chimwaza, a representative from the Ministry of Health, “MOH is now able to independently conduct forecasting and supply planning (without external technical support), thereby contributing to sustainability”. Annual forecasting for essential medicines is now district-based to allow for greater participation and ownership of results by the districts, in line with decentralization policy.

Since then, collaborative efforts with various development partners have strengthened MOH capacity in decision making and oversight in commodity forecasting and supply planning, facilitating resource mobilization and procurement of various commodities and other essential medicines and medical supplies, including COVID-19 commodities; increased visibility into commodity management, ensuring adequate and timely availability. Chikhulupiliro Chimwaza, MOH representative.

The various interventions have aided in the identification of commodity gaps and the development of procurement plans for additional commodities.

The FASP technical support to MOH, together with other various system strengthening efforts by the GHSC-PSM project and other development partners, have strengthened in-country medicine and health commodity management systems in Malawi. This, in turn, has contributed to in-country stable availability for most products over the years, as well as low stock-out rates for most products at/or below the 5% target, and sustained capacity of the MOH in improving in-country commodity security.



## ANGOLA

# PHARMACOVIGILANCE AND SURVEILLANCE TRAINING ON ADVERSE EVENTS POST COVID -19 VACCINATION

There has been a rapid uptake of COVID-19 vaccinations in Angola, and this necessitated an urgent need for post-vaccination population monitoring. The Angolan Ministry of Health (MOH) made certain that post-vaccination surveillance sites were established at each vaccination point. The presence of surveillance sites provided the population with the assurance that the Ministry of Health Angola was actively monitoring events following vaccination.

There was a need for trained technicians to respond to adverse events that occurred after immunization (AEFI). The project collaborated with the Ministry of Health to develop training guides for `Surveillance of Adverse events post-vaccination by contracting a Pharmacovigilance specialist consultancy. GHSC-PSM and the consultancy trained 23 Master trainers on pharmacovigilance and COVID-19 related topics. The training was extensive in covering topics related to Covid-19 vaccines, rumors, means of communications, and notifying cases. The 23 National level master trainers further went on to train 338 technicians across 17 provinces.



Pharmacovigilance Master Training in Angola.  
Photo by GHSC-PSM

Technicians who participated in the training included provincial and municipal supervisors as well as health care workers. This was done to ensure that technicians were available in every province and municipality across the country to respond to adverse events following vaccination. Training guides were provided to provincial and municipal trainers for them to expand training in their respective areas. Post-tests revealed that the technicians' knowledge of surveillance and Covid-19 topics had improved significantly.

Since the completion of the training on post-vaccination surveillance, the notification system has been strengthened by an increase in technicians notifying AEFIs. Technicians have gained confidence in filling out the notification form and responding to AEFI concerns. To ensure that surveillance sites are operational, the GHSC-PSM team assisted the MOH in supervising vaccination points. The supervision aimed to ensure that the vaccination points were adequately staffed and operational, and that established procedures at the vaccination centers were followed.

The Causality Committee, established by the Minister of Health, investigates severe AEFIs. GHSC-PSM, in collaboration with WHO, has been assisting the MOH in equipping the Causality Committee secretariat to ensure relative investigations are conducted with the AEFI before submitting a final report to the health minister.



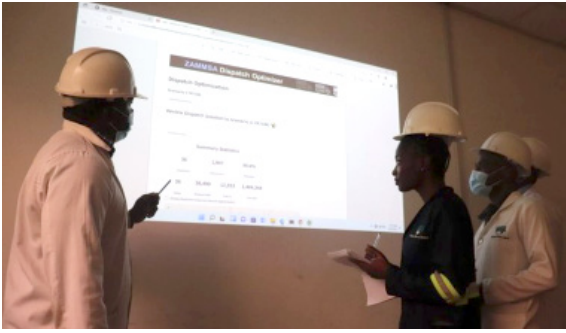
Surveillance site visit at vaccination center in Angola  
Photo by GHSC-PSM

## ZAMBIA



# ZAMBIA MEDICINES AND MEDICAL SUPPLIES AGENCY (ZAMMSA) CENTRAL LUSAKA, SUCCESSFUL IMPLEMENTATION OF THE PILOT DISPATCH ROUTE OPTIMIZATION TOOL (DRO)

Until recently, Zambia Medicines and Medical Supplies Agency (ZAMMSA) Central Warehouse in Lusaka used visual inspection and manual route planning to determine the kind of orders and amount of stock such as antiretrovirals, HIV test kits, ACTs, LAB, and family planning & reproductive health commodities to be loaded onto its trucks. As a result, the schedule and route of third-party logistics (3PL) vehicles were not aligned with the actual needs of the medical warehouses and health facilities, and that led to delayed and incomplete orders, among other discrepancies. ZAMMSA Central Warehouse in Lusaka has implemented a new GHSC-PSM-designed data software system tool to change that narrative. The Dispatch Route Optimizer (DRO) reconfigures the volumetric order data, distribution schedule, and the number of vehicles to be used, making it easier to load the vehicles with the appropriate quantity of health commodities.



The Dispatch Route Optimizer (DRO) a software system tool that reconfigures the volumetric order data, Zambia:  
Photo by GHSC-PSM

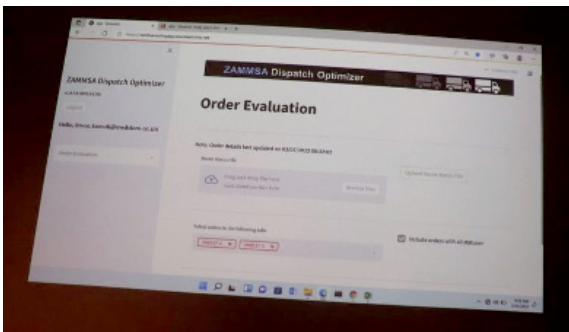
Since its implementation in October 2021 at ZAMMSA Central Warehouse in Lusaka, there has been a reduction in the overall number of pending 3PL purchase orders that resulted in improved on-time delivery of health commodities to the respective health facilities. This has further increased the throughput of order processing and dispatching to the health facilities as evidenced by the number of orders being dispatched (1,400 orders before the DRO implementation to 3,050 orders per month after the implementation of the DRO). GHSC-PSM installed the Dispatch Route Optimizer at the ZAMMSA Central Warehouse in Lusaka in October 2021. GHSC-PSM plans to roll out in the provincial regional hubs during 2022.

This initiative is well-aligned with the mission of the project to strengthen the in-country supply chain through innovation and new technologies are driven by data from the field, says GHSC-PSM director center logistics - Zambia, noting that it also improves business productivity and growth by providing delivery vehicles with the most efficient routes.

### HOW HEALTH FACILITIES COMMODITY ORDERS WORK IN ZAMBIA

The ordering policy has been devised based on a PULL System where health facilities place orders in a report form (stock status), which triggers the central warehouse to collate the requested health supplies and arrange the distribution downstream to the health facilities either direct or through the regional hubs using 3PL or ZAMMSA owned delivery vehicles. Before implementation of the new tool, the distribution was being done ineffectively and inefficiently because the established routes, number and size of vehicles assigned to those routes were not aligned with the volume of orders made by health facilities. On any given day, there were too many or few vehicles or simply inadequate space on the vehicles to efficiently distribute the commodities ordered. This caused many challenges such as:

- Only partial orders would make it on the delivery vehicles.
- Facilities canceled orders due to the lengthy delivery time.
- Canceled orders led to surplus stock back at the warehouse.
- Facilities experienced stockouts due to incomplete deliveries.



ZAMMSA Dispatch Route Optimizer (DRO) - Order evaluation

GHSC-PSM designed the Dispatch Route Optimizer (DRO) tool to help ascertain the number of dispatches, order volume (m3), the percentage in terms of truck utilization, number of stops per route, distances (km), fuel (L) usage, and costs (USD) associated with the overall distribution per route. This has helped to adequately plan the number of delivery vehicles needed per each route. As evidenced in the last distribution cycle, after the introduction of the DRO, the schedule adherence rate increased from 50 percent in the 3rd quarter of 2021 to 99 percent in the 4th quarter distribution cycle of 2021 translating into more orders being delivered to their respective health facilities thereby increasing health commodity security at the service delivery point level.

Staff morale at ZAMMSA Central Warehouse in Lusaka has also improved as the frustration of having stock left behind has been eliminated through efficient and effective vehicle allocation and utilization to match the order quantity. This greater sense of efficiency has improved the overall staff morale, says ZAMMSA Central Lusaka senior management.

# LESOTHO AND NAMIBIA SURPASS TARGETS FOR HIV EPIDEMIC CONTROL



Lesotho and Namibia were recently announced as two of six African countries that have achieved HIV epidemic control. These two countries had high levels of viral suppression and retention in care, indicating effective treatment programs that reduce infection rates and save lives, according to the findings. According to data from the Population-based HIV Impact Assessment surveys, Lesotho and Namibia have made remarkable progress toward HIV epidemic control.

## LESOTHO

Between 2016 and 2021, the GHSC-PSM project in Lesotho provided support to the government of Lesotho and PEPFAR priorities for global commodity procurement and logistics; Strengthening the national supply chain institutions; the Supply Chain Management Department (SCMD), the National Drug Services Organization (NDSO), the District Health Management Teams (DHMTs), and the human resources capacity at the central, district, and site-level; and global collaboration to improve long-term availability of health commodities.



Furthermore, the project ensured the continued availability of HIV, Tuberculosis (TB) preventive treatment (TPT), lab, Pre-exposure prophylaxis (PrEP), and Family Planning commodities at the central and facility levels to support partners to attain PEPFAR testing and treatment targets and objectives, including ARV optimization, 3HP transition, through various differentiated service delivery models like multi-month dispensing (MMD) scale-up and other Decentralized drug distribution (DDD) approach, all of which were essential to guiding the country towards the HIV epidemic control.

In Lesotho, 90 percent of HIV-positive adults were aware of their status, 97 percent were receiving antiretroviral treatment, and 92 percent were virally suppressed.

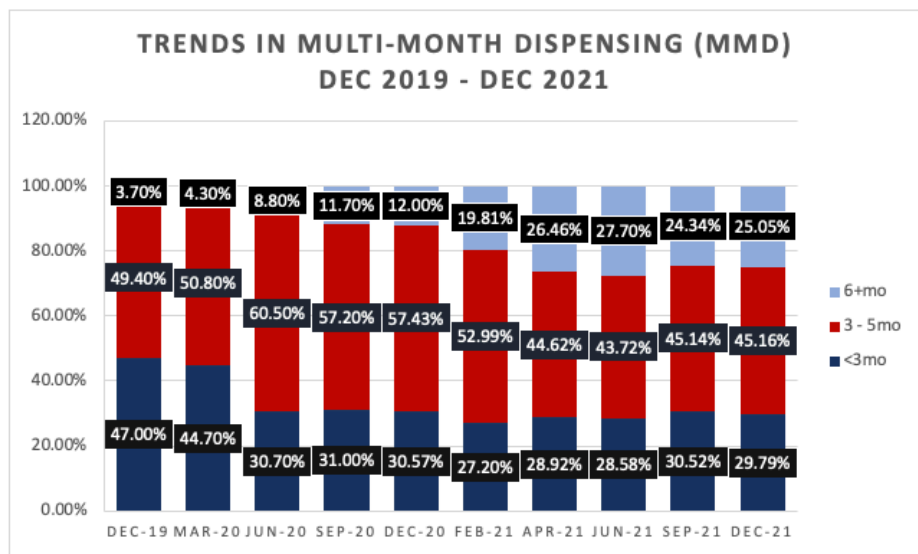
## NAMIBIA

There is high access to HIV care in Namibia with more than 190 000 clients actively on ART treatment indicating significant progress towards reaching or exceeding the UNAIDS 90–90–90 targets.

The project in Namibia implements various supply chain and technical assistance activities to ensure uninterrupted supplies of ART medicines in the country. Technical assistance is provided to the Central Medical Store in forecasting and quantifying needs for ARVs in the country. This is done to ensure that adequate supplies of medicines are available. The project uses various tools and methods to ensure the accuracy of forecasts. In 2019, GHSC-PSM assisted Namibia to develop a needs-based budget methodology that used various parameters to ensure that the national budget was distributed equitably to all the country's 14 regions. Every year since then, CMS and the Ministry of Health and Social Services (MoHSS) depend on the project to assist in allocating budgets to the health facilities.

In 2019, GHSC-PSM assisted the MoHSS in changing ART treatment guidelines. The project played a key role in bringing in the new treatment Tenofovir, Lamivudine, and Dolutegravir (TLD) pills in 90 count and 180 count bottles to make it easier for pharmacy staff to implement MMD in three- and six-months multiples. Some of the product was procured directly and forecasting technical assistance was provided to the MoHSS for government procurement.

When the COVID-19 pandemic began in 2020, GHSC-PSM played a critical role in predicting supply chain shocks. The project provided technical assistance in quantifying and pushing the stock to facilities to decongest facilities. The project advocated for multi-month dispensing through the ART Supply Chain Technical Working Group (MMD). For this to be implemented, facilities needed to have enough stock to get the process started. This intervention was successfully implemented, and the project assisted the MoHSS by monitoring progress. At the outset in 2019, 3% of patients received 6 months of ARVS; by December 2021, this had increased to 25%. MMD has been associated with increased adherence, viral load suppression, and improved patient outcomes.



Namibia's trends in multi-month dispensing (MMD) between Dec 2019 - DEC 2021

Controlling the epidemic necessitates collaborating and accelerating efforts to identify and connect those most vulnerable to HIV infection with treatment and prevention services.



# INDUSTRY NEWS

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## Guidance for Developing a Specimen Transport and Referral System for Viral Load and Infant Virologic HIV Diagnosis Testing Networks

This guidance, co-authored by the US Centers for Disease Control and Prevention and the Clinton Health Access Initiative, can assist countries in developing a well-coordinated, standardized, well-functioning, effective, and efficient specimen transportation system. National HIV care and treatment programs continue to decentralize services to primary health care centers to provide patients with improved access, adherence, and treatment continuity.

Check out the guide here: [Guidance for Developing a Specimen Transport and Referral System for Viral Load and Infant Virologic HIV Diagnosis Testing Networks - African Society for Laboratory Medicine \(aslm.org\)](#)

## The HIV Laboratory Waste Cost Assessment Framework (WCAF)

The HIV Laboratory Waste Cost Assessment Framework (WCAF) is a tool to support laboratories with a standardised format for forecasting waste disposal costs for HIV viral load (VL) and early infant diagnosis (EID) to country level program managers for country operational plan (COP) planning. Check out the Framework here: [The HIV Laboratory Waste Cost Assessment Framework \(WCAF\) - African Society for Laboratory Medicine \(aslm.org\)](#)

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# UPCOMING EVENTS

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## 32nd European Congress of Clinical Microbiology & Infectious Diseases

ECCMID, as the world's premier Clinical Microbiology & Infectious Diseases event, brings together experts from many fields to present their latest findings, guidelines, and experiences to an audience of over 14,000 colleagues. The Hybrid/Virtual Conference will take place in Lisbon, Portugal from April 23-26.

[ECCMID 2022](#)

## World Health Summit 2022

The World Health Summit 2022 seeks to strengthen exchange, stimulate innovative solutions to health challenges, foster global health as a key political issue, and promote the global health debate in the spirit of the UN Sustainable Development Goals: SDG 17 "Partnership for the Goals". Conference October 16–18, 2022.

[World Health Summit - World Health Summit](#)

## The 24th International AIDS Conference

AIDS 2022 will call on the world to come together to re-engage, define future research agendas, shift latest evidence to action, and chart a new consensus on overcoming the HIV epidemic as a threat to public health and individual well-being. Hybrid/Virtual Conference from 29 July 29-2 August 2022 in Montreal Canada.

[AIDS 2022, the 24th International AIDS Conference](#)

# RESOURCES

## **African Society of Laboratory Medicine (ASLM)**

ASLM is an independent, international, not-for-profit organization that coordinates, galvanizes and mobilizes stakeholders at the local, national, and international levels to improve local access to world-class diagnostic services and ensure healthy African communities now and for the long-term.

<https://aslm.org/>

## **Africa Resource Center (ARC)**

ARC works with ministries of health to address the critical areas for building more efficient and effective health supply chain systems.

<https://www.africaresourcecentre.org/>

## **COVID-19 Resources**

GHSC-PSM project is closely monitoring COVID-19 spread and working to mitigate its impact on the global health supply chain.

<https://www.ghsupplychain.org/COVID-19-Resources>

## **Confronting Substandard and Falsified Covid-19 Vaccines: Strategies and tools for global settings**

High global demand and insufficient supply have resulted in an inequitable global distribution of COVID-19 vaccines, creating an economic incentive for falsified vaccines and opportunities for substandard vaccines, resulting from an unintentional error in production, distribution, storage, and handling. To help address this issue, the U.S. Pharmacopeia (USP) has released this new resource.

<https://www.usp.org/covid-19/vaccines>

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## **USAID GLOBAL HEALTH SUPPLY CHAIN PROGRAM**

Procurement and Supply Management

# ABOUT US

The USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project enhances the health care experience in the communities we serve through transformative supply chain solutions. GHSC-PSM purchases and delivers health commodities, strengthens national supply chain systems, and provides global supply chain leadership to ensure lifesaving health supplies reach those in need, when they need them. By working closely with country partners and suppliers worldwide, the project aims to promote wellbeing and help countries develop sustainable supply chain systems. GHSC-PSM has programs in nine countries of Southern Africa: Angola, Botswana, Eswatini, Lesotho Malawi, Mozambique, Namibia, Zambia and Zimbabwe. For more information go to <https://www.ghsupplychain.org/PSM>.